# 2020/2021 Social Responsiveness Report A COVID-19 themed report

### Contents

Executive Summary	3
Methodology	16
Centre for Higher Education Development	18
Faculty of Commerce	27
Faculty of Engineering and the Built Environment	35
Faculty of Health Sciences	43
Faculty of Humanities	91
Faculty of Law	118
Faculty of Science	131
Properties and Services	140
Student Initiatives During COVID-19	142

### **Executive Summary**

The outbreak of the COVID-19 pandemic brought into sharp focus the enduring social and economic inequalities that continue to afflict South Africa, the African continent, and the world.

South Africa, according to World Bank data, is the world's most unequal society, divided by forms of racialised inequality that emerge out of its history of colonialism and Apartheid. The stark inequality in our social order became significantly more visible when our nation was suddenly plunged into a state of disaster a year ago. Under Lockdown Level 5, millions of South Africans who depend on a daily or weekly income for survival joined millions of others who were destitute and vulnerable long before the pandemic began.

The virus has thus reinforced local forms of inequality. For examples, in crowded inner cities, townships, and informal settlements it is impossible for many to socially distance or self-isolate if they were infected. The problem of space is compounded by a range of other factors; besides being overcrowded, many of our poorest communities also have inadequate access to health care, water, and sanitation. Such communities also tend to have high rates of diabetes, hypertension, HIV, and tuberculosis – comorbidities that increase the risk of infection and often exacerbate the symptoms of COVID-19. The point is, the things that might keep us safe – social distancing, washing our hands, strong immune systems – are simply not possible for many residents.

It is against this backdrop that important questions should be asked about the role of institutions in working to ameliorate the impact of COVID-19 in South African society. In the context of universities, as knowledge producers, a much more significant question that needs to be asked is how universities bring to bear their (knowledge) resources to mitigate the impact of the pandemic. The pandemic has thus forced us to ask deep questions about the role of the university as a publicly funded social institution and to investigate, for example, what the core business of the university should be and how to deliver on this. Although teaching, research, and community engagement remains central to universities' understanding of their role in society, the concept of "core business", the question of what constitutes the purpose of the university, both in South Africa and beyond, is subject to ongoing debate and negotiation. The multiplicity of conflicting but coexisting narratives about what universities should do in South African society – such as producing excellent research, preparing a labour force, or addressing social inequalities – exposes a persistent tension surrounding the purpose of a public university<sup>1</sup>.

The COVID-19 pandemic has wreaked havoc throughout the world, leaving no institution unaffected. It is interesting to observe how the resources (in the form of research, teaching, and service capacity) of universities have been marshalled to respond to this pandemic. Throughout the higher education sector, staff and students are feeling the strain of campus closures, disrupted research, the challenges of working from home, and more. Teachers and students of the medical sciences have had to step up as frontline workers in unprecedented ways.

Despite these challenges, universities everywhere have responded to COVID-19 in creative and often remarkable ways. For this report, we provide an overview of a wide array of activities that the UCT community has been engaged in, in response to the crisis.

<sup>&</sup>lt;sup>1</sup> Swartz, R., Ivancheva, M., Czerniewicz, L. et al. Between a rock and a hard place: dilemmas regarding the purpose of public universities in South Africa. High Educ 77, 567–583 (2019). https://doi.org/10.1007/s10734-018-0291-9

At UCT, we have been careful to define social responsiveness as more than volunteer outreach, instead stressing the importance of engagement and the objective of putting knowledge to work in ways that address pressing social and economic issues. By adopting this approach, we underline the interconnectedness between research, teaching, and engagement (i.e., engaging a broad-spectrum of stakeholders beyond campus grounds) in pursuing the core business of a university. With the outbreak of COVID-19, we thought it was important to maintain this approach and engage with the activities submitted for this report with that lens.

In this executive summary, we analyse some of the innovative research, teaching, and practical actions that reflect the deep commitment of staff and students to social responsiveness during this time as a way of making visible the meaning of our work in society. The pandemic made it difficult to carry on with business as usual. In thinking about a conceptual approach to the executive summary the social responsiveness task team<sup>2</sup> decided to foreground the themes that were evident in the work. The obvious theme is, of course, the challenges that impacted on the academic enterprise. It is not always useful to get stuck on challenges. In the midst of a crisis, resilient organisations are resistant to the impacts of disruption by adapting to new ways of conducting their business. It is against this backdrop that the executive summary foregrounds challenges, opportunities and resilience as themes that provide a framework to analyse faculty submissions. These themes should not be read in isolation from one another but should instead be seen as an integral whole. A faculty initiative, for example, may be seen as a challenge in one context but can also be seen as an evolving practice which may yield new opportunities for research and teaching in another. Some faculty initiatives may be clustered under challenges, but they can also be seen as efforts to build resilience amongst staff and students. Many of the submissions we received straddle these lines seamlessly.

#### Resilience

UCT's conceptualisation of the term "engagement" is based on a "two-way" approach to interacting with community partners to address societal needs. This philosophy emphasises a shift away from an expert model of delivering university knowledge to the public toward a more collaborative model in which community partners play a significant role in creating and sharing knowledge to the mutual benefit of both institutions and society.

Looking at the submissions for the report, it is important to understand to what extent the outbreak of COVID-19 disrupted this two-way interactive model of engagement. Given the disruption of "normal" life, it would have been easier for most university-community partnerships to revert to a one-way approach to delivering knowledge and services to communities. Some faculty projects, however, have managed to weather the storm and carry out their social responsiveness work, albeit in new, different, and more innovative formats.

Following the outbreak of the pandemic, a collaborative research project involving the African Gender Institute, the Centre for Theatre, Dance, and Performance Studies (both in the Humanities Faculty), as well as the Sex Worker Education & Advocacy Task Force (SWEAT – a Cape Town-based non-profit) continued their work and produced a performance titled *COVID Waarheid* (*COVID's Truth*) that was released from 10-12 September. This collaboration managed to stage a performance amidst the pandemic and lockdown restrictions because of the strength and resilience of the partnership.

<sup>&</sup>lt;sup>2</sup> Dr Patti Silbert, Dr David Maralack, A/Prof Merle Sowman, A/Prof Janice McMillan, Sonwabo Ngcelwane

Members of the project worked together to change the training methodology so that performer could receive training virtually. The revised module entailed using WhatsApp to create a collective script from different autobiographical points of view.

Another example of how a partnership adapted to a "new normal" is that of the Environmental and Geographical Sciences (EGS) One Ocean Hub research team. Unable to proceed with regional focus groups or interview fishers directly, the team collaborated with the Rhodes University One Ocean Hub Emphatheatre Group at the Environmental Learning and Research Centre. Together, they established the Coastal Social Justice Network WhatsApp group for 20 fisher leaders from around the coast. This WhatsApp group – for which mobile data was provided – enabled these leaders to share information, raise question, and request assistance on a wide range of COVID-19 and fishery-related challenges they were experience.

The opportunity for the fishers to engage with the One Ocean Hub researchers on WhatsApp thus disrupted the boundaries between theory and practice, and academic and applied research, and forced the research team to reflect on their own role as scholar-activists in new ways. The resilience of these partnerships was made possible by their ability to adapt to a new context and leverage technology to build reciprocal relationships with marginalised communities. By maximising the use of available technologies, these partnerships have managed to adapt the "two-way" interactive model of engaging with community partners under pandemic circumstances. In the context of community engagement, this model is important because it upends traditional modes of engagement, which are usually defined by strict knowledge hierarchies. Traditional approach to outreach and engagement are ultimately anchored in concepts about the origin of knowledge: how knowledge is produced, where knowledge is "found", and how knowledge flows and is distributed.

A group of 38 engineering students could not be put off by the outbreak of COVID-19 in fulfilling a degree requirement. Working in virtual teams, these students built on UCT's input into the Data for Municipal Infrastructure Assets (Data4MIA) initiative. Each of the nine groups tackled an allocated project in municipal infrastructure, with the students analysing and compiling data to drive well-informed decision-making around infrastructure priorities and spending at a municipal level. The initiative is a partnership between EBE, the Municipal Infrastructure Support Agent (MISA) and Engineers Without Borders South Africa (EWB-SA). Projects ranged from an assessment of wastewater treatment technologies on waste plant functionality and compliance to a comprehensive evaluation of the appropriateness of municipal Service Delivery and Budget Implementation plans. One group produced a draft masterplan for the Wild Coast Development Corridor. Another considered whether poor municipal asset management was the result of municipalities' shortcomings or the funding models used. Prof Pieter Levecque, one of the project drivers, said that the students' work had contributed to the allocation of nearly R750 million for infrastructure asset management planning in the largest conditional infrastructure (Municipal Infrastructure Grant), through a 5% provision.

Despite the challenges of the Coronavirus pandemic this year, the Faculty of Health Science has grown stronger as an organisation. Firstly, it never stopped with its services to vulnerable populations. Recognising that South Africa has a severe HIV and TB epidemic and recognising the potential for Covid-19 and the national response to draw much-needed attention away from HIV and TB research and services, the department ensured that its work continued under strict health protocols. Another important aspect of the FHS's response to the pandemic was its responsibility to ensure that the community sites were kept informed of the virus and COVID-related safety measures.

This was particularly urgent at the beginning of the pandemic in March, as information and guidelines were being updated regularly. To this end, the Faculty held a series of Desmond Tutu Health Foundation (DTHF) community webinars in collaboration with members of our community advisory boards and civil society groups. The webinars provided a platform for information sharing during the extraordinarily fast COVID-19 news cycle. While it was crucial for staff to respond to the pandemic; it was also essential that other health responses did not suffer because of it. Resilience requires people in organizations to adapt and thrive even in tumultuous conditions and it is this adaptation which always yields new opportunities which may enrich our scholarly practice.

#### **Opportunities.**

Although the outbreak of the pandemic disrupted research plans, it also opened new research paths for many academics. Before the pandemic hit SA's shores, Co-Pierre Georg's, (an Associate professor at the School of Economics) practice (research, teaching, and service) was primarily focussed on financial stability issues, financial technology, and data privacy. With the outbreak of the pandemic he started working on two initiatives. The first is a micro-simulation model of Covid-19 for South Africa that considers the roles of behaviour and socio-economic inequality in the transmission of COVID-19. The second is Covi-id and it is an initiative to promote privacy preserving contact tracing via QR codes. Co-Pierre Georg's views on the role of a university during a crisis are illuminating. He posits that the first major contribution that universities can make is rapidly disseminating key information about the pandemic and its social and economic effects to the public. The second contribution that universities can make is universities needs of policy makers, which are acting under massive uncertainty.

Another example of a research unit which ceased new research opportunities made possible by the pandemic is the Research on Economics of Excisable Products (REEP). Its research focuses on economic aspects related to a variety of excisable products, specifically tobacco, alcohol, cannabis, and sugar-sweetened beverages. When the government banned the sale of tobacco products as part of its strategy to curb the spread of the coronavirus, REEP, using a large online survey method, decided to test the effect of the ban on smokers' behaviour. Government argued that cigarettes were non-essential products, and that smokers were more likely to get seriously ill if they became infected with the virus. The findings from the REEP study revealed that about 7.5% of respondents had stopped smoking cigarettes. However, of the remaining smokers, more than 90% indicated that they had purchased cigarettes was about 90% higher than pre-lockdown and was increasing at a rate of about 5% per day. Many continuing smokers had switched to brands that were often regarded as illicit before lockdown. Respondents also indicated that they were more likely to share cigarettes during lockdown than pre-lockdown. This was an important finding given the risk of contracting coronavirus from sharing cigarettes.

REEP concluded that the sales ban largely failed. The ban entrenched an already virulent illicit market, estimated at around 30–35% of the total market in 2017. A third of the cigarettes sold in 2017 evaded cigarette excise taxes. The government has been losing billions of Rands in excise taxes. REEP sent the members of the National Coronavirus Command Council (NCCC) their reports, in the hope that they would consider these results in their deliberations. Research into policy making traverses many policy cycles before it is considered by government. It is therefore unclear whether the findings of REEP were taken into considerations in the NCCC deliberations.

In the area of policy research, the Development Policy Research Unit (DPRU) has been actively involved in academic contributions to policy research, public debate, and government responses to the Covid-19 pandemic. Its research findings fed into decisions regarding the extension of social grants, including the introduction of the COVID-19 Social Relief of Distress Grant (SRD) and the increased scope of the Employment Tax Incentive (ETI) for firms.

Collaboration across universities and disciplines, as well as with several government departments is one of the key insights that was brought about by the pandemic. Drawing on their work on the impact of social grants on household welfare, as well as the gendered labour market impacts of the lockdown, researchers at the Development Policy Research Unit (DPRU) contributed to a large cross-disciplinary Covid-19 Country Report run by the Department of Planning, Monitoring and Evaluation (DPME) together with the National Research Foundation (NRF). Here the DPRU is coordinating inputs for a chapter on labour markets, social policy and vulnerability as well as providing research inputs from the work outlined above. The aim is to create a comprehensive understanding of the impacts of Covid-19 in South Africa and assess the policy responses to the pandemic thus far.

The Division of Biomedical engineering in the Department of Human Biology developed exciting innovative solutions that have gone a long way in ensuring that we continue to function effectively despite this pandemic. One of those innovations was the OpenAir, a UCT's low cost, simple solution using off-the-shelf products that was entered into the National Ventilator Project (NVP) bid (with CSIR as a manufacturing partner). Infrastructure like UCT's Clinical Skills Centre played an integral role in allowing biomedical engineers to conduct usability testing on CSIR's ventilator solution which eventually led to SAHPRA approval (which one needs to produce and distribute medical devices in the country) and subsequently 10 000 units have been produced and another 9000 units are beings made. A total of 19,000 ventilators are being produced and sent all over the country during this time of crisis.

The COVID-19 pandemic resulted in the team steering its focus towards devices that mattered most for this type of disease – namely PPE, medical apparatus such as ventilators, and secondary devices to prevent further spread of the virus.

One of the biggest concerns during the COVID-19 pandemic was the possibility that at some point the demand for health services could potentially far outstrip the capacity of the health system to meet such demand. This called for additional capacity to support existing health system resources (personnel and infrastructure to increase testing capacity).

The Institute of Infectious Disease and Molecular Medicine (IDM) played a leading role in a multiinstitutional national initiative to provide "surge" diagnostic testing capacity for SARS-CoV-2 during the peak of the COVID-19 epidemic. This involved CIDRI-Africa in Repurposing research laboratories to support COVID-19 diagnostic services. Within a short time, teams of staff and student volunteers from the Wellcome Centre for Infectious Diseases Research in Africa (CIDRI-Africa), which includes Schäfer and her group, and the South African Tuberculosis Vaccine Initiative (SATVI) – both based at the IDM – were assembled under the leadership of Professors Robert Wilkinson and Tom Scriba. Expertly managed by Nicole Bilek (SATVI) and Fatima Abrahams (CIDRI-Africa), they worked closely with Dr Hsiao and other experts in diagnostic pathology on the UCT/NHLS joint staff, whose support and external quality assurance were instrumental in enabling the IDM teams to begin surge SARS-CoV-2 testing in June. The testing protocol established in the IDM achieved a turnaround time of approximately 12 hours and successfully delivered more than 6000 tests during the peak of the epidemic. During the pandemic, the Cape Metropole acute services' inpatient capacity was extended through the commissioning of designated intermediate care facilities which are housed in re-purposed buildings. One of these buildings is the Cape Town International Conference Centre (CTICC), which was converted to a field hospital with 862 beds. The outbreak of the health pandemic provided opportunities for health practitioners to offer their professional services in the many field hospitals that sprang up. Colleagues from the Division of Family Medicine (School of Public Health and Family Medicine) joined other academics from the Division of Emergency Medicine and the Primary Health Care Directorate to play active roles in the operational and clinical management teams of the "Hospital of Hope".

COVID-19 also provided an opportunity for academics to empower communities through the media. Various departmental members contributed to printed media such as Daily Maverick, News24, You and Milady magazine with publications on mental health, wellbeing and self-care in the time of COVID-19. Local radio stations such as KFM, RSG and hospital radio stations used many departmental members for talks on mental health, parenting, or supporting people with disabilities during lockdown. On departmental websites a special section was created for COVID-19 resources. Dr John-Joe Dawson-Squibb, Senior Lecturer in the Division of Child & Adolescent Psychiatry collated and curated relevant and freely available resources for staff, patients, families and the broader community.

The various units comprising the Centre for Social Science Research (CSSR) responded to the challenges arising from COVID-19 in multiple ways. Whilst most fieldwork was suspended, CSSR researchers contributed to research and public debate regarding the effects of COVID-19 and appropriate policy responses. Researchers have written a steady stream of online articles (for sites including GroundUp and the Daily Maverick) as well as new Working Papers. A number of contributions have been made to developing educational materials and towards the publication of academic papers.

The COVID-19 pandemic revealed the extreme inequalities that exist in our society. While all of us faced uncertainty during the pandemic, there was a sector of society that bore the brunt of the pandemic. It was during this time that the those of us who work directly with (in) these communities played a critical role. Below are some of the initiatives that are involved directly with different communities during the COVID-19 pandemic. Some of that work, e.g., supporting members of those communities, customized COVID-19 health information communicated to these communities as well as supporting the communities on how to manage the remains of loved ones during the pandemic was especially commendable.

Although UCT's social responsiveness policy framework impresses upon academics to draw on their scholarly expertise to engage with external scholars, the current pandemic context challenged the social safety nets which supported local communities in times of need. This provided an opportunity for many staff and students to pursue their civic duties. Staff members in the Department of Psychiatry and Mental Health were involved in several direct initiatives to support local communities. For example, the Division of Child & Adolescent Psychiatry provided food parcels and blankets to children who required emergency care during lockdown. At Groote Schuur Hospital registrars donated cell phones to inpatients without phones so that they could remain connected with their families during lockdown. The Drakenstein Child Health Study (led by Paediatrics in collaboration with the Division of Psychopharmacology & Biological Psychiatry) provided all study participants with masks, and supplied food vouchers to those in need.

The Lentegeur Spring Foundation led a 'Food Drive' that raised over R100,000, and with additional donations of vegetables from another Spring Foundation project, the Lentegeur Market Garden was able to support more than 200 households with food hampers to support over 1000 people in their local community. The Market Garden also established contact with a number of soup kitchens and all excess produce was made available to provide meals to the many who were struggling.

All these activities may not necessarily be used by academics in the reward and recognition processes of the university, but they provide insight into other dimensions of social responsiveness such as outreach. UCT policy documents do not make any reference to outreach due to the inherent problems in the concept of community outreach. Community outreach efforts can be problematic for all involved if they, consciously or unconsciously, have no built-in plans to sustain the efforts and build relationships with those being 'served'. One-dimensional recognition of assets and overlooking or ignoring issues of power, privilege or the impact of differences are some of the complexities inherent in many community outreach efforts. Despite the complex and problematic power dynamics a community outreach approach can serve the purpose of addressing some short term, immediate needs of individuals and communities. Some of the FHS's submissions have disrupted UCT's conceptualisation of social responsiveness which has an external orientation. One such submission is the pathology collection project which is a collaborative project between UCT and Nelson Mandela University (NMU) in the Eastern Cape. UCT is contributing a core collection of pathology teaching specimens (approximately 100 specimens); which the Pathology Learning Centre would permanently loan to NMU. As NMU is a relatively new university, a collection of pathology specimens would be invaluable as they seek to establish their own pathology curriculum. Ultimately, a pathology loan collection can be used as a valuable teaching resource both in the face-to-face setting and as an important remote training resource. This is indeed a very interesting collaboration but it also raises questions about UCT's policy which underscores collaboration with external 'non-academic constituencies'.

The report from FHS also included an account of the activities of dedicated staff and students who put their personal safety and lives at risk to support various departments and entities within our own faculty as part of their social responsiveness engagement. These submissions raised fundamental questions about UCT's response to its own community.

The role played by CILT in supporting staff and students with online teaching and learning also raises questions about UCT's 'strict' external orientation in terms of how it understands social responsiveness. One argument in support of CHED's work as socially responsive (in terms of UCT's definition) is that when staff were required to work remotely and students were required to leave residences to minimise contact, they became part of the external community. It is in this context that some argue that all the teaching and learning support provided by CILT is seen as falling within UCT's definition of social responsiveness. Of course, these arguments can be contested but they provide a different lens to UCT's conceptualisation of social responsiveness. Given the 'new normal', this may be an opportune time for the university to rethink its conceptualisation of social responsiveness.

As COVID spread globally, it became clear that not only was it wreaking havoc on physical bodies, but it was severely impacting individuals at a social and emotional level. Yet, while there has justifiably been an emphasis on medical responses, too often Social Science and Humanities perspectives have been ignored, leading in some instances to policies and practices that have been as damaging as the virus – some would argue more so. So glaring is the absence of Humanities disciplines in these processes that the South African Academy of Science made a special call for greater involvement of Social Scientists among decision-makers guiding government.

Anthropology's staff have taken the call seriously, and focused on public intellectual work, engaging intensively in a variety of academic and social media to name the challenges that the virus poses to social life; to identify the fracture lines along which it has run; and to inform the public, both in South Africa and elsewhere, of how attempts to manage COVID's course are impacting on society. In the documentary film field, the physical limitations imposed by covid-19 created opportunities for engaging online with festivals, markets, platforms and thought leaders from Africa and beyond, and The Centre for Film and Media Studies seized the opportunity to foster relationships and to build its reputation as an institution that offers a world class learning in documentary film production and distribution.

Despite the challenges, COVID-19 provided opportunities to collaborate with renowned international experts in efforts to help communities cope with the mental and emotional stresses and anxieties caused by the pandemic. In response to the growing need for psychosocial support in schools, as a result of the pandemic, and in collaboration with Dr Gilbert Kliman (USA) and Jennifer Davids (UK), the Schools Improvement Initiative (SII) embarked on an initiative to support learners between Grade R and 12 through the development of three interactive, age-appropriate workbooks. Dr Kliman, a world expert on the emotional and psychological effects of large-scale situational crises, is a child and adolescent psychiatrist and psychoanalyst. He is Medical Director of the Children's Psychological Health Center (CPHC), San Francisco. Jennifer Davids is a child, adolescent and adult psychoanalyst in London and Director of the Africa Projects of the CPHC. The purpose of the workbooks is to support children and adolescents in facing trauma and loss through the construction of narrative, oral and visual symbolisation and the involvement of their teachers or 'adult helpers' such as the UCT social work students who are place in the SII schools. Through 'telling their story', young people gain a sense of personal contribution to a historic event, rather than being helpless and silent.

The fallout from the pandemic created new opportunities but it will be amiss of us not to point out the profound challenges that staff, students and our community partners grappled with in executing their duties.

#### Challenges

As indicated earlier, the COVID-19 pandemic has had a pervasive impact on all clinical, teaching and research activities and has profoundly changed the way we work.

Students of the Department of Social Development do practical internships in different organisations across Cape Town as part of the statutory requirement of the Bachelor of Social Work programme. They are required to practice individual work, group work and community work. The field practice programme has a rich history of longstanding relationships with hospitals, schools and non-governmental organisations (NGOs). The field practice had to be temporarily suspended for the first time in the more than 80-year history of the programme and this affected both the students and placements, many of whom are reliant on students to offer social work services. The clients seen by the students cover every vulnerable group and the sudden suspension of the programmes raised concern for the emotional well-being of these clients.

The COVID-19 context has impacted significantly on all levels of the School Development Unit's (SDU) engagement with schooling. Learners, particularly from poor and vulnerable communities have been most disadvantaged by the national and provincial education department's efforts to provide online support and teaching materials for 'at home' learning.

Most homes in the Western Cape have not been able to access these online resources due to the lack of adequate computer/phones, network and WiFi/data. This has sharply amplified the inequalities in our society, and the urgent need at an educational level to address the gaps that exist in our schools. Despite these challenges, SDU redesigned and reconceptualised its interventions to address the needs of the schools in support of the Western Cape Education Department's implementation of the Revised Annual Teaching Plans and introduced several psychosocial support strategies for learners and teachers.

What we do not often talk about is the pandemic's toll on the well-being of academics, staff and students. Human Biology -Transformation and Education Committee (HUB-TEC) conducted a departmental survey following the commencement of lockdown. This survey brought to light the many problems HUB staff and students experienced during this time. Examples included, feelings of isolation, experiences of anxiety toward remote learning, data access, communication, the separation of home and work life, depression and general uncertainty regarding the future. HUB-TEC initiated a series of talks which were responsive and directed toward wellness of staff and students during the pandemic. The committee thus invited influential thought leaders to speak to different aspects of the challenges that may have been experienced by staff and students. Some of these talks focused on human rights during the pandemic, managing finances during the pandemic, mental health, and well-being during COVID-19 and awareness of gender-based violence and wellness. These talks were mainly attended by staff and students, however certain talks included members of other universities as well as members of the public.

Another challenge was that the concentration of resources on COVID-19 related complications meant that other diseases did not receive adequate attention. Sadly, child and adolescent mental health services did not get the attention they deserved. Adolescents with mental illness still do not have a ward they can call their own. Psychiatric and mental health services for children and adolescents fell by the wayside as COVID became the new buzzword. Hospitals became places of fear and many parents did not want to attend appointments for fear of contracting the virus. Many patients therefore limited their hospitals visits to life-threatening diseases. Delaying or avoiding critical treatment places additional burden on hospital facilities and on the medical system in general.

The example of the work of the Schools Improvement Initiative (SII) in collaboration with Occupational Therapy (OT) and Speech-Language Therapy (SLT) reflects both an opportunity and a challenge with regard to the student-led campaigns in the SII partner schools. What emerged as an immediate challenge when students were onsite in the SII partner schools, was the difficulty teachers were experiencing in communicating with learners because of the mandatory mask policy.

The importance of mouth movements, facial expressions, voicing for language and literacy development was highlighted by the OT and SLT students during their professional practice placements in the SII schools. It became clear that the cloth masks were negatively impacting children's development, particularly for children learning a second or third language. Using SLT and OT theoretical knowledge and experience, the partnership came to understand the challenge within a social inclusion and occupational justice framework – that the masks prevented learners from engaging in the occupation of learning which limited their opportunities to engage in and learn communication. To ensure COVID health and safety for both the learners and the teachers and to support communication in the classroom, the idea of using see-through face masks emerged. The partnership between SII and OT hopes to advocate for the importance of see-through masks, not only for those with disabilities, but for all children to be able to access education and learning within the COVID-19 context.

According to Silbert and Galvaan<sup>3</sup> the significance of the interdisciplinary service-learning collaboration is the impact it might have institutionally and on curricula transformation. They argue that practices that encourage interdisciplinary collaboration between students help to strengthen community-based engagement with affordances both for the university and the learning site. At the level of the university, interdisciplinary collaboration creates opportunities to shift student professional practice, and for academic staff to explore ways in which new practices might inform curriculum transformation. At the learning site, interdisciplinary collaboration strengthens capacity of students to engage more effectively in SL that is responsive to the context, while at the same time exposing role players within the community to new practices.

The outbreak of COVID-19 disrupted teaching and learning sites. Occupational therapy students and NOAH collectively recognized that lockdown restrictions resulted in many residents not being able to engage in meaningful occupations or participate socially. They noted how this impacted on their health and well-being.

The national lockdown made it increasingly difficult for healthcare workers to stay in contact with their patients. Several public messaging initiatives were created during that time to maintain contact with patients and ensure that they received accurate information. At the beginning of the pandemic, the Perinatal Mental Health Project (PMHP) co-founded a coalition, Messages4Mothers, to develop and disseminate accessible information for mothers. These messages - developed for physical and mental health, parenting and mindfulness - were translated into several languages and adapted for multimedia platforms such as radio and the National Department of Health COVID-19 WhatsApp number. This reflects another example of an intervention which posed a challenge as well as an opportunity for innovative thinking in the development of messaging tools to access external communities.

The shift to emergency remote teaching had repercussions for student research projects in the creative fields. Sharing work-in-progress is standard practice in the world of filmmaking and this was already incorporated into the curriculum at the Centre for Film & Media Studies with screen production students. However, the various levels of lockdown made it difficult to redesign courses for remote and online teaching and learning.

Documentary film production and distribution have both suffered due to covid-19. In person filming became risky, theatres were closed and community screenings became impossible. Filmmakers and impact producers in the global north swiftly moved their work online, developing powerful strategies for using social media, online screenings and virtual audience interactions to continue their work. In the global south the task of reaching the audience is complicated by socio-economic factors, and it's simply not possible to engage audiences in informal settlements and rural areas on Facebook or at a virtual festival. This submission spotlights the point made earlier that the pandemic affected world countries disproportionally with developing countries bearing the most brunt.

The UCT students are central to the academic project and their anxiety and psychosocial concerns emerged in ways that were unprecedented. The uncertainty of whether students could return to residence, whether organizations could host students and the ever-changing social landscape exacerbated the sense for students that their university life had changed beyond recognition.

<sup>&</sup>lt;sup>3</sup> Silbert P, Galvaan R, Clark J (2018) 'Reimagining interdisciplinary collaboration through a university-school partnership, P74-91' in Partnership in Action-University-School-Community, Human Science Research Council, Cape Town

#### Conclusion

The disruption of 'normal' life caused by COVID-19 is transforming the role of the university in society, even its standard practices. Notwithstanding the challenges the executive summary alluded to earlier, there are a lot of positives that universities could build upon to make the core business respond to the challenges facing the country.

From the submissions, there is evidence that that the line which formerly demarcated society from science (science used more broadly) is regularly transgressed and that the resulting closer interaction of science and society signals the emergence of a new kind of science particularly in SA: contextualized or context-sensitive science. In its effort to mitigate the effects government assembled a team of scientists to provide evidence-based support to feed into its policy formulation processes.

The SA government introduced the Ministerial Advisory Committee (MAC) – an advisory group of health scientists who were given space on TV to talk the public through the strategy. This put health scientists in a unique position –a position normally reserved for economists – that government would be "following the science". This became a popular refrain in all government efforts in dealing with disaster management risk strategies.

Against a backdrop of a MAC comprised solely of medical experts, leading social scientists were calling for greater involvement in shaping government's mitigation policies drafted to manage the spread of the COVID-19 virus. Although there may not be any social scientists on the main advisory committee, in the second half of 2019 President Cyril Ramaphosa serendipitously convened a Presidential Economic Advisory Council (PEAC), a group of 19 national and international social scientists (mostly economists) to advise him. The presidency has been able to draw on this council when deliberating its response to the pandemic. With the PEAC, as with the medical sciences, there is a strong quantitative social science base to draw on. A group of economists, led by the Southern Africa Labour and Development Research Unit (SALDRU) at the University of Cape Town, made a major input to the announcement of an increase in the child grant. Community-university engagement is moving ahead at an accelerated pace, not as an academic fashion, but because bringing together all manners of knowledge from community wisdom to epidemiology is a matter of our very survival. COVID-19, it could be said, is advancing a new architecture of knowledge.

Engagement of scholars with government is in line with UCT's policy on engaged scholarship which enjoins scholars to draw on their scholarly expertise in engaging with external constituencies. In the case of COVID-19, the presidency and those working for the presidency, in preparing policy responses, convened an inclusive process to leverage available research strength to work on aspects of the socio-economic response, including labour market support measures. The members of the PEAC were centrally articulated into these engagements.

Another lesson learned from a review of submissions from faculties is that responses and solutions to the conditions and outcomes arising from COVID-19 are not bound by specific disciplines. Universities are structured along disciplinary lines, but many universities increasingly acknowledge the importance of interdisciplinary and transdisciplinary work and programmes.

The pandemic has revealed that it is not a simply a matter of epidemiology. COVID-19 revealed that survival is also a question of gender, of attention to issues of race and discrimination, of dramatic levels of inequality in income, land, food, digital access, police brutality and more?

All these questions reveal how various disciplines have had an important role to play in engaging with the effects of COVID-19. How does one understand the nexus of issues without one drawing on the insights of disciplines other than one's own? The need to deepen our understanding of the intersection of these complex issues requires that scholars work across disciplinary boundaries. Anything short of a transdisciplinary, interdisciplinarity and work with communities will only serve to scratch the surface and will not yield much in terms of deepening our understanding of the effects of COVID-19 and yielding solutions that are appropriate to local contexts.

Some of the submissions reminded us that UCT's social responsiveness policy framework has defined social responsiveness as "the production and dissemination of knowledge for public benefit", where such knowledge is generated and spread by means of "engagement with external constituencies". There were many submissions which used popular media to disseminate information to counter the effects of the pandemic. The dissemination process was made possible by the availability of online platforms which were used to reach far and remote communities. This is not to say that there were no communities that were inaccessible due to issues related to digital access and divide but, where possible, staff and students used innovative methods to access community partners. For example, researchers are launching partnerships with associations to advance their work, and their research networks are offering multiple webinars to all internet users instead of in-person seminars for peers in 'closed' research centres.

Another important lesson demonstrated in many of the cases submitted is the significance of resilience in community partnerships especially at a time of a health pandemic. There are a interesting examples of how partnerships between the university and society partners have turned to new, virtual ways of staying connected with communities and participants. They have maximized their use of social media platforms and community WhatsApp groups, becoming a resource for COVID-19 related information and ensuring that their participants were kept up to date. In one submission WhatsApp was a viable platform that afforded theatre group members an experience that connected them to material sustenance, community, and a sense of emotional ease. It is imperative that universities take the lead in thinking of radical virtual pedagogical tools that can also transform the lives of the most vulnerable. These tools can become useful in cases where teaching and learning community sites have been disrupted.

Many of the cases in this report illustrate interconnections between engagement and knowledge generation as most of the work generated journal publications and other non-traditional outputs. There are several outputs that are contained in the report and some of them were published in popular media to make them more accessible to the general public. The range of scholarly outputs referred to in the cases include policy advice, policy documents including draft legislation, strategic research to inform strategy monitoring reports, short courses, patents, artefacts and instruments, website information, popular journal articles or booklets, newspaper articles, submissions to government, evaluations or project reports, discussion papers and case studies. These products are described as scholarly in that they are all grounded in rigorous research, disciplinary expertise, or the application of research-based technology.

Some submissions, particularly from FHS, may not have intended to subject UCT's conceptualisation of social responsiveness under a microscope, but they did. UCT's definition of 'community' which is outward looking was exposed for its limitations in understanding that staff and students, in the context of remote teaching and learning, became a remote community which needed all kinds of support. With so many students, academics and staff working from home, there is no longer a physical separation between community and higher education. Our staff and students became one with the community.

Going forward UCT needs to engage with the limitations of its policy formulation and what that might mean for other processes of the university i.e., recognition and reward processes.

We pointed out earlier that universities, as knowledge producers, are implicated in the conversation regarding their role and response to a health pandemic that has literally brought the whole world to a standstill. We also posed questions about the need to subject universities to some scrutiny about how they are deploying their resources in engaging with this health pandemic which has had huge social and economic repercussions. Universities around the world have responded positively through research, teaching and service: intensifying research to find solutions, assisting their governments in developing ways to contain the pandemic, and finding other channels to deliver on their mandate.

In the context of UCT, the 2020/2021 Social Responsiveness Report curates some of the innovative and practical examples of how staff and students working with external partners responded to a pandemic. Throughout the report we saw use of scholarship and professional expertise to benefit the wider community, both locally, provincially, nationally, and throughout Africa. Many of UCT scholars conducted community-engaged research and outreach focused on COVID-19 awareness and education, address widespread misinformation about COVID-19 and provide an evidence-based response to the disease. We saw new collaborations and relationships emerge between universities, amongst scholars across disciplines and amongst scholars and various spheres of government and community-based organisations. All these developments point to a review of domain knowledge systems and for changes in the architecture of knowledge, recognising an ecology of epistemologies.

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### Methodology

The University Social Responsiveness Committee (USRC) decided that the 2020/2021 Social Responsiveness report will be a Covid-19 themed report.

The decision did not come as a surprise as the country and the world was in a grip of a devastating pandemic which had upended all sectors of society. Worldwide, over 2 million lives have been lost, and at the time of writing the report, SA was edging closer to 50 000 deaths due to COVID- 19 related complications. Unemployment, poverty, hunger, child hunger, GBV and police brutality have increased dramatically since the start of the pandemic in March 2020.

A Social Responsiveness Report Working Group was assembled to work on a concept note for the call for submissions from academics and researchers across all faculties. What informed the working group's thinking was the overwhelming evidence that universities around the world had responded positively through research, teaching and service: intensifying research to find solutions, assisting their governments in developing ways to contain the pandemic, and finding other channels to deliver on their mandate. Some universities came up with innovative ways of teaching students through online platforms. These innovative ways are, of course, not without challenges especially for vulnerable students.

In the context of UCT, there was much evidence of staff and students grappling with the challenges posed by the pandemic and engaging with the issues related to this crisis in many ways. For example, many lecturers had to tackle teaching in new and innovative ways since many students live in contexts that do not allow for technology and data-heavy modalities therefore needing to rely on asynchronous approaches – approaches that were very new to most teachers and students. Considering the impacts of the national lockdown on behavioural change, there has been an urgent need for an eclectic mix of responses and expertise.

The working group compiled categories which would guide faculty responses. Examples of how colleagues have responded are the following:

- Social Responsiveness and Public Health: Addressing questions related to the virus via various webinars, media platforms and public education initiatives,
- Social Responsiveness and Public Policy: Offering policy options for the containment and treatment for the virus as well social intervention programmes to mitigate the impact of measures and controls on the most vulnerable,
- Social Responsiveness and decision making,
- Teaching interventions responding to the COVID-19 context,
- Students' engagement with COVID-19 through social responsiveness projects
- New ways of engaging with external partners and communities.

To illustrate the kind of detail which was required from faculties, here is one category as an example. In the area of 'Teaching interventions responding to the COVID-19 context' the following is the kind of detail the working group was looking for:

- New ways of teaching; introduction of new course materials
- Finding ways of engaging and supporting community partners differently in your teaching
- Making students aware of the intersection of COVID-19 and other issues e.g. gender-based violence inequality

• Thinking more intentionally about the social/home contexts of learning and how these position students in an emergency remote teaching environment

Due to the varied nature of SR work at UCT, the working group agreed to welcome various forms of submissions e.g., case studies or 'portraits of practice', reflective pieces or pieces that might combine description and analysis. The key aim is to make visible the socially responsive nature of the initiative, the 'bigger why' of the work, in the context of the COVID-19 context. The deadline for submissions was 30 October 2020 but the USRC decided to extend it to 30 November 2021.

Faculties' submissions revealed UCT has been deeply involved in responding to this health crises from a research perspective , providing health care and support, (doctors and students at the frontline), in the education sector , through to innovation in various research projects in terms of direct support to communities and redirecting funding to support vulnerable communities during this crises. Significantly, submissions also revealed that UCT staff and students have increasingly embraced the imperative that SR should underpin our work at UCT. With all the variance in the kind of responses to the pandemic, what we also wanted to showcase were the multiple ways colleagues chose to write up and talk about their work. Such was the impact – and arguably disruption – of the pandemic, that socially responsive scholars in research, teaching and service engagement, have made the choice to reflect on their work and partnerships in new and innovative ways. f UCT defines social responsiveness as 'the production and dissemination of knowledge for public benefit', maybe the shift to putting the work directly into the various publics connected to the university, is something we need to support and sustain in our work going forward.

COVID-19 has underlined the importance of community-university engagement and now is the time to build on what we have learned from the experience of the pandemic.

## Centre for Higher Education Development

#### Introduction

The Centre for Higher Education Development's (CHED) mission is to promote equity of access, effectiveness of teaching and learning, and the enhancement of curricula, with the twin aims of improving student success and ensuring that UCT's graduates are globally competitive, locally relevant, socially responsive and fully representative of South Africa's diverse population. Headed by the Dean of Higher Education Development, CHED has an organisational status similar to that of a faculty.

#### Institutional support role

Some of the more specific CHED aims (relevant to the COVID context) include:

- promote excellence through equity;
- develop the curriculum in partnership with faculties;
- unleash its diverse research-led expertise in collaborative projects that address institutional and national problems in higher education;
- enhance the competence of graduates by ensuring the provision of key skills and abilities.

CHED is inherently an inward-looking unit. In almost all of its work, CHED's main service role and target audience is the university community rather than the external communities that make up the broader UCT community. In this way, CHED supports staff engaging in various forms of teaching and learning, and undertaking research and development work that both strengthens, and aims to improve, the teaching and learning project at UCT. 2020 was no exception with the work of e.g. CILT – the Centre for Innovation on Learning and Teaching – being particularly active and visible in the emergency remote teaching project. Given this, the social responsiveness role and work of colleagues in CHED – work that following UCT's SR definition is aimed at working with 'external, non-academic constituencies – has not historically been seen as a core component of one's role for either PASS or academic staff. However interestingly, SR is visible as part of the Ad Hominem criteria for academics, falling (as in many faculties) in the same category as professional work.

CHED's work and role has not remained static over the years; it has evolved and is increasingly responsive in important ways to the needs of the sector overall. Interim Dean Professor Alan Cliff has highlighted the various ways in which CHED's role has shifted including the fact that the faculty 'has a broad influence in higher education research, academic and professional staff development, student support, curriculum design and renewal, online and blended modes of provision, careers information and support, and educational assessment. We have grown a transversal presence in the institution and have contributed much work in the field of higher education research and project development'.

Given the focus of CHED's work, it is not surprising that there is not plethora of SR-type work happening. Despite this, there is some very inspiring and innovative work to surface. For this report, SR case studies submitted from 3 units in CHED:

- The Numeracy Centre Duncan Mhakure and Muzi Manzini working with schools and teachers to develop capacity in teaching mathematics;
- The Global citizenship (GC) programme, CILT- Programme manager Benita Moolman's work on gender-based violence (GBV) and bringing it into the GC short course programme;
- The Careers Service work around student entrepreneurship and the UCT Plus Leadership award programme.

In line with the rest of the faculty submissions, these cases will be discussed highlighting challenges, opportunities and resilience evident in the work.

#### Challenges

The work of colleagues in the Numeracy Centre has for several years focused on many of the challenges inherent in schooling and, in particular, in teaching mathematics and has been ongoing for some time. It has both a research and a service component and works with schools that are under-resourced and struggling with mathematics. The research work includes improving the teaching of mathematics and helping to support teachers amongst other objectives. The service component of the work is focused on identifying and addressing the contextual challenges in the teaching and learning of mathematics experienced by both teachers and learners in schools located in low socio-economic areas. School-based workshops and co-learning activities between academics, teachers, and students were carried out.

The COVID-19 context made this work impossible as colleagues were not able to reach the schools or even the teachers and, in this way,, the pandemic highlighted the existing stark inequalities in terms learning that exists between communities within Metros in South Africa. For instance, when the lockdown level 3 and 4 were instituted, we had instances were three teachers participating in the project from different schools tested positive for COVID-19 – these instances created an environment that was not conducive for academics, teachers and student to engage productively in research and service work. Therefore, while we cannot report on any direct school-focused work happening during the past year, it is noteworthy to mention the project as the work is even more important than before, given the missed schooling for many of these learners.

#### **Opportunities**

COVD-19 presented itself on many levels as a profoundly complex issue, with far-reaching consequences and impacts. In many ways therefore, opportunities were provided for new approaches to tackling societal issues. One such opportunity is the need to think across and beyond disciplines in both our teaching and research. Both interdisciplinary and transdisciplinary approaches have gained momentum in the current context.

#### Moving beyond the disciplines in teaching, research and service

Benita Moolman came to UCT and assumed the GC programme<sup>4</sup> Manager role in June 2019 from the Human Science Research Council (HSRC). Her focus for many years in both her scholarship as well as her activism, has been gender-based violence (GBV). In her case study, she highlights the interesting intersections of her role as researcher, teacher and public scholar, given the real need and desire for more information on GBV that in particular has accelerated in the COVID-19 and post-COVID-19 context. With her strong focus on social justice, the need to move beyond the disciplines to examine, understand and share knowledge is critical. For Benita, COVID-19 has given visibility and credibility to new paradigms for doing research and activism in the field of GBV.

There are many cases showing how the university responded to many of the challenges brought about by COVID-19 and in particular, Benita believes there was a deeper and more complex understanding of students. The university responded to the needs of students which was important because it showed an understanding of students not only as empty vessels but as citizens and members of communities with multiple ways of knowing themselves.

<sup>&</sup>lt;sup>4</sup> <u>www.globalcitizen.uct.ac.za</u>

This aligned with Benita's own interests and her location as a scholar working within a feminist paradigm: *My interest and commitment to lived experiences (thanks to feminism for providing a natural affinity) and social change, ushers me towards sharing (teaching) and generating knowledge (research) that is purposeful, and intentional, and therefore my interest in trans-disciplinarity has been strengthened.* 

COVID-19 thus created an opportunity to bring conversations about the topic into the GC programme courses. While the programme doesn't offer a specific course on GBV, the enduring social justice thrust in her work opened up the opportunity to talk about GBV in new more intentional ways. In particular, Benita feels that her location in CHED with its focus on higher education development, helps to locate her work and the work of the programme within the larger higher education context.

#### Expanded notions of student leadership

Student leadership at UCT is recognised annually through various student leadership awards. The UCT Careers Service also set up the very innovative <u>UCT Plus</u> programme several years ago so that the wider student body had the opportunity of getting their leadership in various realms recognised and annotated on their transcript as continuing education. The programme has been growing over the years but last year under COVID-19 new opportunities arose to recognise leadership. In partnership with the student-led Surgical Society in the Faculty of Health Sciences, a new category of student leadership was developed that recognised students volunteering on clinical platforms. This reflects that fact that many students from the faculty were involved in many ways to support the frontline health care workers during the pandemic. In addition, students across the campus have been involved through other societies and groups. Overall, on the UCT Plus system, it is anticipated that more than 700 leadership awards will be given via UCT Plus for 2020, an estimated 90% increase from 2019. Linked to this, a new award – the Service Leadership Award - was approved by the VC and the Executive. This will also be made available to student leaders in 2021 given the uncertainties of the pandemic.

#### Online resource development for the HE sector

Also run by the Careers Service, the Entrepreneurship Portfolio offers information about the UCT entrepreneurship ecosystem while also providing support to student entrepreneurs. Student entrepreneurs are encouraged to consider entrepreneurship as a career pathway.

The annual national Entrepreneurship Development in Higher Education (EDHE) Student Entrepreneurship Intervarsity event had to migrate online and was held via Microsoft Teams. Presenting a business online is a novel skill and UCT finalists were directly supported by Careers and its partners within the UCT community to refine their online business pitches. In the process Careers Service created a rubric to assess first-round presentations. The rubric was adopted by other universities participating in the Entrepreneurship Intervarsity.

#### Resilience

Three UCT student entrepreneurs who had been trained and supported by the Careers Service, progressed to the final round of the national entrepreneurship intervarsity. Despite the challenges of presenting their ideas online for the first time, students showed great resilience in their way of handling this. Two students for instance were so impacted by the COVID context in thinking about entrepreneurship, that they changed the focus of their projects. In one case, a student shifted from an idea called Airstudent which works to reduce the cost of students travelling to the same destination, to focus on innovative ideas about solving issues linked to youth unemployment.

In the second case, the student's ideas were initially to bring digital libraries to children in their home language to schools, an important project in its own right. Due to the closure of schools, they rethought their strategy and launched a podcast in 9 official languages. To learn more about these initiatives and others, see the below submissions from various departments and units.

Department/Unit:	Numeracy Centre
Key persons:	Duncan Mhakure and Muzi Manzini
Initiative:	Engaging Students: Researching Mathematics Teaching & Learning and
	Developing Human Capacity

The project proposes and implements a school-based framework that addresses ways in which underresourced schools located in low socio-economic areas, through continuous professional development (CPD) of mathematics teachers, can improve the quality of teaching and learning of mathematics. Whilst there are several continuous professional development (CPD) approaches on improving teaching and learning documented in literature, CPD activities that are school-based and are directed at the student learning level are few. This project assumes that teachers need just-in-time, and job-embedded new instructional practices that are unique to their classroom and school contexts.

The school-based framework has both a research and service components. The research aims of the project are: i) to improve the teaching and learning of mathematics in schools located in low socioeconomic areas – schools located in townships and informal settlements. (ii) to make significant contributions to current debates of CPD activities of teachers within the mathematics education context in South Africa. (iii) to provide sophisticated and rich narratives on how CPD activities of mathematics teachers can be carried out within the contexts of the selected schools. (iv) to identify ways in which both quantitative and qualitative analyses of the students' learning activities can be used to inform the CPD activities of mathematics teachers. (v) to provide capacity for development of future teacher education academics in the discipline of mathematics education through offering postgraduate research positions for MEd and PhD candidates.

As part of the service component of the project, the focus was on identifying and addressing the contextual challenges in the teaching and learning of mathematics experienced by both teachers and learners in schools located in low socio-economic areas. School-based workshops and co-learning activities between academics, teachers, and students were carried out. Also, included in the service component of the project were: (i) developing and designing intervention lessons jointly with teachers, using the framework of the lesson study, in order to address the students' mathematical conceptual learning hurdles. (ii) encouraging learners to enrol for mathematics as a subject, instead of enrolling in Mathematical Literacy thereby not limiting their career choices in higher education. The above research and service activities took place before the COVID-19, that is, before the March 2020 national lockdown.

In the main, the research and service work that I carried out was related to the pre-COVID time. When the lockdown started – level 5, the schools in the townships were not accessible to my team, thus halting completely the research and service activities that we were engaged in.

The uncertainties around the phased re-opening of schools exacerbated the situation. During the lockdown level 4, school started phased re-opening. However, during level 4 lockdown, schools were more concerned about the Grade 12 learners catching up on missed work – this became the focus for teachers and schools. Due to lack of resources, whilst schools in other communities were learning online, schools located in poorer communities could not do so.

In some way, the COVID-19 pandemic highlighted the existing stark inequalities in terms learning that exists between communities within Metros in South Africa. When the lockdown levels 3 and 4 were instituted, we had instances were three teachers participating in the project from different schools tested positive for COVID-19 – these instances created an environment that was not conduce for academics, teachers and student to engage productively in research and service work.

In addition, our contractual obligations with the WCED does not allow us to do research and service work during the fourth term of the school calendar. As an engaged scholar, this paragraph, highlights some of the challenges that I faced, which I had no control of, during service and research work off campus. In all my engagements off campus – in schools, I have done so as an individual with the help of NRF funding. In order to achieve SDG 4 and general transformation in disadvantaged communities, institutions of higher learning must lead the research and service work that seek to address the challenges in these communities. The latter could be achieved through implementing of interventions dedicated at improving the quality of education in these communities, and transformation.

The PI has spoken to our international research partners and collaborators in Norway, Brazil, Israel, and Malawi about research and service work in schools, the one common thing being said is that COVID-19 has had a negative impact on research and service work in schools. The challenge is that the planning of research and service work did not factor in the impact of COVID-19, which should be the case in future.

# Department/Unit:Career ServicesInitiative:Entrepreneurship

The Entrepreneurship Portfolio offers information about the UCT entrepreneurship ecosystem while also providing support to student entrepreneurs. Student entrepreneurs are encouraged to consider entrepreneurship as a career pathway whether this be their first or alternate choice relevant to employment. Entrepreneurship development as an alternative option can help to alleviate poverty, stimulate the economy and drive social change.

Entrepreneurship development initiatives in 2019 were all face-to-face events. During the pandemic, these had to pivot to online platforms to ensure continuity for student entrepreneurs. A zero-rated site gave students easy access to an online entrepreneurship community with resources and support. Student Entrepreneurship Week (SEW) engaged students online with hosted panel discussions, webinars on topics like intellectual property, a Future of Work bootcamp and a design thinking workshop.

The annual national Entrepreneurship Development in Higher Education (EDHE) Student Entrepreneurship Intervarsity event also had to migrate online and was held via Microsoft Teams. Presenting a business online is a novel skill and UCT finalists were directly supported by Careers and its partners within the UCT community to refine their online business pitches. In the process Careers Service created a rubric to assess first-round presentations. The rubric was adopted by other universities participating in the Entrepreneurship Intervarsity.

#### UCT Entrepreneurship Finalists

Three UCT student entrepreneurs progressed to the final round of the EDHE Intervarsity National competition.

- Moeketsi Mashibini was a finalist in the Social Impact business category. His mission is to address the disparities between learners from marginalised communities and those from more affluent areas. His business Pantsula with a Purpose focuses on helping learners prepare for university, including computer skill training, soft skills development, and financial literacy.
- Ndabenhle Ntshangase's whose existing business, Airstudent, competed in the General Business category. Airstudent reduces the costs of travel for students who are travelling to the same destination at the same time. COVID-19 and the subsequent employment crisis has motivated Ndabenhle to make the employment of unemployed youth a business priority.
- Qhawe Bula's business TAQA (in the New Business Ideas category) helps bring digital illustrative libraries to life for children in their home language. According to Qhawe COVID-19 increased the need to digitise exponentially. In the past TAQA would visit schools, but the pandemic created an opportunity to rethink their business strategy. TAQA responded by launching a podcast in nine official languages.

During the pandemic, all student entrepreneurs were supported by Careers Service. Contributions were also made by the communications lecturer at the Engineering Faculty, Student Representative Council, Graduate School of Business: Solutions Space, d-School; Research, Contracts and Innovation office and the Intervarsity funders and mentors.

# Department/Unit:Centre for Innovation in Learning & TeachingKey persons:Dr Benita MoolmanInitiative:Global Citizenship Programme

Gender Based Violence (GBV) is endemic in South Africa, and this year during the pandemic, not much has changed. My doctoral research was in the area of GBV, and my subsequent research has followed this trajectory. There is always a thirst for information and an interest in 'education' or the latest 'research' on GBV. Last year, the rape and murder of Uyinene Mrwetyana as a UCT student, provided a similar interest in GBV. There was a hunger and thirst for information- it is in these contexts that there is an easy slippage in my roles as researcher, teacher, and public scholar.

Currently in my position as Global Citizenship (GC) Programme Manager, BM is in a position (and I have a responsibility) to teach and conduct research on social justice and community engagement – what most people in the university will call social responsiveness. Gender Based Violence is a social justice issue and provides a good example to examine the overlapping areas of teaching, research and social responsiveness. Currently GC does not teach a course on GBV as a stand-alone social justice issue, yet in teaching GC 2: and GC 4, due to the high-profile nature of GBV during the COVID-19 pandemic, the media coverage and public engagement on GBV, GBV as a social justice issue provided teachable moment in areas of social justice, community engagement and active citizenship. A responsive teaching practice had to take the time to discuss and reflect on GBV. In our course design, we have included GBV materials as resources and teaching materials, and in my programme manager role I have developed funding proposals on developing a GBV course.

As a GBV scholar, I was asked to write the section on COVID-19 Pandemic and GBV for the South African Country Report on Gender and COVID-19 pandemic – this is currently an on-going process. I have joined the Human Sciences Research Council (HSRC) coordinating committee as a co-investigator on South Africa's first National Prevalence Survey on Gender Based Violence and Femicide. The national prevalence survey is an objective identified in the GBVF National Strategic Plan.

During the COVID-19 pandemic, I also co-authored a newspaper article on perpetrators of GBV.<sup>5</sup> and participated on two panels on Higher Education and GBV, coordinated through University of the Western Cape (UWC), and then again through the South African Women in Science Initiative (SAWID).

#### What are some of the biggest challenges COVID has made visible in your field?

GBV has conventionally been studied through feminist praxis, hence feminist theory and practice. Feminist praxis is an integration of theory, inter-disciplinary approaches and community activism. The COVID-19 pandemic has revealed the necessity of this approach as a transdisciplinary praxis. During the moments of emergency, it is civil society in communities that respond immediately to the needs of GBV survivors/victims, yet as developed in the GBVF National Strategic Plan, research and science is the stakeholder that contributes to knowledge on the prevalence, patterns and meanings of GBV that will enable further strategies to address and eradicate GBV. GBV as an example provides a lens through which GC work on social justice, community engagement and active citizenship can be brought together to experiment with notions of transdisciplinary praxis, that values student experiences and community knowledge.

#### What are some of your key insights and learning you have gained during this time?

As an academic, I used to think that I don't fit the conventional model of an 'academic'...the model of teaching, supervision and research structured through a narrow discipline. I was often told during interviews for academic positions that my work was 'too interdisciplinary' and I wasn't sure how to understand the meaning behind the words. My interest and commitment to lived experiences (thanks to feminism for providing a natural affinity) and social change, ushers me towards sharing (teaching) and generating knowledge (research) that is purposeful, and intentional, and therefore my interest in transdisciplinarity has been strengthened.

#### Why is it important for universities to offer their resources in the time of COVID?

Universities are public and community resources. It is important to share (rather than offer) resources always, not only during COVID-19. Yet the COVID moment has also, tragically surfaced the lived realities, and persistent economic and social inequalities in communities that the students live and have to constantly navigate. During the COVID-19 pandemic, the university demonstrated that it can swiftly respond, and be more open to learning about student socio-and economic realities. This demonstrated to and for students that UCT is a university that cares and is responsive to (not only to COVID-19 pandemic) but the lingering legacy of apartheid that still shapes socio-economic community realities. The sharing of resources with students guides the university towards a form of community engagement that is responsive to the student as community member and not individual citizen.

<sup>&</sup>lt;sup>5</sup> https://www.iol.co.za/news/opinion/perpetrators-of-gender-based-violence-dont-have-a-specific-personality-type-107f5109-5b64-4f66-bb48-2b65b5e76247

If we acknowledge students as community members, then our commitment to communities is not that of a relationship with an external party that requires additional labour or a separate social responsiveness activity, rather it is foundational for building relationships and developing networks of belonging and relevance for students.

# How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

This time has sharpened my interest in a transdisciplinary praxis not only as an individual educator, researcher and scholar but as an area of curriculum and research development within the university. As GC is located in CHED, the field of higher education development provide an opportunity to explore the possibility of a transdisciplinary programme. This year has taught us that societal needs/pressures require of universities to adapt, integrate and respond to socio-economic circumstances that are less about 'the individual' and more about our communal and collective welfare.

# Department/Unit:Career ServicesInitiative:UCT Plus Programme

UCT Plus is a leadership awards programme that formally recognises students' volunteerism and leadership work on their transcripts. The programme was initiated as a Vice-Chancellor's Strategic Initiative after being piloted in 2015 and approved by UCT Senate in 2016. UCT Plus is managed by the Careers Service in the Centre for Higher Education Development (CHED). To earn an award, the hours of students in eligible roles and activities are tracked, verified and submitted. Four leadership pathways are acknowledged through the programme: Elected Leadership, Leadership through Rolemodelling, Community Service Leadership and Leadership through Active Learning.

A minimum of 35, 45 and 60 hours volunteered in the role is required for bronze, silver and gold awards, respectively. Participants must also complete a structured and assessed reflection of their activity. This helps students make sense of the leadership skills, values and knowledge they developed through the experience.

#### Student Leadership during COVID-19

Over its first four years (2017 - 2019) the programme granted a total of 774 UCT Plus Awards. March to April was traditionally the peak time for onboarding leadership teams. At the initial stages of lockdown in March 2020, the UCT Plus team expected that student leadership activities, mentoring and volunteerism would cease in the face of COVID-19. The programme team carefully reached out to UCT Plus student contacts once Emergency Remote Teaching commenced. The UCT Plus team was mindful to not have students feel pressured to continue with their extra-curricular commitments during the pandemic. The feedback received was surprising: instead of slowing down, the programme saw a huge increase in the number of student leadership teams signing up. Most leadership teams were very active during lockdown and adapted the way they worked by finding innovative ways to achieve their goals. Societies engaged their members through social media platforms, webinars and online skills development. Teams collaborated virtually to raise funds for non-profit organisations. Tutees and mentees were supported via WhatsApp.

UCT Plus was initially conceptualized and managed as an online programme offering. This year the team also created alternative zero-rated online spaces where organisations could submit their hours and contact the programme team.

#### Special COVID-19 Service Leadership Award

At the medical interface health science students reported to the frontline of the pandemic. To acknowledge their invaluable contribution Careers Service collaborated with the Surgical Society to create a special UCT Plus award category for students volunteering on clinical platforms. The COVID-19 Service Leadership Award was approved by the executive and Vice-Chancellor Professor Mamokgethi Phakeng, who acted for Senate. Student volunteers were, and continue to be, active in four essential Western Cape COVID-19 projects. These are the 24-hour COVID-19 hotline at the Tygerberg Disaster Management Centre, the Groote Schuur Hospital COVID-19 testing centre, contact tracing and COVID-19 ward duty. Covid-19 hotline volunteers worked 12-hour shifts managing queries from the public surrounding COVID-19 symptoms, referring patients to the correct level of care based on their presenting symptoms, talking patients through their anxieties and educating callers on COVID-19 and ways to prevent transmission. Some students were involved in dispatching ambulances in severe cases. Student volunteers at the Groote Schuur Hospital COVID-19 testing centre worked five-hour shifts. Clinical year medical students were responsible for screening and swabbing patients (to test for COVID-19). They also provide sick notes and compile patient information. All other medical student volunteers assisted with administrative tasks in the testing centre and transported sample boxes to the laboratory and medication scripts to the pharmacy. The contact tracing team contacted all cases and their close contacts are individually to ascertain risk and prevent further infection. These volunteers also advised those who have tested positive on what to do next.

Fifth- and sixth-year MBChB students could volunteer at the Groote Schuur Hospital COVID-19 ward. Their duties included taking blood samples, putting up drips, being runners for personal protective equipment, oxygen cylinders and other equipment. They also conducted clinical assessments under supervision and updated family members in conjunction with the ward's social work and liaison team. Given the uncertainty of COVID-19's progression and the development of an approved vaccine, the COVID-19 Service Leadership Award is also available to UCT student front-line volunteers into 2021.

#### 2020 Awards

Final numbers were not available at the time this publication went to print, but the programme is on target to grant more than 700 leadership awards for 2020, an estimated 90% increase from 2019.

### Faculty of Commerce

#### Introduction

This section provides examples of work done in the Commerce Faculty responding to the COVID-19 pandemic and in particular themes such as challenges, resilience and opportunity. Faculty members and researchers reported numerous challenges in fulfilling their social responsiveness mandates, but numerous researchers created opportunities by reshaping existing projects, respond to new analytical challenges and contribute to resilience at national and global policy levels. Contributions were in research papers, policy responses, op-eds, news articles and webinars at community, national and international levels. stressing the importance of engagement and harnessing knowledge to address pressing economic and social issues. Faculty successfully reframed research programmes to grapple with new analytical questions, examine and seek solutions to mitigate the impact of a pandemic.

**Challenges**: The pandemic highlighted many pre-existing structural fault lines in South Africa, testing the State's ability to develop and implement policies in a very short time, such as the Covid-19 Social Relief of Distress Grant. The DPRU contributes to meeting this challenge through their cross-disciplinary Covid-19 Country Report, enabling a more comprehensive understanding of the impacts of Covid-19 and assess state policy responses. Several DPRU researchers are involved in the National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS/CRAM), which focus on the impact of social grants on household welfare and the gendered labour market impacts of the lockdown.

**Resilience** is defined as creating and sharing knowledge to benefit a more resilient society. The work by the COVID-19 Economic Ideas group contributed valuable insights into economic policy responses to Covid19, the lockdown and an examination of "fiscal futures" in a webinar series. Similarly, the School of Economics / RUBEN ran online experiments to examine incentivized choices concerning beliefs about the risks of COVID19, choices, attitudes, compliance and morbidity. Their work further examines the way beliefs, and associated behaviours, will interact with evolving risk preferences over the course of the pandemic. Both projects contribute to a deeper understanding of public data reliability, subjective attitudes, behaviour and ways in which policy makers and experts respond to the ongoing crisis.

**Opportunities**: Although research plans were disrupted, new research opportunities opened up. Academics in the School of Economics developed a Spatial Agent-Based COVID-19 Model that considers the roles of behaviour and socio-economic inequality in the transmission of COVID-19. Similarly, the Research Unit on the Economics of Excisable Products (REEP) examined the effects of prohibition on cigarette sales in South Africa, that is currently being considered by the international tobacco control community as part of the "end-game strategy". The outcomes of these research projects show the importance of independent and reliable research for policy development.

Whilst many industries came to a standstill under Covid19, some sectors experienced an upswing. The Department of Information Systems Fairwork project investigates the impact Covid-19 made on workers using location-based platforms such as Uber and SweepSouth. Research shows that these non-standard "gig workers" have been essential to society during lockdown, however, a legal resolution must be found to rescue gig workers from the long-term employment-status limbo that the pandemic has brought into sharp relief. To learn more about these initiatives and others, see the below submissions from various departments and units.

Department/Unit:	School of Economics
Key persons:	Andrew Donaldson
Initiative:	COVID-19 Economic Ideas

Andrew Donaldson participated in the work of a research group, <u>www.covid19economicideas.org</u> that published several papers and supported South Africa's economic policy responses to Covid19 and the lockdown. This included writing a paper titled Monetary management, financial markets and public debt: Responding to Covid19 and the economic standstill. Drawing in part on this work, Andrew participated in the ERSA "fiscal futures" webinar series and several further online workshops and forums. He also worked with Grant Smith, SALDRU assisted in the design and analysis of a "snap survey" of the impact of the lockdown on employment at the V&A Waterfront in April.

#### Department/Unit: School of Economics

Key persons: Andre Hofmeyr, Don Ross, Harold Kincaid, and Brian Monroe

School of Economics faculty and RUBEN Associates Andre Hofmeyr, Don Ross, and Harold Kincaid along with postdoc Brian Monroe have been running an online experiment and survey with UCT students. The experiment involves incentivized choices concerning beliefs about the risks of COVID and choices reflecting risk and time attitudes. The survey includes demographic and mental health variables. Five waves have been conducted with a total of over 500 participants. Parallel experiments are being done in Atlanta, Georgia by Ruben collaborators at the Center for the Economic Analysis of Risk.

RUBEN associates Prof. Don Ross, Prof. Harold Kincaid, and Assoc. prof Andre Hofmeyr have collaborated with the colleagues Prof. Glenn Harrison, Dr Brian Monroe, Dr J. Todd Swarthout and Dr Mark Schneider of the Center for the Economic Analysis of Risk (CEAR) in Atlanta, to run an online experimental study eliciting people's atemporal and intertemporal risk attitudes, time preferences, and subjective beliefs about COVID-19 prevalence and mortality in South Africa and the US.

The rationale for the study is based on a recognition that policies adopted by most countries in 2020 for suppressing transmission of the novel coronavirus and of illness and mortality due to COVID-19 depend on compliance with mandated drastic and costly risk control measures by the general public. While responding to these policies and associated regulations, members of the public have access to widely available continuous updates of prevalence and mortality statistics from a range of sources of varying reliability, rigour, and source reputation. We anticipate that compliance will be conditional on beliefs about the expected future time course and magnitudes of both disease prevalence and morbidity. We further anticipate that these beliefs, and associated behaviours, will interact with evolving atemporal and intertemporal risk preferences over the course of the pandemic.

We conduct online incentivised elicitation of subjective beliefs about future (short-term and mediumterm) COVID-19 prevalence and mortality, incentivised atemporal and intertemporal risk preferences, incentivised time preferences, and survey responses about aspects of the pandemic, with six temporally staged waves of 1,300 respondent volunteers, 700 in Georgia, USA, and 600 in Cape Town, South Africa. Archives of publicly available data at each time point of elicitation will be collected. The data will be used to estimate structural models of the co-evolution of risk preferences, subjective beliefs, surveyed attitudes, and public data sources over the course of the crisis from May to December 2020. This is expected to yield insights into relationships between public data reliability and quality variance, subjective attitudes, and behaviour, during an ongoing crisis of world-changing impact in which many people attend and respond to statistical and epidemiological information previously and typically monitored and reflected on only by experts and policy-makers.

The research team has already run the first five waves of the study, conducted preliminary data analyses, and will be rolling out the sixth wave at the end of October. We plan to target special issues on COVID-19 in *Experimental Economics, Journal of the Economic Science Association*, and *Journal of Economic Behavior & Organization* to publish the results of the study. We also intend to write more accessible, general-interest articles for publications such as The Conversation to present our results to a wider audience. Study and Research Leave will give me the time I need to conduct the (complex) data analyses of our incredibly rich dataset, and start writing up the results, which have the potential to provide important insights on the pandemic and be high impact.

Department/Unit:	School of Economics
Key persons:	Co-Pierre Georg
Initiative:	Spatial Agent-Based COVID-19 Model (SABCOM)
	Covi-id

Co-Pierre Georg is an Associate professor at the School of Economics, where he holds the South African Reserve Bank Research Chair in Financial Stability Studies.

Before the pandemic hit our shores, my practice (research, teaching, and service) was primarily focussed on financial stability issues, financial technology, and data privacy. My research in these areas was developed in close cooperation with the South African Reserve Bank. Recent research has focusses, among other things, on house price developments in Cape Town, regulatory complexity, collaboration in academic networks, and financial contagion. For financial contagion, I was spearheading the development of a suite of computational models that can be used to simulate several scenarios of contagion.

I've always tried to make the fruits of this work available to my students as well as the wider community. I disseminate my knowledge through various (massive open) online courses besides teaching a master course at UCT. In addition to that, my research group has been at work to make our computational modelling suite available as open-source software that is easily accessible to others.

Finally, my work on data privacy has resulted in a spin-off company called Registree, a decentralized student data platform that enables students to take ownership of their personal data and helps them find employment.

Then, the Covid-19 pandemic struck and upended society profoundly. I believe that in a time in which many people are stuck at home and have reduced career opportunities due to the economic impact of COVID-19, the university can offer important relief in two ways, in addition to continuing its education online. The first major contribution that universities can make is rapidly disseminating key information about the pandemic and its social and economic effects to the public. The second contribution that universities can make is by rapidly adapting their research to fit the immediate needs of policy makers, which are acting under massive uncertainty. In my field specifically, two important questions emerged for policy makers. The first was whether we could apply our computation models of financial contagion to the spread of Covid-19.

The second was whether contact tracing, generally accepted as one of the least harmful ways of tackling the pandemic, can be done in a way that respects data privacy. Thus, I started two initiatives to tackle each of these problems.

The first initiative is a Spatial Agent-Based COVID-19 Model (SABCOM). This is a micro-simulation model of Covid-19 for South Africa that considers the roles of behaviour and socio-economic inequality in the transmission of COVID-19. Throughout the development cycle of this model, we've consulted the epidemiologists from the National Institute of Communicable Diseases (NICD). The process ended up in an open-source publically available agent-based model that differentiates itself from the models already used by the NICD in that it is able to take into account the effects of social learning and informal settlements.

The second initiative is Covi-id and it is an initiative to promote privacy preserving contact tracing via QR codes. Together with a group of my master students, we developed a prototype application that provides QR codes with information on a person's Covid-19 status. This initiative has now become part of a larger initiative started by the Safepaths foundation that was spun out of MIT. There it will serve as the technology that underpins the use of QR codes in contact tracing in emerging markets.

#### **Department/Unit:** School of Economics/Research Unit on Excisable Products (REEP)

The Research Unit on the Economics of Excisable Products (REEP) became a UCT-accredited research unit in the School of Economics in 2019. Our work previously fell under the Southern Africa Labour and Development Research Unit. Our research focuses on economic aspects related to a variety of excisable products, specifically tobacco, alcohol, cannabis, and sugar-sweetened beverages. Our aim is to support public health through rigorous and objective research.

We regularly share our research findings with government officials. Our aim is to provide research evidence that can be used to strengthen legislation. Our focus has predominantly been on tobacco.

When the government banned the sale of tobacco products as part of its strategy to curb the spread of the coronavirus, we decided to test the effect of the ban on smokers' behaviour. Government argued that cigarettes were non-essential products, and that smokers were more likely to get seriously ill if they get infected with the virus. The ban was imposed on 25 March 2020 and was lifted on 18 August 2020. South Africa was one of only three countries (the others being India and Botswana) to impose a temporary tobacco sales ban during the lockdown period. It was probably the most controversial measure of the lockdown.

In order to understand how smokers responded to the sales ban, we ran two large online surveys. The first, which ran from 29 April to 11 May 2020, generated more than 12 000 usable responses. We found that about 7.5% of respondents had quit smoking cigarettes. However, of the remaining smokers, more than 90% indicated that they had purchased cigarettes in the informal market during the lockdown. When we conducted the survey, the average price of cigarettes was about 90% higher than prelockdown and was increasing at a rate of about 5% per day.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup>http://www.reep.uct.ac.za/sites/default/files/image\_tool/images/405/Publications/reports/Lockdown%20Survey %20Final.pdf.

The second survey, which was conducted between 4 and 19 June 2020, generated more than 23 000 usable responses. We found that a somewhat larger percentage (about 9%) of respondents had quit smoking. The average price of cigarettes was 250% higher than pre-lockdown. Many continuing smokers had switched to brands that were often regarded as illicit before pre-lockdown. Respondents also indicated that they were more likely to share cigarettes during lockdown than pre-lockdown. This was an important finding given the risk of contracting coronavirus from sharing cigarettes.<sup>7</sup>

Although REEP is pro-health and against smoking, we concluded that the sales ban largely failed. The ban entrenched an already virulent illicit market, estimated at around 30–35% of the total market in 2017. A third of the cigarettes sold in 2017 evaded cigarette excise taxes. The government has been losing billions of Rands in excise taxes. This was largely the result of the SARS management crisis that started in 2014. We estimate that the government lost between R4.5 billion and R5 billion of tobacco excise tax revenue during the sales ban.

We sent the members of the National Coronavirus Command Council our reports, in the hope that they would consider these results in their deliberations. It is unclear whether we were successful in this, as it seems that the sales ban was driven primarily by political, rather than economic issues. South Africa's experiment with the tobacco sales ban was watched with interest by the media. Our research was reported in more than 20 articles, 15 radio shows, and eight television interviews.<sup>8</sup>

The surveys showed that smokers are willing to pay a much higher price for their cigarettes than was previously thought. In our reports and in the media, we argued that, instead of this extra money flowing to the tobacco industry and illicit traders, the government should substantially increase the excise tax, in order to claw back some of the revenue that it lost during the lockdown. Provided it can control the illicit market – a tough ask, given that the illicit market has become more entrenched during the sales ban period – a permanent large increase in the excise tax will discourage cigarette consumption and will have positive public health consequences.

The sales ban was also followed closely by the local and international tobacco control community. Our conclusion that the sales ban has largely failed and should have been lifted earlier, was criticised by some tobacco control community members who were in support of the ban. A positive outcome is that this experience has shown that the unit is independent and is willing to get involved in research that is unpopular in some circles. We are confident that this fierce independence will give us a stronger voice in the policy arena in years to come.

The sales ban in South Africa provided a natural experiment of how smokers behave when they are prohibited from buying cigarettes. A prohibition on cigarette sales is currently being considered by the international tobacco control community as part of the "end-game strategy". In some countries and/or communities with low smoking prevalence, a permanent sales ban may be successful. However, the preconditions (for example, no/little illicit trade, strong enforcement, support to help smokers quit) would need to be in place for such a strategy to be successful. These preconditions were not in place in South Africa. Lessons learned from this experiment have been written up in a research paper, which is under review at Tobacco Control.

<sup>&</sup>lt;sup>7</sup> See http://www.reep.uct.ac.za/sites/default/files/image\_tool/images/405/News/REEP2ndreport.pdf.

<sup>&</sup>lt;sup>8</sup> http://www.reep.uct.ac.za/news/reep-lockdown-study-2-covered-extensively-sa-media.

#### **Department/Unit:** School of Economics/Development Policy Research Unit (DPRU) **Key persons:** Sarah Marriott and Ben Stanwix

The Development Policy Research Unit (DPRU) has been closely involved in academic contributions to policy research, public debate, and Government responses to the Covid-19 pandemic. This is partly due to the nature of the DPRU's work, which is focused on labour market policy issues in South Africa, but in this case has also been driven by the fact that the Director of the DPRU, Professor Haroon Bhorat, is a member of the President's Economic Advisory Council (PEAC) and thus was immediately drawn into high level discussions about the appropriate policy responses to Covid-19. As a result, beginning around the time that a lockdown was first introduced in South Africa, and in the weeks and months that have followed, most of the DPRU's work has turned towards Covid-related projects. This has included specific policy notes that have fed into PEAC discussions, standalone academic papers, involvement in the NIDS/CRAM survey, and various op-ed and news articles in the press.

Initially, the DPRU's research work was focused on how social and labour market policies could be adjusted to better support households, individuals and businesses during the lockdown. This fed into decisions made around the extension of social grants, including the introduction of the COVID-19 Social Relief of Distress Grant (SRD) and the increased scope of the Employment Tax Incentive (ETI) for firms. Some of this research work was included in an overview paper entitled, "The Economics of Covid-19 in South Africa: Early Impressions". An extension of this paper focusing on how social grants reach vulnerable households was recently accepted for publication in the South African Journal of Economics, and the main takeaways from this piece are summarised in a Financial Mail article.

Several DPRU researchers were subsequently involved in the setup of the National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS/CRAM), and research using the data from that survey, which focused on the impact of social grants on household welfare, as well as the gendered labour market impacts of the lockdown. Thus far three papers have been written that are all available here, along with corresponding Daily Maverick articles that are available here and here.

Researchers at the DPRU are building on this work to contribute to a large cross-disciplinary Covid-19 Country Report run by the Department of Planning, Monitoring and Evaluation (DPME) together with the National Research Foundation (NRF). Here the DPRU is coordinating inputs for a chapter on labour markets, social policy and vulnerability as well as providing research inputs from the work outlined above. The aim is to create a comprehensive understanding of the impacts of Covid-19 in South Africa and assess the policy responses to the pandemic thus far.

#### What are some of the biggest challenges COVID-19 has made visible in your field?

The pandemic has highlighted many of the pre-existing structural fault lines in the South African labour market. It has also tested the State's ability to develop and implement policies in a very short amount of time – for example, the introduction of the Covid-19 Social Relief of Distress Grant, which has already reached around 5 million people at the time of writing.

#### What are some of your key insights and learning you have gained during this time?

Collaboration across universities and disciplines, as well as working more closely with several government departments.

#### Why is it important for universities to offer their resources in the time of COVID-19?

In our field, universities have been critical to developing a survey that provides reliable, nationally representative data on households and individuals in order to assess the effects of the lockdown and pandemic in South Africa. This includes a focus on labour market issues, poverty and inequality, and health.

# How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

It will be important to maintain and build on the collaborative relationships established during this period.

Department/Unit:	Department of Information Systems
Initiative:	The Fairwork Research Project

The Fairwork Project aims to highlight unfair labour practices in the gig economy, and to assist workers, consumers and regulators as they hold platforms to account. Platforms have the potential to address South Africa's huge unemployment problem. But, at the same time, some are disrupting existing social and labour structures, and potentially eroding existing jobs. Empirical evidence also increasingly reveals that platform workers experience precarious and unfair conditions; for instance, the pay levels have sometimes become a race to the bottom. Work in the gig economy is often unsafe and insecure. Workers lack protections afforded to regular employees, like sick pay and unemployment benefits.

The Fairwork Research Project decided to investigate the impact Covid-19 made on the workers using location-based platforms (e.g. Uber, SweepSouth). This resulted in commentaries and policy recommendations. The research is done jointly by researchers based at CITANDA, Dept of Information Systems, UCT and researchers from Oxford U, Manchester U and UWC. The full report, "Gig Workers, Platforms and Government During Covid-19 in South Africa" can be found online.

How are the tens of thousands of gig workers in South Africa – those performing tasks for digital platforms like Uber, Uber Eats and SweepSouth – being supported during the Covid-19 crisis? We report here a review of gig economy platform and government responses, supplemented by a small survey of worker experiences. While gig workers are by no means the only vulnerable group in South Africa suffering during the pandemic, their non-standard employment status is proving a particular challenge. Platforms – arguably incorrectly and possibly even illegally – tend to regard their workers as independent contractors rather than employees. Notwithstanding this, a small number of platforms have stepped up during lockdown. For example, we outline ways in which SweepSouth and M4Jam have tried to offset income losses for their workers and cite get Tod's efforts to enable online working for its tradespeople. But the majority of platforms have taken no responsibility to compensate workers for by far their major problem: loss of earnings. Yet our survey suggests a majority of gig workers have lost their jobs entirely, while those able to work during lockdown have, on average, lost four-fifths of their income. As a result, many reported that just getting food to eat was their top priority.

While platforms have long marketed themselves as facilitators of supplementary income streams, all of this exposes the complete dependency of most workers on their platforms as the basis for their livelihood. Given the control they exercise over the welfare and conditions of their workers, South Africa's platforms could and must do more to help, and we outline a series of measures they could be undertaking on issues including reduced commissions, loan deferrals, physical protection, healthcare assistance, sick pay, improved communication, and engagement with workers and their representatives.

The breadth and depth of response by South Africa's government has been recognised worldwide. However, as yet, gig workers have fallen between two stools: able to access neither the support offered to formal employees, nor the support offered to those registered as small businesses. If gig workers are to avoid destitution, government must take further action. Here, again, we outline a series of measures – pushing for gig workers' de facto employee status to be recognised formally, but also ensuring that the safety net of assistance covers gig workers.

The pandemic has highlighted the importance of South Africa's gig workers: delivery services, for example, have been essential to society during lockdown. Covid-19 will not be with us forever but the issues we surface in this report are just an acute manifestation of longer-standing problems. In the longer-term, then, a legal resolution must be found to rescue gig workers from the employment-status limbo that the pandemic has brought into sharp relief.

## Faculty of Engineering and the Built Environment

#### Introduction

The Faculty of Engineering & the Built Environment conducts an abundance of Social Responsiveness activities. Colleagues from the School of Architecture, Planning and Geomatics have worked with the community of Macassar for years, to improve informal structure design, they have designed water platforms in Imizamo Yethu in Hout Bay, and more recently designed a community hub building based on the community's request. A second project located next to the Imizamo Yethu sports fields is a building design that accommodates either an early childhood development centre, a vocational training centre or a healthcare facility.

Members from the Department of Civil Engineering work with government and communities to improve water supply, sanitation, road safety and are investigating the treatment of urine to create vitaliser, reduce mine dust, amongst others. The Department of Construction Economics and Management stepped up during the Covid-19 Pandemic to assist in the understanding of building rules and what that means for the University and beyond.

Associate Professor Pieter Levecque from the Department of Chemical Engineering and alumnae Lubabalo Luyaba (MISA, Civil Engineering graduate) and Wiebke Toussaint (EWB-SA, Mechanical Engineering graduate) worked with the Amathole District Municipality in the Eastern Cape processing and digitally capturing critical water and sanitation infrastructure data, as physical inspections were limited. Furthermore, Thabo Mabuka, a master's students in the same department, is one of the co-founders of the Afrikan Research Initiative (ARI) – a continental non-profit research organisation – dedicated to providing vital epidemiological information about COVID-19 to keep Africans informed about the prevalence and spread of the pandemic.

Professor Amit Mishra from the Department of Electrical Engineering challenged students to come up with ideas to keep Covid-19 at bay, he was glad to see how well developed some of the concepts were. Ideas went as far as planning the modification of breweries production lines to manufacture sanitisers. Furthermore, a smart short wavelength ultraviolet-C (UVC) light system that disinfects surfaces, the air and large rooms – and even face masks, making them reusable – was part of the identified solutions.

Dr Reuben Govender, a Senior Lecturer in the Department of Mechanical Engineering, worked with Professor Sudesh Sivarasu and his team at Biomedical Engineering in developing a low-cost noninvasive mechanical ventilator. Dr Govender helped with mechanical design guidance, and how to manufacture at the prototype level for designs that need to be scaled up to manufacture thousands of units.

The iSondlo Garden Project is a collaboration between Engineers Without Borders UCT and iSondlo-UCT, a student-run initiative that is addressing food insecurity among UCT students and the broader community. The collaboration aims to implement a sustainable and operational garden system on UCT's Middle Campus at the Welgelegen heritage site. To learn more about these initiatives and others, see the below submissions from various departments and units.

Department/Unit:	Cross-departmental collaboration in EBE, the Municipal Infrastructure
	Support Agent (MISA), and Engineers Without Borders (EWB-SA)
Key persons:	Pieter Levecque, Lubablo Luyaba, Wiebke Toussaint
Initiative:	Data for Municipal Infrastructure Assets Initiative (Data4MIA)

COVID-19 may have shrunk vital vacation work opportunities, essential for some degree requirements, but not for a group of 38 University of Cape Town (UCT) engineering students. Working in virtual teams, they built on UCT's input into the Data for Municipal Infrastructure Assets (Data4MIA) initiative. In doing so, they gained vital data analysis and project management skills.

Each of the nine groups tackled an allocated project in municipal infrastructure, the students analysing and compiling data to drive well-informed decision-making around infrastructure priorities and spending at a municipal level. The initiative is a partnership between EBE, the Municipal Infrastructure Support Agent (MISA) and Engineers Without Borders South Africa (EWB-SA). The project drivers are Associate Professor Pieter Levecque from the Department of Chemical Engineering and alumnae Lubabalo Luyaba (MISA, UCT Department of Civil Engineering) and Wiebke Toussaint (EWB-SA, UCT Department of Mechanical Engineering). The project continues and builds on work completed in July 2019 when 19 UCT chemical engineering students spent their winter vacation gathering, processing and digitally capturing critical water and sanitation infrastructure data for the Amathole District Municipality in the Eastern Cape. In December 2019 this was followed by 61 students from the departments of Chemical, Civil and Mechanical engineering, who extended this work. With limited resources and municipal data, the exercise stretched their problem-solving and decision-making skills, which forced them to prioritise their tasks, manage the risks and plan their course of action.

#### Teamwork in a pandemic

Due to COVID-19, the planned follow-on June 2020 vacation work session could not take place. Instead, Associate Professor Levecque and Luyaba ran the project online in December 2020, with the groups communicating and working via virtual interfaces. "The groups were kept small to manage (and pilot) it online, and a total of nine civil and nine chemical engineering students signed up for the project," said Levecque. They connected among themselves and with the MISA team via WhatsApp groups. Levecque and his team did a weekly progress check-in via Zoom/Teams. This worked well, and in January 2021 an additional 20 students were added to the team.

Projects ranged from an assessment of waste-water treatment technologies on waste plant functionality and compliance to a comprehensive evaluation of the appropriateness of municipal Service Delivery and Budget Implementation plans. One group produced a draft masterplan for the Wild Coast Development Corridor. Another considered whether poor municipal asset management was the result of municipalities' shortcomings or the funding models used. The programme ran from 8 December 2020 until the end of February 2021 with cohorts completing their work between January and February 2021.

#### Group presentations and findings

Earlier this month the groups presented their findings to the project's partners and other stakeholders, including Oxfam South Africa, the South African Local Government Association, the Southern African Asset Management Association, the national Department of Cooperative Governance and Traditional Affairs, and the national Department of Water and Sanitation. Levecque and those who attended the virtual presentations were impressed.
"The outstanding work done by the students is contributing to a municipal infrastructure policy shift from just building new, to balancing between new and existing infrastructure," he said.

"This new thinking was evident in the most recent budget speech." Levecque said that the students' work had contributed to the allocation of nearly R750 million for infrastructure asset management planning in the largest conditional infrastructure (Municipal Infrastructure Grant), through a 5% provision.

Municipalities will now also have to submit their asset registers, and this development also builds on this work, he said. "Everyone had a sense that infrastructure asset management is a priority, but the students' work assisted in getting the data to tell the story of how bad a state municipal infrastructure is in."

#### Feedback at the presentations reflected the value of these student projects.

"Amazing presentations ... It makes me happy to see the continuation and growth of this programme from the first time it started in 2019," said one stakeholder. One student commented: "I would like to express my gratitude as a student for this exposure and the meaningful insight it has given my team into the questions surrounding service delivery. A big thanks, especially to our supervisors, who have invested substantial time and resources into our development." "It's really amazing to see our future engineers and UCT EBE put their hands up in such a meaningful way."

The organisers learnt a lot too. "In terms of the working online, it is clear that the students fully acquired this skill, to the point where they give us advice on what works best," Levecque said. In terms of the bigger picture, Luyaba said: "There's growing consensus that government alone cannot move the country forward. It's really amazing to see our future engineers and UCT EBE put their hands up in such a meaningful way."

#### Meaningful vacation experience

The programme creatively solves the problem of a shortage of meaningful vacation work for students, which is a result of a shrinking economy over the past decade, said Levecque. "EWB-SA approached us ... to say they were setting up a project together with the Minister [of Human Settlements, Water and Sanitation] for an infrastructure support agent to analyse data to make data-driven decisions for municipalities. The question to us was: Do you have students who can handle complex problem-solving, data analysis and things like that? And that's exactly what engineering students do these days. So, there was a perfect match." "My hope is that other university engineering faculties can follow UCT's example and partner with government for impact in our country. We desperately need it."

He said that close to 120 students have now participated in this programme. The initiative filled a gap for municipalities, too, because of the shortage of analytical skills at all levels of government. Luyaba said: "The programme proves that NPOs (EWB-SA), institutions of higher learning (UCT) and government can partner at no cost, for the benefit of society. The eventual aim is to develop draft policy position papers on these issues, Levecque added. "We've scaled different projects of bringing community development into the engineering curriculum and [are] excited to see how we can take infrastructure maintenance and the curriculum around that to different universities across the country." "Young people want to build their skills, and young people have value to add."

Toussaint said that the project was a win-win for the students and MISA. "Young people want to build their skills, and young people have value to add.

Young engineers, in particular, are the future of the country. The engineers sitting at universities now are the people who will build the infrastructure for South Africa for the next several decades ... That might not fix the crisis now, but it will prevent ... crises over the next decade. "This programme presents an opportunity where students learn incredibly valuable skills, where they can meet the requirements to pass their degrees, and where MISA could get tangible value that actually helps them do their business." Toussaint said that the students had also been exposed to work in the public sector – a foretaste of what they could expect. "That, for me, really became the sweet spot where we had the possibility of meeting a very urgent need of a training objective, together with a very urgent need as far as infrastructure is concerned, together with the potential to build capacity among young people going into the public sector." Concluding the presentations, Levecque said: "I hope as a takeaway ... we've been able to show that if we all put the skills we have together, this country is in good hands going forward.

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Research Initiative (ARI)

The Afrikan Research Initiative's COVID-19 project has been setup to map and track the spread of the pandemic on the continent.Led by two University of Cape Town (UCT) alumni, the Afrikan Research Initiative (ARI) – a continental non-profit research organisation – is dedicated to providing vital epidemiological information about COVID-19 to keep Africans informed about the prevalence and spread of the pandemic.

ARI cofounder Thabo Mabuka, a chemical engineering graduate from UCT's Faculty of Engineering & the Built Environment, said his organisation brings essential information about issues that affect the continent to its people. He described ARI as an information hub created by Africans for Africa. Since the outbreak of the COVID-19 pandemic, ARI established the COVID-19 Project to map and track the spread of the disease and its burden on the continent. Part of its work is to suggest targeted interventions on how the continent should deal with the virus. "We started ARI to create a platform that veers from the traditional research model where funding influences research projects on the continent, to a more community propelled online research model," he said. "We also wanted to meet the growing need for Afrocentric information and data on pertinent issues that affect our country and the continent. The coronavirus disease is one such example. We want to show that we are proactive in the research space." UCT News caught up with Thabo for more information on ARI's COVID-19 Project and the progress the team has made to date.

#### Niémah Davids (ND): Tell us about ARI's COVID-19 project.

**Thabo Mabuka (TM):** Our main goal is to develop a COVID-19 risk assessment epidemiological model for African countries during and after lockdown. Essentially, this model provides epidemiological information on the virus to help governments on the continent manage the pandemic effectively. We've already developed an SEIR (susceptible, exposed, infectious, recovered) model that focuses on compartmentalising the population into different classes, and we use statistical and clinical fundamentals about the virus to try and predict what things will look like in the future. "We use statistical and clinical fundamentals about the virus to try and predict what things will look like in the future." Thus far, we've developed a model for South Africa, which indicates that if the current national lockdown remains in place, the potential peak of daily COVID-19 cases will be reduced by 72%. We also noticed an overall 47% reduction in the daily number of cases due to better screening, use of personal protective equipment (PPE) and proper hygiene practices. These results show the effectiveness of social distancing, the benefits of PPE and hygiene practice from an epidemiological perspective.

Our model differs from other current existing models because it factors in population and chronic disease demographics in Africa. It also helps to determine parameters based on statistical analysis of COVID-19 case data and not just clinic studies.

ND: Please unpack the risk assessment model in more detail.

TM: Models use information presented in the past to try and predict the future. Therefore, obtaining accurate information is critical. Even with the most accurate information, models are not perfect and need to be perpetually reviewed. To help us develop our COVID-19 risk assessment model, we split our ARI COVID-19 Project team into smaller research teams and developed African datasets for COVID-19. We homed in on population demographics, chronic diseases, COVID-19 movement restrictions, migration patterns and healthcare systems. For chronic diseases, we came up with ARI African Disease Burden 2020 estimates. We then designed our SEIR model, which integrates all these datasets with an epidemiological interpretation

**ND**: Why was there a need to come up with this risk assessment model?

**TM**: Following the outbreak of COVID-19, epidemiological modelling garnered much attention in South Africa. But we noticed that crucial information applicable to the continent was missing. "We developed a special model that considers Africa's population and the chronic diseases our people suffer from." Given the disease burden in Africa, we developed a special model that considers Africa's population and the chronic diseases our people suffer from. Because national lockdowns and travel limitations have come at a great cost to African economies, our model also looks into the potential risk of imported COVID-19 cases, with the prospect that borders will eventually be opened to alleviate the economic pressure.

ND: How will this risk assessment benefit South Africa and the continent at large?

**TM**: Our model provides government and other relevant authorities with critical information, such as predicted daily cases (mild, severe and critical) and potential COVID-19 comorbidities, which will enable them to plan healthcare systems and facilities adequately in order to deal with the effects of the pandemic. Further, our model looks at the impact of national lockdowns and travel restrictions on the rate of infections. This will help quantify the effectiveness of these strategies. It also examines herd immunity, when a country has enough of its population immune to a disease. Quantifying the herd immunity will help determine the number of people that will need to be vaccinated to stop the epidemic. Just this week our partnership with the Center for Disease Dynamics, Economics and Policy in Washington was made official. Part of this collaboration is to share our model and the information we continue to collect.

ND: What are your next steps?

**TM**: We plan to create risk assessment epidemiological models for all African countries while considering each country's population and disease burden. The model's design will remain standard, but we'll adjust parameters according to the country.

Department/Unit:	Cross-departmental collaboration
Key persons:	Thabiso Letlala, Lebohang Mhlambi, and Nosipho Msimango
Initiative:	The Corry Team

When the Faculty of Engineering & the Built Environment's Professor Amit Mishra challenged students to come up with ideas to keep COVID-19 at bay, he was glad to see how well developed some of the concepts were. One example is a portable distillation vessel to make hand sanitiser. With sales of alcohol prohibited, the device puts surpluses to good use. The Corry Team's prototype, which mimics the design of a Grainfather (an all-in-one brewing system), shows how breweries and distilleries can become producers of affordable hand sanitisers at a time of supply shortages. The use of hand sanitiser has been widely recommended to counter the spread of the outbreak, now a pandemic and global public health emergency, according to the World Health Organization (WHO).

Team leader Thabiso Letlala, a chemical engineering student, said South Africa has the fifth highest alcohol consumption rate in the world. The current alcohol ban has resulted in large wine and spirits companies having the capacity to repurpose their facilities for non-potable ethanol production. "We could use this alcohol to supplement the production of affordable hand sanitisers," Letlala said. Corry team leader, Thabiso Letlala, explains how their device would work. Other members of the Corry Team are Lebohang Mhlambi, (BSc, mechanical engineering) and Nosipho Msimango (BSc, chemistry and human anatomy and physiology).

Letlala said the idea is to get supplies into the country's most vulnerable communities, many with no running water for hand washing. Communities that are densely populated are at greater risk as they struggle to practise social distancing. "More than 55% of South Africa's population lives below the national poverty line," he said. "Flattening the curve could prove to be near impossible in many communities that are under resourced and densely populated. Solutions are needed that will delay, if not prevent, the virus from reaching these communities." He said breweries could easily modify their production lines to manufacture sanitisers. Letlala and his team's device, called Corry, is a portable distillation vessel that produces sanitiser with the input of liquor, hydrogen peroxide and glycerol. The ingredients of the sanitiser, and their quantities, are based on recommendations from the WHO. Hydrogen peroxide and glycerol are affordable and can be bought at any pharmacy or cosmetics store, said Letlala.

The following key components are required to make the prototype a stainless-steel body in the form of a Grainfather, an absorber section that uses alcohol-absorbing gel, a vacuum pump made using an aspirator, and the sanitiser ingredients hydrogen peroxide and glycerol, (as per WHO guidelines). "We believe that a solution like this cannot only help us to fight the spread of the virus, but will also allow many South Africans to take part in nation-building by using our device to help those around them." Letlala has also partnered with Enactus UCT, working with Takudzwa Shumbamhini, the society's deputy president. "We'll be entering the Ford Innovation Challenge to obtain seed funding for the project. The project will serve as the society's annual social entrepreneurship project," Letlala said. The Corry Team is looking for support or assistance with this project, either expertise or resources.

Department/Unit:	Chemical Engineering
Key persons:	Rowyn Naidoo
Initiative:	Short Wave-Length Ultraviolet-C (UVC) Light System

In response to Professor Amit Mishra's challenge to engineering students to design devices to help counter COVID-19, University of Cape Town (UCT) electrical engineering student Rowyn Naidoo is close to finalising the design of an affordable, smart shortwavelength ultraviolet-C (UVC) light system that disinfects surfaces, the air and large rooms – and even face masks, making them reusable.

In taking up Mishra's challenge, the UCT senior undergraduate student started by looking at his own campus: the now-empty classrooms, lecture halls and other large spaces, expanding on his long-held interest in science and technology. "I took the route of how we can destroy or inactivate the actual viruses that are around on a large scale, with a view towards getting our campuses and similar spaces functioning normally, but safely," said Naidoo.

UVC light is effective in killing other viruses and micro-organisms in and on our surroundings. It does this by destroying nucleic acids and disrupting their DNA. Here Naidoo cites research by the IES Photobiology Committee in a freely available report on germicidal ultraviolet radiation (IES 2020).

The report has been welcomed as "a counterpoint to information appearing in social media, the popular press, and in shady sales literature". The report states that the SARS-CoV-2 virus (the virus that causes COVID-19) can be rendered non-infectious with the application of UVC radiation because "it damages its RNA sequence, breaking its bonds in a way that stops its ability to replicate. Colloquially, it may be said that UVC radiation 'kills' the virus that causes COVID-19."

"UVC light also works on drug-resistant superbugs, fungi and bacteria, and disinfects in a matter of seconds or minutes – depending on the dosage," Naidoo added. It's also not the same as the UV lights used in places like discos, he explained. UVC is light in the UV part of the spectrum, but at a higher frequency. It's a more obscure part of the spectrum that emits shorter, more energetic wavelengths of light – and it can be dangerous to humans if they're directly exposed to it. While UVC light technology has been around for some time, Naidoo is taking this a step further by designing a simple and affordable smart sanitising system using UVC. The cost-effective design uses layers of aluminium foil and reuses materials for the outer structure. "While there are some commercially available UVC disinfection products, this project will provide automatic, optimised disinfection on a much larger scale, such as entire rooms or lecture venues.

Naidoo's project aims to provide optimised disinfection on a larger scale, such as entire rooms or lecture venues. "I took the approach of how to actually kill the viruses while playing to my strengths as an electrical engineering student. I was aware of the use of UVC for this application and that it's not in common use because of safety factors and cost. I then played around with these limitations towards a solution that is safe, feasible and cost-effective."

Naidoo ran his idea past two of his lecturers and is being mentored by Mishra as he finalises the design. It uses a combination of wall- or ceiling-installed lamps and occupancy detection sensors to determine if the room is vacant. It then automatically and safely switches on the UVC lights to irradiate the air and surfaces for the required amount of time, then automatically switches off for effective, economical disinfection."

His design incorporates other safety precautions such as trip switches in the event someone opens the door to enter the room. This prevents their exposure to the harmful light. "The light system requires no operational labour, which makes it easy to use and reduces the surfaces cleaning staff need to touch." It is emphasised that the efficacy of this light system is limited to areas in direct contact with the light. Naidoo's system will also disinfect the air, reducing the spread of airborne illnesses such as the common cold, influenza and tuberculosis. "This is especially important in confined spaces with many people, such as lecture venues," he noted. In this way, Naidoo envisages fewer disruptions to the academic programme when students and staff get sick. "Practically, the lights can be used to disinfect lecture venues before and after each lecture, with similar applications to cinema theatres, classrooms, labs, toilets, etc."

Another way Naidoo envisages his smart UVC system being used as a defence against COVID-19 is by disinfecting face masks. "This will address the issue of insufficient face masks and is a more sustainable solution to simply producing more and more single-use masks." In collating the various ideas that have come from students in response to his challenge, Mishra said Naidoo's design was one of the most interesting ideas that had come forward. "With some minor help, Rowyn has improved the proposal substantially."

It has put Naidoo's initial early time in lockdown, before the university switched to online teaching, to good use too. But he misses the contact and vibe of campus. "I'm in an off-campus accommodation in Cape Town. It's been difficult to readjust and maintain focus, so I've been reminding myself of current deadlines, making my own deadlines and generally reminding myself of my goals," he said. "I've recently been encouraged by the quote 'Don't count the days, make the days count' by Muhammad Ali, which is particularly relevant these days!"

Department/Unit:	Electrical Engineering
Key persons:	David Oyedukon and Kai Goodall
Initiative:	Tap and Door Opener (TDO) Multi-Tool

At the onset of COVID-19 pandemic, I observed multiple initiatives in the medical and hygiene space towards curbing the spread of the coronavirus. I realized the need for engineers to use our creative minds to contribute towards spread prevention initiatives. Myself and Co-PI (Kai Goodall) met a few times and out of several discussions, the innovation was born. It is a complex Multi-tool that is simple to use in shared public spaces, especially those in communal township areas with shared taps and door handles. It can be used in shared toilets and kitchens in work places, shopping malls, kiosks, ATMs, etc. The TDO Multi-Tool can be used to open a high number of different tap and door handle types, allowing the user to interact with a shared public tap or door in a contactless manner to avoid contact with potentially contaminated surfaces.

Features and design aspects of the tool includes: A Protective Cover which is used to conceal the tool before and after use, in order to reduce accidental contact with the active part which may be contaminated whilst it is not in use. A Protective Barrier between the safe passive handle part of the tool and the potentially infected active part of the tool in order to prevent the user accidentally touching the unsafe active part of the tool. The tool has an ergonomic user handle with a thumb indent for added grip support. The tool is not a replacement for hand sanitizers or other COVID-19 spread prevention guidelines and should be used in conjunction with other preventative measures. The research and development process was fast tracked, thanks to 3D printing technology. My practice is teaching and research, innovation becomes a welcomed extension of both areas. Subsequently, innovation feeds back into my practice, completing the organic loop. The tools are 3D printed with PLA Filament which is 100% biodegradable in order to make the project sustainable. Through financial from the IEEE and equipment support from electrical engineering, we were able to mass produce 2500 units for free distribution to communities in Cape Town.

Prior to COVID-19 pandemic, I have been involved in community based social responsive projects mainly through the IEEE and UCT. These projects involved the application of research to address societal problems such as access to education, electricity and reduce inequality. These goals are all embedded in the SDGs. One of my projects was on providing renewable energy based solution for orphanage in Nyanga. By providing electricity through renewable energy solutions, the budget spent on grid power was diverted to providing for food, shelter and meeting educational needs of the orphans in the home. These are examples of how the work done on our beautiful campus gets translated to implementable solutions that benefits the communities around us. The project was implemented through the EPICS-in-IEEE (Engineering Projects in Community Service-IEEE) programme which involved learners from two high schools.

COVID-19 has taken us to new territories where innovation is paramount. I have learnt that we all have a chance to make a positive change by starting with the community around us.

I love my work at UCT and I am grateful to UCT which that has allowed me to engage in these projects and make a positive impact on society. Going forward, Kia and I have a registered company to take this invention forward. We have identified novel applications which will be reported when the time is right.

# Faculty of Health Sciences

# Introduction

Social responsiveness is our core institutional purpose, alongside teaching and research. As a public institution, UCT has a responsibility to engage with our external communities and make a meaningful contribution towards addressing some of our most pressing societal challenges. Every year we compile a document (Social Responsiveness Report) in which we report and reflect on the contributions that we (UCT) have made towards addressing these societal challenges. This year's (2020) report was unlike any other social responsiveness report that we have put together before: We are currently going through one of the most challenging time because of the outbreak of COVID-19 pandemic. This has brought into sharp focus, our role as a public institution in mitigating the impact of this pandemic.

This report is usually outward looking; us as an institution reporting on activities/services that we did for (or in collaboration with) our external stakeholders. This time around, the report will also include an account of the activities of our dedicated staff and students who put their personal safety and lives on the line to support various departments and entities within our own faculty as part of their social responsiveness engagement. It was also a sobering moment during the collation of this report to reflect on the fact that many staff and students got sick after contracting the COVID-19 virus while doing some of the work mentioned in this report. It is therefore important to pause for a moment in remembrance of the lives of staff, students, colleagues, family members, friends, and relatives that we lost because of this pandemic here at UCT and the broader society (local and global). What follows is an account of many of the activities that members of FHS (staff and students) undertook to contribute to the comprehensive response to the COVID-19 pandemic.

There was an overwhelming response to the call for submissions and the 2020 SR report had contributions from all departments and research entities in FHS. These submissions have been grouped into eight (8) main categories to make the report easy to follow. The report starts with a *prelude* submitted by the Department of Child & Adolescent Psychiatry (DCAD) in which colleagues in this department shared their experiences, as health care workers and members of this faculty, of grappling with ensuring the integrity of service provision despite the nationwide lockdown. I am sure most members of this FHS could relate with some of their experiences. Section 2 focuses on *teaching and learning*, and submissions under this section report on some of the innovations around teaching and learning in response to the pandemic. Sections 3 and 4 deal with *health services delivery* and *health systems support*; details of some of the critical contributions made by members of this faculty to deliver lifesaving services broader support to health services at the hight of the pandemic are shared. Sections 5 and 6 of the report present some of the cutting-edge *biomedical innovations* that were developed in response to the pandemic. The last three sections present; *research* done in response to the pandemic, work that was done in partnership with different communities (*community outreach*) and *public messaging*.

Members of this faculty made an invaluable contribution towards a response to the COVID-19 pandemic. This is a report is snapshot of some of a myriad of the work was done by FHS staff. We are mindful of the fact that we may have left out some of the excellent work that was done during this time because some colleagues may not have been able to meet the tight deadline for submissions. Also, it was not possible to include everything that was submitted into the report due to the specificity of the theme for the 2020 SR report. However, this is a report that members of FHS can be proud of because at its core is a reflection of the humaneness of FHS at its best.

Department/Unit:	Department of Pathology, Division of Anatomical Pathology
Key Persons:	Lynelle Govender, Jane Yeats, Komala Pillay
Initiative:	Pathology Loan Collection Project

The University of Cape Town (UCT) houses a vast collection of pathology teaching specimens. Totalling more than 4000 in number; these specimens are carefully curated, prepared and displayed at the Pathology Learning Centre (PLC). Additionally, PLC specimens are catalogued digitally on our websites, both open education resources.<sup>910</sup> We are currently collaborating with Nelson Mandela University (NMU) to contribute a core collection of pathology teaching specimens (approximately 100 specimens); which the PLC would permanently loan to NMU. NMU is a newly established university in the Eastern Cape, with a Faculty of Health Sciences which is set to open in the near future.

## Why it is important for universities to share resources:

Gross specimens have been used to create numerous learning resources at UCT. These include face-toface tutorials, computer practical exercises and audio tours. As such, we believe that it is be beneficial to collaborate with local emerging universities to share these resources.

#### The context of COVID-19:

The pathology loan collection project was initially designed prior to the COVID-19 pandemic. Since then, In the context of COVID-19, it has arguably become of greater importance. COVID-19 has necessitated remote teaching and learning, both globally and locally. In our experience during COVID-19 emergency remote teaching at UCT, our collection of pathology specimens has proven to be invaluable. Specimens which have been appropriately curated and photographed, were included in our own remote teaching material in lieu of face-to-face teaching sessions. It is our belief, that a pathology loan collection at NMU may be similarly useful to our NMU colleagues. Ultimately, a pathology loan collection can be used as a valuable teaching resource both in the face-to-face setting and as an important remote training resource.

#### Sustainability:

As NMU is a relatively new university, a collection of pathology specimens would be invaluable as they seek to establish their own pathology curriculum. This may be supported by the use of the freely available app *Pathology Lexicon A-Z* (developers: Mr Jurgen Geitner/Dr Jane Yeats). *Pathology Lexicon A-Z* features a glossary of terms, with supporting high-quality images. These terms are used to describe pathology specimens. *Pathology Lexicon A-Z* also features in-app translations of terms to Afrikaans and isiXhosa. The app is available for download from:

- Android version: <u>https://play.google.com/store/apps/details?id=com.jurgengeitner.pathlexi</u>
- iOS version: <u>https://apps.apple.com/us/app/pathology-lexicon-a-z/id1488333058</u>

<sup>&</sup>lt;sup>9</sup> <u>https://digitalpathology.uct.ac.za/</u>

<sup>&</sup>lt;sup>10</sup> <u>http://www.pathologylearningcentre.uct.ac.za/</u>

Additionally, moving forward, we would consider training NMU colleagues so that they may be appropriately skilled to curate and maintain a pathology collection in the long-term. It is our hope that this socially responsive project will be the start of establishing a sustainable and mutually beneficially relationship with our colleagues at NMU.

# Department/Unit:Department of Human Biology, HUB-Transformation & Equity CommitteeInitiative:HUB-TEC Webinar Series

HUB-TEC conducted a departmental survey following the commencement of lockdown. This survey brought to light the many problems HUB staff and students experienced during this time. Examples included, feelings of isolation, feelings of anxiety toward remote learning, data access, communication, the separation of home and work life, feelings of depression and general uncertainty regarding the future. HUB-TEC then initiated a series of talks which were responsive and directed toward wellness of our staff and students during the pandemic. The committee thus invited influential thought leaders to speak to different aspects of. Examples of these talks were centred around human rights during the pandemic, managing finances during the pandemic, mental health, and well-being during the time of COVID-19 and awareness around gender-based violence and wellness. These talks were mainly attended by staff and students, however certain talks included members of other universities as well as members of the public. The aim of these talks was to make staff and students aware of the intersection of COVID-19 and other issues and to think intentionally about the social/home contexts of learning.

# Talk titles:

- Locking down our finances, as we navigate uncertainty during the pandemic.
- Managing anxiety and depression during the pandemic
- Human rights in the time of COVID-19
- Lockdown 2020: Challenges or opportunities?
- The association of sleep and health and disease.
- Gender Based Violence: Reflections since the Onset of COVID19.
- Activism is not influenced by age; we can all make a difference.

## What are some of your key insights and learning you have gained during this time?

That there are other forms of communication other than face to face interaction. These forms of communication may even be more convenient and easier to conduct.

# How might your social responsiveness work undertaken during this period be sustained or inform work going forward:

We may permanently shift to web-based platform of interaction with staff and students as well as conduct all of our meetings in this fashion in future.

Department/Unit:Dept. of Human Biology/Division of Exercise Science and Sports MedicineInitiative:Rugby Research Group

One of the aims of out initiatives during the COVID-19 pandemic has been to provide coaches and players with webinars and develop a health status screening and daily monitoring tool for rugby players returning to training.

# What are some of the biggest challenges COVID-19 has made visible in your field?

Testing and Training of rugby players.

## What are some of your key insights and learning you have gained during this time?

We can engage coaches more readily using online platforms.

# How might your social responsiveness work undertaken during this period be sustained or inform work going forward:

Online platforms may be a cost-effective and time-effective way to offer coach and player education.

# Department/Unit:Division of Family MedicineInitiative:CTICC Hospital of Hope

The year 2020 has shown how society is able to respond to the effects of a global pandemic. Several members of the UCT Faculty Health Sciences' academic staff have played an active role in the Western Cape Government Health's strategy to mitigate the impact of the COVID-19 pandemic on the communities of the Western Cape. During the pandemic, the Cape Metropole acute services' inpatient capacity was extended through the commissioning of designated intermediate care facilities which are housed in re-purposed buildings.

One of these buildings is the Cape Town International Conference Centre (CTICC), which has been converted to a field hospital with 862 beds. The facility's care package is tailored to patients diagnosed with moderate COVID-19 disease in need of inpatient oxygen therapy, whose disease profile is complicated with existing chronic conditions, and patients with a care plan which is predominantly focused on palliative care. The facility has been coined the "Hospital of Hope" which speaks to the vision of providing high-quality, team-based person-centred care. The facility aimed to offer hope by delivering high-quality, efficient inpatient care in response to the needs in the Cape Metropole, while ensuring the safety and positive growth of its staff. The facility was officially opened by the President, Minister of Health and Western Cape Premier on Friday, 5 June 2020. After weeks of preparation, the CTICC facility received its first patients from other acute hospitals on the 8th of June 2020. Between 8 June 2020 and 14 August 2020, 1502 patients were admitted.

This field hospital had to create an organisation culture which ensured the buy-in of a team of health workers with diverse backgrounds. A trusting relationship between management and staff was developed, which ensured a commitment to quality of care. The UCT colleagues are grateful for the support of their line managers and faculty leadership. Colleagues from the Division of Family Medicine (School of Public Health and Family Medicine) joined other academics from the Division of Emergency Medicine and the Primary Health Care Directorate to play active roles in the operational and clinical management teams of the "Hospital of Hope".

These colleagues are:

- Dr Tasleem Ras, Division of Family Medicine
- A/Prof Klaus von Pressentin, Division of Family Medicine
- Dr Rene Krause, Interdisciplinary Palliative Care and Medicine (IPCM), Division of Family Medicine

At the CTICC, Dr Ras and A/Prof Von Pressentin functioned as the clinical managers in the operational management team, which included the line management of the multi-disciplinary clinical team and meeting daily with the clinical team leaders to address operational issues.

During the COVID-19 pandemic, the need for palliative medicine increased dramatically given the surge in referrals, which resulted in Dr Krause responding to this need as part of her team-based response at GSH.

In addition, she provided weekly outreach visits to the CTICC during which she mentored and taught palliative medicine principles at the bedside. Not only did Dr Krause step up to help with the clinical need, but also led several PalPrac activities aimed at providing guidance at provincial and national levels in collaboration with A/Prof Liz Gwyther from our Division.

The Palliative Care Practitioners Association of South Africa (PalPrac) created clinical guidelines on palliative care management for COVID-19 in SA and has been supported by the provincial operational guide for implementation, with provincial training and mentorship by PalPrac. These activities were in line with the World Health Organization (WHO) recommendations that palliative care should be accessible in all institutions that provide care for persons with COVID-19.

# Department/Unit:Division of Family MedicineInitiative:Vanguard CHC

A breastfeeding pamphlet that was designed with 4<sup>th</sup> year Health In Context (HIC) MBChB students based at the Vanguard-site has now been adopted by the Western Cape Government Health's Communications Department, as the official health promotion pamphlet that should be used across the whole province to counsel, educate & encourage moms to breastfeed safely during COVID-19. The pamphlet is now branded with the First Thousand days, Western Cape Department of Health & UCT logos (*see Figure 1 below*). The department is distributing both the paper-based and e-version of the pamphlet throughout the Metro & Rural districts and they will handle the translations.

A/Prof Sedi Namane is the family physician at the Vanguard CHC (and joint staff academic member of the Division of Family Medicine in the School of Public Health & Family Medicine) and wishes to acknowledge the following people:

- Ms Pat Ncamile (the site-facilitator) who supported the whole project.
- The students (Layla Mahomed's group) for understanding the need and 'doing justice' to the assignment and identified local need.
- The Provincial Paediatrics COVID-19 group for their endorsement.
- The Nutrition team of the Western Cape Department of Health for their endorsement
- Dr Grammer (the Director in Southern and Western Sub-structure) & the Vanguard CHC staff for supporting this and other students' projects, in general.
- Sr Sharm Naidoo, Vanguard SLC manager, for logistical support.

Department/Unit:	Division of Family Medicine
Initiative:	Community and PHC Response to the COVID-19 Pandemic

Several of the academic staff and postgraduate students (registrars) affiliated with the Division of Family Medicine (School of Public Health and Family Medicine) in joint-staff and honorary capacities, formed a key part of the Western Cape Government Health's response to the COVID-19 pandemic, often as leaders of the team-based activities and initiatives.

Clinical academic staff led their PHC facilities in responding to the pandemic, including:

- De-escalation of routine services, devolving clinic-based chronic care to community-based services involving community health workers;
- Initiating novel approaches to community-based services, such as delivering chronic medication via Uber taxi drivers;
- Using the community pods system to track COVID-19 contacts in community hotspots;

- Using a telemedicine system team called VECTOR (Virtual Emergency Care Tactical Operation), to identify high-risk diabetic patients diagnosed with COVID-19, for escalation of care and inpatient management;
- Commissioning a dedicated palliative care intermediate care facility for COVID-19 patients at the Lentegeur complex.

These clinical academic staff members include: A/Prof Sedi Namane, Drs Neal David, Elma de Vries, Angela de Sa, Abdul Isaacs, Liesl Visser, Beverley Schweitzer and Jennie Morgan. **Selected references:** 

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48



Department/Unit:	Department of Psychiatry and Mental Health
Key Persons:	Petrus J. de Vries
Initiative:	Various

The COVID-19 pandemic has had a pervasive impact on all clinical, teaching and research activities in the Department of Psychiatry & Mental Health in 2020, and changed the way we worked in profound ways. Despite the challenges this brought to all staff and the communities we serve, COVID-19 also led to many innovations and creative solutions and exemplified the resourcefulness and resilience of the human spirit. Here we outline some of the many socially responsive actions, activities and innovations that emerged during the COVID-19 pandemic across the ten Divisions in the Department of Psychiatry & Mental Health.

## Psychological support to a broad range of healthcare staff:

The psychological impact of COVID-19 has been one of the most striking aspects of the pandemic. As a workforce of mental health workers, staff in the Department of Psychiatry & Mental Health therefore led a wide range of actions to support staff in hospitals and clinics. At Groote Schuur Hospital Prof Jackie Hoare and her team led numerous staff support groups and activities across departments in the hospital; at Red Cross War Memorial Children's Hospital Mr Willem de Jager, Principal Psychologist in the Division of Child & Adolescent Psychiatry, led development of individual and group psychological support to Red Cross Staff; the Lentegeur Clinical Psychology team, under the leadership of Ms Lameze Abrahams, led a similar initiative across all their staff groups, as did Dr Tessa Roos at Valkenberg Hospital.

Medical and nursing staff was provided with containing and supportive spaces to share their anxieties and fears as a result of the COVID-19 pandemic. They were also able to share the traumas they experienced as a result of the severe illness and death they were surrounded by. Staff also had to adopt to having children, partner and other dependents at home, and often had to take on many extra roles as teacher, classmate and carer.

#### Finding ways to support children, families, people with disabilities, and local communities:

The psychological, social and economic impact of national lockdown on children, families and local communities was experienced very directly by staff in the Department of Psychiatry & Mental Health. Lockdown disproportionately affected children, those living with disabilities, and our poorest communities. Staff members in the Department were involved in a number of direct initiatives to support local communities. For example, the Division of Child & Adolescent Psychiatry provided food parcels and blankets to children who required emergency care during lockdown; at Groote Schuur Hospital registrars donated cell phones to inpatients without phones so that they could remain connected with their families during lockdown; the Drakenstein Child Health Study (led by Paediatrics with collaboration from the Division of Psychopharmacology & Biological Psychiatry) provided all study participants with masks, and supplied food vouchers to those in need; the Lentegeur Spring Foundation led a 'Food Drive' that raised over R100,000, and with additional donations of vegetables from another Spring Foundation project, the Lentegeur Market Garden was able to support more than 200 households with food hampers to support over 1,000 people in their local community. The Market Garden also established contact with a number of soup kitchens and all excess produce was made available to provide meals to the many who were struggling.

#### **Collaborating for impact**

It was striking how the COVID-19 pandemic stimulated a range of collaborative efforts to ensure an impact on the well-being of the wide range of communities we serve. Collaborations ranged from local to national and international efforts. At Groote Schuur Hospital, for instance, the Division of Consultation Liaison formalized a partnership with Palliative Medicine to respond to bereavement and patient distress.

The Division of Public Mental Health teamed up with Cape Town Together to distribute a mental health resource leaflet with information on stress management, grant information and mental health referrals; the Perinatal Mental Health Project co-founded 'Messages4Mothers' and created a range of resources for mothers to be distributed via multiple media outlets; 'Chommie the Chatbot' was created on Facebook to support adolescents experiencing mental distress. The Division of Child & Adolescent Psychiatry linked up with the International and South African Associations for Child & Adolescent Psychiatry and Allied Professions (IACAPAP and SA-ACAPAP) to produce 'Tips for Parents and Carers in the time of COVID-19' in an easy-read whatsapp format, translated into six South African languages; the Centre for Autism Research in Africa collaborated with Autism South Africa to lobby for bespoke lockdown accommodations for people with autism and related disabilities. Similarly, the Division of Intellectual Disability Psychiatry worked with the UCT Inclusive Practices Unit and the Western Cape Forum for Intellectual Disabilities to lobby for and implement disability-friendly support, training, practices and legislation during national lockdown.

#### **Research on COVID-19:**

Various divisions in the Department of Psychiatry & Mental Health led or participated in COVID-19 related research. Some academic outputs have been published to date, and many more are likely to emerge in 2021. Prof Dan Stein contributed to clinical guidelines on management of OCD (Obsessive Compulsive Disorder) during the COVID-19 pandemic, and to consensus guidance about problematic internet use during the pandemic, both published in *Comprehensive Psychiatry*. Prof John Joska and colleagues from the Division of Neuropsychiatry published an article in *Aids & Behavior* on the increased risk to the mental health and safety of women living with HIV in South Africa as a result of the COVID-19 pandemic.

Prof Petrus de Vries from the Division of Child & Adolescent Psychiatry co-edited with Dr David Amaral (MIND Institute, USA) a global collection of commentaries in the journal *Autism Research* on the impact of COVID-19 on autism research. In the Division of Public Mental Health the ASSET project shifted its focus to examine the impact of COVID-19 lockdown on the mental health status of perinatal women attending public healthcare clinics in Cape Town; the STRIDE project undertook a survey to determine how long-term care facilities for older people were responding to the pandemic and to lockdown.

#### Going virtual for seminars, workshops and conferences

COVID-19 has driven the whole world towards technology for teaching, training, research and communication. The Department of Psychiatry & Mental Health were no exception. All divisions shifted teaching to remote platforms such as zoom, teams and skype. Apart from local shifts, members of the Department also led and participated in national and international virtual activities. Prof Dan Stein hosted the virtual 2020 conference of the African College of Neuropsychopharmacology (AfCNP) in his role as President of AfCNP; Dr Qhama Cossie, Head of the Division of Adult General Psychiatry at UCT and Valkenberg, was a panellist on an African Global Mental Health Institute on 'COVID-19 and mental health care in resource-constrained settings'; Prof Katherine Sohrsdahl and the Centre for Public Mental Health arranged a webinar in collaboration with the African Mental Health Initiative on 'mental health aspects of the COVID-19 crisis in Africa'; Prof Petrus de Vries (Division of Child & Adolescent Psychiatry) participated in COVD-19 seminars with the Royal College of Psychiatrists (UK), with international non-profit organisations for rare diseases, and co-hosted the virtual National Autism/South African Child & Adolescent Psychiatrist and Allied Professions (SA-ACAPAP) congress in his role as President of SA-ACAPAP; the Departmental Social Responsiveness Committee arranged webinars on COVID-19, including one on the use of telepsychology and telepsychiatry in African settings, led by Ms Nasera Cader-Mokoa (Division of Psychotherapy).

#### **Towards Digital Mental Health**

Apart from the drive towards technology for learning and research, COVID-19 also stimulated our drive towards digital mental health for clinical consultation and intervention. The Division of Psychotherapy led a range of discussions about telepsychology and telepsychiatry to prepare staff for this transition, including a webinar by Ms Nasera Cader-Mokoa, one of the senior clinical psychologists at Lentegeur Hospital. After thoughtful planning, digital consultations and interventions were implemented widely in the department. In the Division of Child & Adolescent Psychiatry, Dr John-Joe Dawson-Squibb led the creation of South African guidelines for psychiatric/psychological telehealth consultations with children, adolescent Psychiatry and Allied Professions). In spite the widespread use of digital tools for mental health in other parts of the world, little has been done in this regard in South Africa and Africa. The COVID-19 pandemic has therefore been a catalyst for this development that we hope will expand widely in the country and continent in the coming years.

#### Empowering communities through the media

Various departmental members contributed to printed media such as Daily Maverick, News24, You and Milady magazine with writings on mental health, wellbeing and self-care in the time of COVID-19. Local radio stations such as KFM, RSG and hospital radio stations used many departmental members for talks on mental health, parenting, or supporting people with disabilities during lockdown. On the Departmental Website a special section was created for COVID-19 resources. Dr John-Joe Dawson-Squibb, Senior Lecturer in the Division of Child & Adolescent Psychiatry collated and curated relevant and freely available resources for staff, patients, families and the broader community.

#### The resilience of clinical services

The impact of COVID-19 on all clinical services was profound and required remarkable resilience and creative thinking from staff. In the Forensic Psychiatry services, a novel system for assessment had to be created at short notice; all services had to set up screening policies; mask-wearing and social distancing posed real challenges for mental health assessments and interventions. In addition, we have experienced staff illness, deaths of colleagues and family members, and loss of 'downtime' and proper breaks to 'recharge batteries'.

In spite these challenges, many positives were seen. Dr Wendy Vogel commented: "We learnt when the DOH wants to do something it can! Tents were erected in weeks. Wards were upgraded and patients transferred across hospitals in days. COVID meant action. Teams worked together, staff collaborated in unthinkable ways and everyone benefited." We acknowledge that many of the consequences of COVID-19 may only appear or become clear in the coming years. In the meantime, we want to acknowledge and celebrate the remarkable contributions from staff across all Divisions in the Department of Psychiatry & Mental Health and leave with the hope that there will be many positive things to incorporate into the now-clichéd 'new normal'.

# Department/Unit:IDMKey Persons:Valerie Mizrahi

In a major collaborative effort convened by the SAMRC and supported by the Solidarity Fund, a team in the IDM played a leading role in a multi-institutional national initiative to provide "surge" diagnostic testing capacity for SARS-CoV-2 during the peak of the COVID-19 epidemic.

On 16 March, just 10 days before President Cyril Ramaphosa declared the national lockdown, **Dr Georgia Schäfer**, a senior lecturer in the Department of Integrative Biomedical Sciences and an Associate Member of the IDM, reached out to the IDM director, **Professor Valerie Mizrahi** and Dr Marvin Hsiao, the lead pathologist in the Division of Medical Virology responsible for SARS-CoV-2 testing in the NHLS Virology lab at Groote Schuur Hospital (GSH) offering to provide her services to assist with the expected increased demand for PCR testing. The approach from **Dr. Schäfer** prompted **Prof. Mizrahi** to ascertain the level of interest and lab capacity for undertaking such an initiative. The response confirmed what she had suspected when first discussing the concept with other research leaders in early February: there was strong desire from scientists within the IDM and Faculty of Health Sciences to help by being prepared to provide surge testing capacity.

Within a short time, teams of staff and student volunteers from the Wellcome Centre for Infectious Diseases Research in Africa (CIDRI-Africa), which includes Schäfer and her group, and the South African Tuberculosis Vaccine Initiative (SATVI) – both based at the IDM – were assembled under the leadership of **Professors Robert Wilkinson** and **Tom Scriba**. Expertly managed by Nicole Bilek (SATVI) and Fatima Abrahams (CIDRI-Africa), they worked closely with Dr Hsiao and other experts in diagnostic pathology on the UCT/NHLS joint staff, whose support and external quality assurance were instrumental in enabling the IDM teams to begin surge SARS-CoV-2 testing in June. With the support of Dr Heleen Vreede from the Division of Chemical Pathology and Dr Simon Mendelsohn from SATVI, a communication platform was set up between UCT and the NHLS to manage the daily arrival of patient samples at the IDM and reporting of the results via the NHLS. The testing protocol established in the IDM achieved a turnaround time of approximately 12 hours and successfully delivered more than 6000 tests during the peak of the epidemic.

The IDM became the first of several academic centres to participate in this national initiative. As administrative lead for the IDM team, **Prof. Mizrahi** acknowledges the many people who worked hard behind the scenes to make this project a success. These include key members of the OHS and biosafety structures in the IDM, Faculty and University who provided regulatory oversight, and Claude Bassuday, the director of Legal Services in the Registrar's Office, who was instrumental in negotiating the funding agreement with the SAMRC.

For **Prof. Wilkinson**, contributing to this initiative even before it was clear that the funds invested by CIDRI-Africa in procuring reagents and kits could be re-couped was a no-brainer. "*The control of any infectious disease is critically dependent on accurate ascertainment, which informs personal and community management. Preparing in March for what was to come, it was self-evident that countries that had adopted intensive testing strategies were faring better than the ill-prepared ones. Given that our laboratories had facilities and highly skilled technical personnel, I sought and obtained the permission of my steering group to commit discretionary research funding to kickstart this diagnostic testing. We are grateful for the close relationship that subsequently developed with the SAMRC and NHLS that has allowed us to sustain this contribution."* 

**Prof. Mizrahi** applauds the volunteers who gave willingly of their time, technical expertise and skill to contribute to this project, which epitomises the values of the IDM – excellence, collaboration and impact – and has demonstrated social responsiveness, at its very best.

Department/Unit:	SATVI
Key Persons:	Mark Hatheril
Initiative:	Various

De-escalation of routine services and rearrangement, repurposing and retraining to manage the peak

SATVI was informed by the Chief Executive of Brewelskloof Hospital on 26 March that the hospital space used by the SATVI research platform was urgently needed for the DoH COVID-19 pandemic response. SATVI was instructed to vacate the hospital premises immediately and stop all research in DoH facilities. SATVI staff packed up and moved out within 24 hours, so that the research ward was available for COVID-19 surge patient admissions. Parts of the clinical trial were made available for DoH staff isolation facilities. The SATVI site in the hospital grounds was vacated from 27 March – 10 July. SATVI clinic-based research remained prohibited in the Breede Valley region until 22 September so as not to impact the rural DoH pandemic response.

#### **Testing lab capacity**

See IDM response for SATVI contribution.

## **Research – including vaccine trials**

SATVI is preparing to enrol participants into two upcoming COVID-19 vaccine trials at the Worcester field site (Novavax, Dr Michele Tameris PI; and ENSEMBLE, Dr Angelique Luabeya PI).

Department/Unit:	DTHC&F
Key Persons:	Linda-Gail Bekker
Initiative:	Various

#### Ensuring our work goes on, but safely

Despite the challenges of the Coronavirus pandemic this year, we have grown stronger as an organisation.

Firstly, we have never stopped our services; recognizing that South Africa has a severe HIV and TB epidemic and recognising the potential for Covid-19 and the national response to draw much-needed attention away from HIV and TB research and services. While it was crucial for us to respond to the pandemic; it was also essential that other health responses did not suffer because of it. Indeed, even in our own services we have seen a dramatic reduction in patients accessing care even for life saving antiretroviral therapy. Before the lockdown viral suppression rates, PrEP uptake and eradication efforts for vertical HIV transmission had stalled. COVID19 lockdown and competing public health attention is very likely to convert a stall into backsliding. It is clear, we are in no position to take our foot off the pedal for HIV, TB and related conditions.

A new risk to the entire organization, the Coronavirus pandemic created challenges for how we safely but effectively continue our various studies whilst also offering opportunities for new work in this area. The sudden onset of the pandemic in Cape Town has meant a very rapid pivot on behalf of all of the teams. Our head office and much of the admin staff are working from home. Sites have quickly been rendered "COVID-19 safe" with new infection control barriers and booths already built and installed. Site-specific working practice guidelines have been developed, with best practices for screening of staff and participants, and stocks of PPE have been procured and guidelines for appropriate use implemented. All sites are now fully operational again. Some sites/projects have incorporated COVID testing into their menu of services. All of this has been done in careful agreement with HSF and HREC.

Another important aspect of our response to the pandemic as an organisation was our responsibility to ensure that the communities in which we work are kept informed of the virus and how to keep themselves safe. This was particularly urgent at the beginning of the pandemic in March, as information and guidelines were being updated regularly. To this end, we held a series of Desmond Tutu Health Foundation (DTHF) community webinars with members of our community advisory boards and civil society groups. The webinars provided a platform for information sharing in the midst of the extraordinarily fast COVID-19 news cycle.

Recruitment during the pandemic has been one of our biggest challenges and has required a lot of "out of the box thinking". We have had to diversify and use alternative recruitment methods, moving to more digital spaces, using new technologies and collaborating with different hospitals. During the initial lockdown, our mobile clinics joined the Department of Health (DoH) to conduct SARS-CoV-2 testing in the Klipfontein/ Mitchells Plain Health District. The DoH directed our two mobiles to densely populated, identified hotspots in the district to conduct testing. DTHF staff were involved in the running of the Groote Schuur testing centre in the initial phase of the pandemic. This involved our our medical officers volunteering to assist with screening and testing and other staff members helping to call out patient results an advice on next steps for those who tested positive.

We also continue to work closely with the testing sites at Groote Schuur Hospital, offering our assistance and expertise and making use of the facilities for recruitment for our COVID-19 studies and trials. Our community engagement teams have also turned to new, virtual ways of staying connected with our communities and participants. They have maximized their use of social media platforms and community WhatsApp groups; becoming a resource for COVID-19 related information and ensuring that our participants were kept up to date.

The research being conducted at our sites addresses every stage of the Coronavirus disease at which we can intervene – from prevention to treatment and vaccinations. In order to accommodate these trials, and limit contact within the hospital buildings as much as possible, the team at Groote Schuur Hospital created a 'COVID venue' had been created outside of the hospital buildings, allowing for outpatient work to be completed with COVID positive participants. The space is also conveniently located next to the testing sites and allows for sampling to be done outside – taking advantage of the area's natural airflow.

#### DTHF's COVID-19 Research- Understanding the disease

One of the ways in which COVID-19 research can be tackled is by trying to understand the virus as much as possible. Several of our studies explore natural immunity - i.e., the possible viral and immune factors that are associated with both good and bad outcomes in people with Coronavirus. These studies are aimed at collecting data that will allow for tailoring future vaccine designs.

The <u>HVTN 405/HPTN 1901</u> study is characterizing SARS-CoV-2-specific immunity in convalescent individuals. The observational cohort study aims to determine the evolution of immune responses in convalescent individuals. <u>CoVPN5001</u> is a prospective study of acute immune responses to SARS-CoV-2 infection, to determine the evolution of immune responses in those recently diagnosed with COVID-19 disease.

Another important factor in understanding the virus is how it is transmitted in crowded environments. The <u>TRACE</u> study aims at understanding and mitigating household transmission of SARs-CoV-2 infection in a low income, high density South African community setting. Data over an 8-month period will be used to determine the R0 for SARS-CoV-2 infection, rate of symptomatic disease, and impact of a community healthcare worker (CHW) administered infection mitigation intervention.

#### DTHF's COVID-19 Research- Enhancing Our Response

In addition to understanding the virus and how it is transmitted; we also have opportunity to discover what the most effective ways of administering health research or services is during a pandemic such as this one. The <u>BUDDY Study</u> is examining the feasibility, acceptability, and preliminary efficacy of a novel remote service delivery model implemented among YPLWH who have initiated ART across three clinics in Cape Town, some of whom will be randomized to receive (or not receive) an SMS support intervention with baseline, months 4 and 8 assessments. In addition, we include a comparator population of HIV-uninfected adolescents to determine the incidence of COVID-19 using antibody testing while exploring compliance with lockdown orders on these two cohorts including specific questions on knowledge, risk perception, mental health, Intimate partner violence (IPV) gender-based violence (GBV), stigma, and multiple structural and social-economic factors in these two populations.

## DTHF's COVID-19 Research- Finding Ways to Mitigate

We are involved in a number of different vaccine trials, including the international SOLIDARITY and <u>ENSEMBLE</u> trials, which are both global collaborations that will be enrolling large numbers of volunteers at research sites around the world. In addition to 2 early and late phase treatment studies looking at the dosing, safety and efficacy of multiple candidate agents for COVID-19; the DTHF is also intensely involved in a number of prevention studies; including the international prevention trial, <u>CROWN Coronation</u>. Originally investigating chloroquine as a prevention tool; the multinational study will now be determining the effectiveness of the Measles, Mumps and Rubella vaccines at preventing symptomatic COVID disease in healthcare workers. An exciting aspect of this trial is that it is largely conducted remotely, with only 1 contact meeting required.

Department/Unit:	VACFA	
Key Persons:	Gregory Hussey	
Initiative:	Stories from the Edge	

**Jo-Ann Passmore,** Division of Medical Virology, Department of Pathology/IDM started an initiative, "Stories from the Edge", which grew out of the WISHing for Wellness (W4W) engagement (Wellcome Trust International Social Engagement Award 2017-2018), a means of engaging with communities about the outcome of the biomedical science observational trial for sexual reproductive health factors associated with HIV risk in young women – the Women's Initiative in Sexual Health (WISH) (EDCTP Strategic Primer grant (SP.2011.41304.038). The engagement opportunity allowed Felicity Hartley, as part of her MPhil, to work closely with a small group of young women in Masiphumelele, trying to understand the barriers to uptake of STI treatment among adolescent women. An aspect of investigation used creative visual methodology, extending the Body mapping technique, and allowed deep reflection and the emergence of embodied knowledge, particularly about love, sex and relationships.

Department/Unit:	CIDRI-Africa
Key Persons:	Robert Wilkinson
Initiative:	Various

CIDRI-Africa members and staff have responded to the COVID-19 pandemic through both service—spanning a wide range of contributions—and research.

## Service response of CIDRI-Africa

- 1. <u>Redeployment of staff to health service:</u> six Centre clinical employees were voluntarily seconded to the public health service.
- <u>Repurposing research laboratories to support COVID-19 diagnostic services:</u> to increase provincial COVID-19 PCR testing capacity, the research laboratories were repurposed under the direction of the Centre laboratory manager to provide testing; R1000 000 from the Centre fund was allocated for testing [*further details provided in the IDM report above*,].
- 3. <u>Serving on institutional task teams</u>: CIDRI-Africa members have served on task teams to gather data and coordinate the institutional response to the pandemic in terms of financial sustainability; define the approach to research conduct during various levels of national lockdown; ensure preparedness of infrastructure and people (researchers and postgraduate students) for return to on-site work; and implement appropriate health and safety measures.
- 4. <u>Data and systems:</u> with links to the Provincial Health Data Centre, CIDRI-Africa supports gathering, processing and reporting of reliable COVID-19 data for the Western Cape to support policy and health service.
- 5. <u>Contact tracing:</u> members have volunteered on Department of Health contact tracing teams.
- 6. <u>Donation</u>: members have donated PPE and laboratory consumables from their own research group stocks to diagnostic and clinical facilities.
- 7. <u>Public engagement and communication:</u> CIDRI-Africa members have responded to the urgent need for knowledge about SARS-CoV2 and COVID-19 through dissemination of information via publication of scholarly articles (*see appendix below*), and public and community engagement.

CIDRI-Africa has an active relationship with civil society through a community engagement stakeholders' forum. This acts as a bridge between researchers and the community. Immediately after lockdown announcement the forum held an education drive incorporating door-to-door and public activities in Khayelitsha, where our principal clinical research site is situated. The forum issued government-approved pamphlets and emphasised the importance of social distancing, hand-washing, and continued engagement with health providers.

The forum has now extended this work through development of the Khayelitsha community-based COVID-19 team, which has distributed masks, sanitisers and food parcels to the community. The forum has also engaged in train-the-trainer activities to empower those working within the community. This collaborative approach ensures reliable information is disseminated to community members by people they trust.

In the future, work within the community will integrate face-to-face meetings with technology-based approaches. Our approach of "meeting people where they are" remains relevant during this time as we continue to value the community's contribution to science and research. Universities are repositories of information and should be an asset to surrounding communities. Although the mass media shares COVID-19 developments, this is often generically structured and not bespoke for specific communities. The use of university resources—in our case research medical officers, other health professionals, and a public engagement specialist—facilitated optimum education within the community context. Within the Khayelitsha community, the most frequently asked questions centred on infection prevention for TB survivors, and medication adherence for people living with HIV and COVID-19 co-infection.

# Department/Unit:Division of Cellular Nutritional and Physiological SciencesKey Persons:Sharon Prince and the Prince LaboratoryInitiative:HUB-CANSA Virtual Shavathon

**Please provide a description of the initiative and how it responds to the COVID-19 context:** The Prince Laboratory annually hosts a Cancer Association of South Africa (CANSA) shavathon to raise awareness around cancer. This year due to the pandemic a virtual shavathon will be hosted in collaboration with the CANSA and the HUB Transformation and Equity Committee (HUB TEC) with the focus on breast cancer awareness because October month is breast cancer month. In addition, it is to encourage interested staff and students to donate money to CANSA *via* either direct bank transfer or SnapScan in exchange for hairspray cans (enough to spray their own hair). The event kicks off with an invited talk by Dr Francois Malherbe whose talk focusses on recent advances in Breast Cancer Management. This is followed by the virtual online Shavathon where all the exciting hairstyles of members of the Department of Human Biology was showcased. Concerns were raised that the COVID-19 pandemic response has overshadowed non-COVID-19 health care problems such as cancer.

Is the initiative related to work that has taken place before COVID-19 and how has the initiative changed in the current context? The initiative was conducted in the year's prior to COVID-19 but will since be conducted virtually to raise awareness around breast cancer and to raise funds for the CANSA organisation.

What are some of the biggest challenges COVID-19 has made visible in your field? That other diseases have been displaced by the focus on COVID-19.

What are some of your key insights and learning you have gained during this time? This year by hosting a virtual event, we can better involve the entire Department which allows colleagues to interact who have not seen each other since before lockdown began. The aim is that the interaction may serve to improve mental wellness among colleagues and build comradery.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: The virtual Shavathon event could become an annual event along with further face to face campaigning in communities to raise awareness and funds for CANSA.

Department/Unit:	Division of Biomedical Engineering/Digital Health Group
Key Persons:	Jill Fortuin, Baheya Najaar
Initiative:	Telemedicine

**Please provide a description of the initiative and how it responds to the COVID-19 context:** TELEMEDICINE has been around for a long time, and during this time the uptake has been minimal. In the context of health, there has been much hesitation about the usage of telemedicine by health professionals, health insurers and patients. The reasons for the lack of uptake include deviation from societal norms, fear of replacing health practitioners, ethical and privacy issues, and lack of reimbursement. As a result of the coronavirus disease 2019 (COVID-19) there has been a need, in fact a force, to redefine how health care is acquired. Telemedicine is in many instances, globally and in South Africa, considered to be a last re-sort to access health care. It has not been used optimally globally and more specifically in South Africa.

The reason for the lack of use includes scarcity of adequate infrastructure (connectivity etc), willingness of health professionals and clients (eg patients) to use telemedicine, and legislation (Health Professions Council of SA). Since the beginning of the lockdown in South Africa, several private-sector telemedicine initiatives such as Hello Doctor, Dr Connect, RecoMed andTruDoc have reported a phenomenal increase in usage. This could be attributed to:

- Health professionals and facilities only treating or attending to emergency medical cases.
- The Health Professions Council of SA amending regulations to incorporate telemedicine while South Africa is in a state of disaster.
- Clients/patients fearing infection and seeking alternate consultation and treatment options.
- Health professionals embracing technology to allow them to continue to serve patients and earn an income.

Whatever the reasons that have prompted the increased usage of telemedicine in recent weeks, it has aided in enabling health care during the COVID-19 pandemic. The questions that lingers is whether the uptake will continue beyond COVID-19, and can the public sector also benefit from such initiatives?

What are some of the biggest challenges COVID-19 has made visible in your field? The increase use of digital health solutions during COVID-19 and the important role of Health Technology Management during COVID-19

What are some of your key insights and learning you have gained during this time? I have learnt that even though HTM and Telemedicine was undervalued, it has distinct place in the health system. It requires champions to advocate for its use during the pandemic and beyond. Teaching in both sectors (i.e HTM and Telemedicine) is an opportunity to disseminate information, aid in uptake and ensure the correct policies are adhered too.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: We, Digital Health Group continue to advocate for the use of digital health solutions to enable health care. Furthermore, COVID-19 has highlighted the importance of having access to digital solutions such as telemedicine during pandemics such as COVID-19.

Department/Unit:	Division of Biomedical Engineering/Medical Devices Lab
Key Persons:	Sudesh Sivarasu, Edmund Wessels, and Catherine Gordon-Grant
Initiative:	OpenAir – UCT's Low-Cost Ventilator

OpenAir is UCT's low cost, simple solution using off-the-shelf products that was entered into the National Ventilator Project (NVP) bid (with CSIR as a manufacturing partner). The team started working on the device before lockdown was implemented in March 2020. We were striving for a design that best fit the South African clinical environment. We developed a custom usability testing protocol for ventilator solution which won the NVP bid. We played an integral role in testing their device and ensuring all use-related errors were mitigated before CSIR went into production of 19 000 units. The purpose of our usability testing is to ensure that the devices are as intuitive and as safe as possible to ensure that there are not any use-related risks in a real-life situation.

**How has the initiative changed in the current context?** Our Medical Devices Lab always thrives to apply Frugal Biodesign techniques when innovating. Low-cost and accessible ventilator solutions have been on the lab's radar for many years but COVID-19 forced the team to come together and come up with a working prototype in a much shorter time frame than usual – to help our country in any way we could.

When our bid to the NVP with OpenAir was unsuccessful, we partnered with CSIR to assist them with their bid. We provided valuable clinical support and conducted important usability tests on their device.

What are some of the biggest challenges COVID-19 has made visible in your field? We have always been aware of the disproportionality between developing countries and developed countries especially when it comes to medical devices – not only acquisition of medical devices but accessibility as well. COVID-19 re-emphasised this inequality. While personal protective equipment and critical devices like ventilators were at a shortage around the globe and because of this, the prices to acquire them skyrocketed, it is still developing countries that suffer the most.

What are some of your key insights and learning you have gained during this time? We have both gained significant experience in dealing with industry giants like CSIR and working closely with doctors in the Department of Anaesthesiology. Learning the importance of pre-clinical testing like usability testing and as biomedical engineers, we bridge the gap between clinicians and engineers so acquiring experience in working closely with doctors benefits us greatly in our future work. It was a privilege to be part of something that ultimately helped to save thousands of lives.

Why is it important for universities to offer their resources in the time of COVID-19? Universities are filled with innovative, young minds – exactly what one needs to overcome a crisis like COVID-19. Infrastructure like UCT's Clinical Skills Centre played an integral role in allowing us to conduct usability testing on CSIR's ventilator solution which eventually led to SAHPRA approval and subsequently 10 000 units have been produced and another 9000 units are beings made. A total of 19,000 ventilators are being made and sent all over the country during this time of crisis.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: The Medical Devices Lab has been recognized as one of the only service providers in South Africa that offers usability testing. In order to receive SAHPRA approval (which one needs to produce and distribute medical devices in the country), one requires acceptable usability testing results, amongst others. The service of usability testing is currently being offered to companies that require it, during this period and going forward out of this period.

Department/Unit:	Division of Biomedical Engineering, Medical Devices Lab
Key Persons:	Sudesh Sivarasu, Tertius de Villiers
Initiative:	Ubuntu Booth and Foot Pulls

#### **Ubuntu Booth**

The Ubuntu Booth stemmed from two primary drivers. Most important are our healthcare workers -When it has been determined that a pexrson should undergo a test for COVID 19, a healthcare worker must come in very close proximity to them and insert a swab into their nose to obtain a sample using a nasopharyngeal swab. This puts the worker in direct contact with a possible virus carrying person which is a great risk. Secondly, a large amount of personal protective equipment (PPE) is used and discarded between each test to avoid cross contamination between those being tested. A healthcare worker must don full PPE including a mask, visor, gloves and an apron, perform the test and then remove the PPE and throw it away which is both a financial cost as well as a contributing factor to environmental damage. The booth solves these problems by providing a complete barrier between the person being tested and the healthcare worker eliminating the risk for the worker of being so close to the possible virus carrier and by being made of rugged enough materials that it can be quickly cleaned between tests, minimizing the use of disposable PPE. The Ubuntu booth is currently homed at the Groote Schuur COVID testing center and is in use. Two more booths have been ordered and constructed for use at the Khayelitsha.



#### **Foot Pulls**

Accessibility in this time of COVID-19 is an often under examined topic. It has been made clear that the virus Sars Cov 2 can maintain viability on surfaces for several hours which is why we have all been warned about touching our faces. If one grabs onto a door handle to pull a door open and then later, inadvertently scratches our chin, we could infect ourselves. The foot pull serves to help to minimize that risk. By simply using one foot to contact the foot pull and pull the door towards oneself, one does not have to touch the door handle at all, allowing for safer movement between areas. Some of these pulls have been installed in the Division of Biomedical Engineering in the Anatomy building as well as in the Institute for Infectious Diseases and Molecular Medicine.



Brief description of your practice (be it research, teaching, service, or innovation) and how your work responds to the COVID-19 context: Medical device development has clear application in a health emergency. The development of testing kits, personal protective equipment, and ventilators and such are directly related to such things.

How has the initiative changed in the current context? Given restrictions in terms of numbers of people in a specific place at a time has made development of products somewhat more difficult – suppliers are unable to deliver as fast as they could in the past and are occasionally unavailable.

What are some of the biggest challenges COVID-19 has made visible in your field? Given that the medical devices sector is bound heavily by regulation, the pandemic has highlighted the need for legislation and regulation to be clear and easily navigable for those attempting to produce solutions.

What are some of your key insights and learning you have gained during this time? The need for contacts and a network is very important when trying to get something done. It is rare that a project can be completed using a single person as a resource and multiple people working together can accomplish a lot. That said, when looking for service providers, it was difficult to get hold of people who could do the kind of work needed and even when that happened, it was important to try and maintain communication and get regular feedback as to how progress was occurring.

Why is it important for universities to offer their resources in the time of COVID-19? Given that Universities are publicly subsidized, it is important that when there is a public crisis, that they step in and do what they can to assist.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: The Ubuntu booth, a barrier which still allows for interactions, can be repurposed and used when dealing with other infectious patients such as those with Tuberculosis or other transmissible respiratory illnesses from which healthcare providers need to be protected.

Department/Unit:	Division of Biomedical Engineering/Medical Devices Lab
Key Persons:	Sudesh Sivarasu, Matthew Trusler
Initiative:	Whatsapp Chatbot

The Whatsapp Chatbot (+27 60 070 2218) was a response to the overwhelming uncertainty that surrounded the return of students to campus during the COVID-19 pandemic. It provides a way for students and staff members to check whether there is an answer to their question and get an instantaneous response. Many staff and student members had very similar questions and so this provides a way to release information in a more accessible manner. It was created with help from both postgraduate and undergraduate student councils.

If your practice is related to work that has taken place before COVID-19, how has it changed in the current context? The support and information offered to students prior to COVID 19 was addressed by UCT administration department in the form of phone calls and emails. In the current pandemic, there is a hurried sense of urgency for information from those looking for it, and the administration department became swamped by the amount of questions and those that were repeated. This is where the addition of readily accessible information makes a difference. To provide this information to those looking for it, a Whatsapp Chatbot was developed.

What are some of the biggest challenges COVID-19 has made visible in your field? There is a lack of communication between many organisations outside of times of crisis as well as internally. The pandemic showed clearly that people were very eager to have certainty and return to normality. There is a clear information gap between the students and UCT's support services. Whether that be for the students that are looking for information or for those that need other support. Neither side was without fault, as the information is available but perhaps not accessible to everyone.

What are some of your key insights and learning you have gained during this time? Communication is vital to the support infrastructure UCT provides. Making information accessible allows it to be disseminated to the students effectively. This means that more of the services can be utilised and students informed.

Why is it important for universities to offer their resources in the time of COVID-19? COVID-19 brought about a need for rapid response, however, there was incredible uncertainty during this time. Many authorities were required to lead their societies on the advice they were given. Universities can conduct high quality research with their rich diversity of technology. This allows insight into problems that might not be inquired into by other industries. The universities can then provide understanding and researched backing to many decisions made by authorities.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: The project is easily editable and can be changed should the needs of the chatbot change. The information and frequently asked questions can be updated as time progresses and different challenges arise. The system is designed for longevity and ease of use. Given that it is used by students and the statistics show that it is helping convey information easily, it should be continued indefinitely. This platform has now been used for other information related to the faculty. The platform also offers opportunity to turn this into an extensive information sharing tool at the fingertip of the students.

Department/Unit:	Division of Biomedical Engineering/Medical Devices Lab
Key Persons:	Sudesh Sivarasu, Lara Timm
Initiative:	UCT Hearo

The innovation is known as the UCT Hearo. This is UCT's ear saver solution.

The requirement to wear a face mask for many hours of the day, as brought about the COVID-19 pandemic, has resulted in an increase in the number of mark-wearing side effects. These include skin irritation, acne, lesions and general pain and discomfort. In addition, wearing of an uncomfortable or ill-fitting mask result in the wearer touching the mask throughout the day, greatly increasing the chances of self-contamination.

The severity of the problem is evinced by the number of "Ear Saver" solutions that have arisen in a few short months. After trying out many solutions and feeling like they did not truly solve the problem, we designed our own, the UCT Hearo.

The UCT Hearo is designed to alleviate ear discomfort and prevent the need to touch your face mask throughout the day. The Hearo ensures your mask sits securely and comfortably over the nose and mouth. This is achieved by using the crown of your head to anchor the Hearo and in turn keep your face mask where it should be. Using the Hearo to anchor your mask rather than your ears has the added benefit of alleviating all the pain and discomfort associated with mask use. The Hearo is lightweight, flexible and features several notches; meaning that it can be used for any mask and any head size. The Hearo is our solution to assisting frontline workers and the public experience less discomfort and lower the chance of self-contamination. The UCT Hearo is the solution to all-day face mask comfort.

**Brief description of your practice (be it research, teaching, service or innovation) and how your work responds to the COVID-19 context:** Medical device design involves identifying a compelling need in the medical related fields and innovating on how best to solve those problems. The work responds to the COVID-19 context by changing the types of products we are designing. The COVID-19 pandemic resulted in us steering our focus towards devices that mattered most for this type of disease – namely PPE, medical apparatus such as ventilators, and secondary devices to prevent further spread of the virus.

What are some of the biggest challenges COVID-19 has made visible in your field? COVID-19 has shown us what it is like to develop solutions to urgent problems with limited resources in a short time frame. The restrictions imposed by the national lockdown often made it difficult to source components we needed to get prototyping and making.

What are some of your key insights and learning you have gained during this time? The power of working as part of a team is invaluable. Without the constant support and guidance of the colleges and peers in our team we would not have been able to define and create our solutions nearly as effectively as we have managed to so far.

Why is it important for universities to offer their resources in the time of COVID-19? Universities' most valuable resources are the individuals who work and study there. By offering up these individuals in the innovation and solution space, even the most difficult of challenges can be overcome.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: The rapid design and innovation required by the solutions developed for COVID-19 is something that can be taken forward into future work. We were forced to focus on only the most important aspects of each solution and as a result came out with solutions quickly and effectively, without frills or embellishment.

Department/Unit:	Division of Biomedical Engineering/Medical Devices Lab
Key Persons:	Sudesh Sivarasu,
Initiative:	UCT ViZAR

UCT ViZAR is a comfortable, disposable face shield that has followed a user centric design approach to meet all the needs of those to be protected. The soft profiled foam brow allows for the visor to sit against the forehead while not irritating the skin. This also allows for a space between the shield and face, reducing the chance of fogging on the visor.

Coupled with the soft fabric elastic backing, the visor fits many head shapes and hairstyles. The UCT ViZAR has been designed for longer period use to maintain the much-needed safety and comfort of the patient.



Is the initiative related to work that has taken place before COVID-19, how has the initiative changed in the current context? There are and have been face shields available. However, these face shields have long been available primarily to the health sector. It was found that during the pandemic there were many more fields and industries that needed respiratory droplet protection. For example, a donation of the ViZARs were made to a local school for the deaf. Many of the students at this school learnt from their teachers by reading their lips, however, with the implementation of face masks, this was no longer possible. With the replacement of the face shields, learning could once again continue.

What are some of the biggest challenges COVID-19 has made visible in your field? There is a lack of communication between many organisations outside of times of crisis. The pandemic showed clearly that people were very eager to share ideas and collaborate on many projects. There is a gap between industry and academia, which led to many issues. Neither side was without fault, and there was a large amount of work to be done to get both parties working towards a common goal.

What are some of your key insights and learning you have gained during this time? A rapid response to challenges can be helpful, however, without the correct planning and project management, many of these responses will fall short of making a difference. There are many members of the community who are incredibly willing to help. In the case of personal protective equipment, the 3D printing community jumped at the challenge of providing face shields. However, without proper planning and task management, these devices were often unusable and did not make any impact. This fault lay with the lack of guidelines readily available to those wanting to help, and a lack of communication with those who needed the help most.

Why is it important for universities to offer their resources in the time of COVID-19? COVID-19 brought about a need for rapid response, however, there was incredible uncertainty during this time. Many authorities were required to lead their societies on the advice they were given. Universities can conduct high quality research with their rich diversity of technology. This allows insight into problems that might not be inquired into by other industries. The universities can then provide understanding and researched backing to many decisions made by authorities.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: The project was undertaken with the local help of Salty Print in Salt River. A collaborative effort between the university and the company meant that they could produce the ViZARs with little help.

This means that in the future, these devices could be made to order and distributed effectively. The Royal Academy of Engineering was also involved in some parts of the design process and there was a sharing of experiences and realisations. This partnership hopefully realizes the importance of collaboration between industry and academia, which should be pursued by the academy.

Department/Unit:	Department of Paediatrics and Child Health
Key Persons:	Michael Levin, Roopam Dey, Leanne Haworth, Kerstin Hall, Lara Tim, and
	Ashraf Vahed
Initiative:	Afri-Spacer

Current commercial nebulisers were considered as a standard form of treatment for COVID-19 patients experiencing respiratory challenges/difficulties. However, the latest asthma protocol makes use of metered dosage inhalers as well as spacers for asthmatic patients and wheezers, as opposed to nebulisers. The reason for this shift was to avoid the spread of respiratory pathogens, such as COVID-19, as a result of using aerosol generating procedures including nebulisers. Each patient would be supplied with their own MDI and spacer. Utilising a metered dosage inhaler and spacer combination is considered an effective treatment option, unless the attack is life-threatening. Moreover, current spacers are very expensive which makes them not an ideal patient specific solution. The bottle spacers that were developed during this joint endeavor will provide patients struggling with a breathing difficulty, a personal reusable spacer device developed in a cost-effective way.

The spacers were manufactured and supplied by Polyoak ® Packaging, South Africa which were then mechanically cut and supplied to various healthcare facilities across Cape Town by the team.

Is the initiative related to work that has taken place before COVID-19 and how has the initiative changed in the current context? Yes, pre-COVID-19 the Afri-Spacer was used only for asthma patients, whereas now the device has been made available for COVID-19 patients experiencing respiratory difficulties. This was performed by redesigning and scaling up the production of Afri-Spacer.

What are some of the biggest challenges COVID-19 has made visible in your field? COVID-19 virus spreads as respiratory air droplet and the latest asthma protocol requires commercial nebulisers to be replaced by spacers for asthmatic patients using metered dosage inhalers. The current challenge is that the spacers available in the market is expensive and not available for all patients. Therefore, there was a need to develop cheap and easy to manufacture spacers that can be made available for the patient population at the time of need.

What are some of your key insights and learning you have gained during this time? The main learning for the team was that during the time of need it is possible to re-strategize the design of an available product in order to make it available as an innovative solution for the problem in hand.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: The plan, going forward, is to make the healthcare facilities equipped with the hardware tools to assemble the Afri-Spacer and provide it to the patient. This will make the supply chain more efficient and sustainable in the future.

Department/Unit:	Division of Cellular, Nutritional and Physiological Sciences
Key Persons:	Charles Harris, Desiree Bowers, and Tyrone de Wet
Initiative:	HUB COVID-19 Health and Safety

Human Biology (HUB) Health and Safety (H&S) team headed by Mr Charles Harris and Mrs Desiree Bowers has worked tirelessly during the different levels of the COVID-19 lockdown to ensure that the Anatomy Building was safe and remained safe for the return of staff and postgraduate students which allowed teaching and research to resume. Mr Harris and Mrs Bowers together with Mr de Wet provided COVID-19 mitigation workshops to HUB H&S representatives who then assisted with similar training for returning staff and students. Mrs Bowers compiled the COVID-19 "Return to Campus" SOP, Mr Harris expedited the installation of aluminium windows in relevant areas in the Anatomy Building to ensure the circulation of fresh air, and Mr de Wet installed approximately 100 hands-free foot pulls (designed and manufactured within HUB – see example below) on several high-traffic doors in HUB and throughout the Faculty of Health Sciences (FHS).

Mrs Bowers prepared WHO formulated hand sanitizer which she supplied to HUB staff, security staff, procurement staff as well as laboratories in the FHS. She subsequently assisted with sourcing bulk volumes of sanitizer and foot-operated sanitizing stations for distribution throughout the FHS campus. Mr Harris undertook the upgrading of the HUB Server Rooms electrical power supply and placing it on emergency generated backup supply because of constant load shedding. This enabled wireless communication to continue during scheduled power cuts. Mr Harris and Mrs Bowers spent an inordinate amount of time completing the various steps required to allow the safe, phased return of staff and students to FHS buildings. One of the key steps was the submission of a Building Workplace Plan for all areas (more than 15) in the Anatomy building which involved completing and submitting COVID-19 risk assessments for each area. The plan submitted by Mrs Bowers was used as a template for other departments in the FHS and the Anatomy building was the first FHS building to be successfully audited for COVID-19 compliance and the audit report was used a template for the rest of the FHS buildings. Finally, the building was one of the first to be approved for the safe return of staff and students.

The HUB H&S teams' efforts have been exemplary, in that they have provided a safe environment for returning staff and students in the COVID-19 pandemic, thus allowing teaching and research to resume.

What are some of the biggest challenges COVID-19 has made visible in your field? University leadership and guidance in terms of a well -structured plan for how and when the staff and students would return to campus was lacking and very slow. Also, very little standardised guidance was provided ito what specific H&S measures to implement. Provision of SOPs, resources and PPE from the University was also very delayed.

What are some of your key insights and learning you have gained during this time? Staff and students in the department were very willing to embrace the all the necessary H&S measures that were implemented, and students appeared to adapt very well to the limitations of accessing equipment.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: All HUB H&S reps can maintain the increased awareness of health and safety and communicate it to the staff and students in their individual Divisions.

Department/Unit:	Department of Integrative Biomedical Sciences
Initiative:	Various

In line with the intention of the University Social Responsiveness Committee (UCSR) to compile a 'COVID-19 themed' report, we have focused most of our reports on COVID-related activities carried out by members of the Department of Integrative Biomedical Sciences.

#### **COVID-19 related Service**

Due to the surge in SARS-CoV2 diagnostic testing during the COVID-19 pandemic, Dr Georgia Schafer and her postdoctoral fellow Dr Melissa Blumenthal (Division of Medical Biochemistry and Structural Biology) quickly became involved in a collaboration with CIDRI-Africa and SATVI to set up an in-house testing platform to support the NHLS's testing capacity.

The NHLS supplied nasal swabs samples on a daily basis from May to July and more than 5000 tests were carried out. Viral RNA was isolated from the patients' samples and this was followed by a 1-step reverse transcription/amplification for SARS-CoV2 specific genes. Test results were reported back to the NHLS via a secure SFTP server connection.

From our Division of Computational Biology (CBIO), Richard Osei-Yeboah joined the contact tracing teams and assisted the Dept of Health with contact tracing.

#### **COVID-19 related Innovation**

Professor Jonathan Blackburn's research group (Division of Chemical and Systems Biology) has produced native SARS-CoV-2 N and S protein microarrays to quantify and localise antibody responses in more than 300 COVID-19 patients and controls, obtaining clinical sensitivity and specificity of 100% for confirmed seropositive samples. In addition, the Blackburn group has performed urinary proteomic analysis in COVID-19 patients in order to identify prognostic markers and distinct sub-groups of disease

#### **COVID-19 related Research**

A/Prof Nicki Tiffin, CBIO, has contributed to building the geocoding pipelines that were used by Provincial Health Data Centre (WCGH) for COVID-19 hotspot mapping in the Province, She has been leading an epidemiological analysis team that has built an automatically updating epidemiological report for the department and, from IBMS, Richard Osei-Yeboah, Tsaone Tamuhla and Jon Ambler volunteered to assist with this and put a lot of work into building the R markdown scripts and designing the analysis. They are all co-authors on one of the publications coming out of the epidemiological analyses, recognised for scripting and analysis input: *Boulle et al. Risk factors for COVID-19 death in a population cohort study from the Western Cape Province, South Africa. Clin Infect Dis. 2020 Aug 29;ciaa1198. doi: 10.1093/cid/ciaa1198.* 

A/Prof Nicki Tiffin, as co-PI with A/Prof Michael Pepper from UP, was asked by the MRC-SA to bring together a National coalition of COVID-19 human genome research groups looking at host genetic determinants of COVID-19 severity in South Africa. This coalition has been set up with groups across the country joining, and they are currently seeking funding on behalf of the group.

With this group, they have developed an agreed core protocol for both adult and paediatric studies, defining standardised informed consent based on her recent publication and A/Prof Nicki Tiffin has been working with members of H3ABioNet to design a harmonised data standard for COVID-19. This has been adopted by the MRC group, and she has also involved Lyndon Zass and Katherine Johnston from H3ABioNet to build a similar data standard for paediatric studies of MIS-C that will be undertaken under the National COVID-19 Coalition.

A/Prof Tiffin will be giving a session at the upcoming HNU/DAAD/UWC Health Data Analytics Winter School 2020 on how health informatics has been used by the PHDC during the COVID-19 pandemic.

A/Prof Darren Martin, CBIO has modified a computer program (called recombination detection program or RDP) so that it can analyse patterns of genetic recombination in >100K full-length SARS-CoV2 genomes. At the moment there is not enough genetic diversity to detect recombination in the deposited genomes but before too long the virus will have diversified enough to enable the detection of large recombination events between Cov2 isolates (and in so doing enable us to begin estimating frequencies of mixed infections among other things). By next year the virus will potentially have started recombining with other human coronaviruses wherever mixed infections of these occur. The version of RDP that he is working on will be the only computer program capable of detecting these events at scale. A major part of assessing how the virus responds to vaccines is going to involve the detection of vaccine evasion recombination events (recombinational transfers of spike protein genes is how coronaviruses overcome adaptive host immunity in all other studied coronaviruses).

A/Prof Darren Martin is part of the Virus Evolution and Molecular Epidemiology (VEME) group which consists of the people who have developed and validated the software that is currently being used to analyse SARS-CoV2 molecular evolution. As with the other VEME members he has been doing (1) "normal" anonymous technical peer reviews for journals of SARS-CoV2 papers that have used his program (i.e. about ~50% or more of the tsunami coronavirus molecular evolution papers that have been submitted for publication in the last few months), and (2) unsolicited non-anonymous peer reviews of SARS-CoV2 papers in biorxiv whenever these have used his software.

Postgraduate Students in CBIO are using sophisticated models of nucleotide sequence evolution to understand the processes giving rise to mutations in coronaviruses and how arising mutations impact the adaptation of these viruses to their hosts. The computational biology division is additionally modifying the virus genomic sequence analysis software that it produces so that it can meaningfully handle the hundreds of thousands of full-length SARS-CoV2 sequences that are being determined.

#### Pathology & the IDM (Virology Submission)

**Making a vaccine against COVID-19.** Following the emergence of SARS-CoV-2, the Division of Medical Virology, Department of Pathology/IDM division rapidly responded to the global crisis by initiating a project to develop a COVID-19 vaccine. The team led by **Professor Anna-Lise Williamson**, in collaboration with the Biopharming Research Unit, utilized their experience in HIV and veterinary vaccine development to make vaccines based on different vector and subunit platforms.

Working throughout lockdown, a dedicated vaccine development team made considerable progress, with a provisional patent filed. Furthermore, a review article was published in Nature Reviews Microbiology which provides an African perspective on the global pandemic, and a preprint article in BioRxiv described the first published account of a plant-produced SARS-CoV-2 spike glycoprotein. Funding obtained by Professor Anna-Lise Williamson to purchase hamster cages will enable the group to establish a challenge model to test the candidate vaccines. Mouse immunogenicity experiments of the most promising vaccine candidates are planned to select vaccines for further testing in hamsters.

The project team included Emmanuel Margolin, Warren de Moore, Fezokuhle Khumalo, Matt Verbeek, Niki Douglass and Ros Chapman. Professor Anna-Lise Williamson and Prof Ed Rybicki were the senior academics on the project.

**Durability of immune responses to SARS-CoV-2.** A team led by **A/Professor Burgers**, Division of Medical Virology, Department of Pathology/IDM, are interested in establishing how long immune memory lasts in COVID-19 patients, and whether cross-reactive immunity in patients who have been exposed to other related coronaviruses, which typically cause the common cold, protects patients from developing severe forms of COVID-19. To answer the first question, the Division's viral immunologists established an ELISA as a research tool for measuring antibody responses to SARS-CoV-2. The team, led by A/Prof Wendy Burgers in collaboration with scientists from the NHLS and a local plant biotechnology company, showed that recombinant SARS-CoV-2 proteins produced in plants enabled measurement of SARS-CoV-2 humoral responses in infected individuals, detecting 100% of samples identified as having antibodies by a validated, high sensitivity commercial ELISA (preprint available at) <a href="https://www.medrxiv.org/content/10.1101/2020.08.04.20167940v1">https://www.medrxiv.org/content/10.1101/2020.08.04.20167940v1</a>).

Following an in-depth study which spanned a period of 12 weeks (May to July), the findings were presented in a research paper by lead author Dr Stephen Makatsa, a postdoctoral fellow in the Division of Medical Virology. This group has been funded by the SA-MRC and the Wellcome Trust-funded Centre for Infectious Diseases Research in Africa (CIDRI-Africa) to examine how long immune memory (humoral and cellular immunity) lasts after infection, by following a cohort of healthcare workers for the next 2 years, in collaboration with the Dept of Medicine.

**Rapid response to the COVID-19 testing needs of the country.** Testing for SARS-CoV-2 is critical to enable effective treatment of infected individuals, and for protection of healthcare workers. Furthermore, it is needed to strengthen our understanding and response to the pandemic. Testing, and shortage thereof, was one of the most contested areas globally. South Africa, much like the rest of the world, had major logistical challenges in securing tests. Rising to the challenge, **the clinical virology team, Division of Medical Virology, National Health Laboratory Services/Groote Schuur Hospital**, has conducted more than 100,000 SARS-CoV-2 PCR to date. From a test capacity of only 20-30 tests per day pre-pandemic capacity, they expanded to being able to test over 1,500 tests per day.

The key innovation, critical to the laboratory's scale up, was spearheaded by Dr Ruan Marais, who developed and implemented an extraction free PCR approach, with only minor loss in sensitivity. The division also worked with colleagues both within IDM and outside the university, to establish several surge testing laboratory to further strengthen the testing capacity across Western Cape. Furthermore, under the leadership A/Prof Diana Hardie, the division has assisted the country in accessing and registering new diagnostic modalities, including assay validation studies ranging from nucleic acid testing, serology and rapid antigen testing.

**Contributing to the public health response to control the pandemic.** The pathologists within the division **Clinical Virology team**, Division of Medical Virology, National Health Laboratory Services/Groote Schuur Hospital were integral part of provincial testing and surveillance policy/guidelines development, working closely with public health and infectious disease specialists. Various members of division staff regularly engaged with media to assist with topical issues around COVID-19 with educating the general public around issues related to the pandemic as one of the key priorities.

A key discovery was the high seroprevalence in public sector patients in the Western Cape. This study, led by Dr Marvin Hsiao, in collaboration with colleagues from provincial department health and Stellenbosch University, shed light on the disease burden in the province and was instrumental in our understanding of outbreak trajectory.

The division of medical Virology, Department of Pathology/IDM, is a founding member of the **Network for Genomic Surveillance in South Africa**. This network of laboratories, scientists and academic institutions that have joined forces to ensure the public health responses to COVID-19 in South Africa have access to the best possible scientific data. The network was launched in June 2020 with five laboratories of the National Health Laboratory Services (NHLS) and their associated academic institutions in Bloemfontein, Cape Town, Durban, Johannesburg and Tygerberg. The division has stored samples from the start of the epidemic and has generating over 100 full-length SARS-CoV-2 genomes to date.

Early data suggests multiple introduction into Cape during the early epidemic (March/April), and the high diversity following the epidemic peak suggests multiple seeding events fuelled the epidemic in the Western Cape. This is a large effort comprising of scientists from the laboratory (Carolyn Williamson, Deelan Doolabh, Lynn Tyers, Arash Iranzadeh, and Bruna Galvao), and a team from the diagnostic laboratory (Marvin Hsiao, Ruan Marais, Stephen Korsman, Michelle Reddy and Diana Hardie). This project is funded by MRC, Department of Science and Innovation and EDCTP.

The impact of COVID-19 and lockdown on mental health and gender-based violence in South African women. Lindi Masson, Celia Mehou-Loko and Funeka Busakwe, Division of Medical Virology, Department of Pathology/IDM are currently conducting the Mucosal Injury from Sexual Contact (MISC) clinical study which aims to evaluate behavioral and biological differences between adolescent and adult South Africa women to understand the extreme HIV incidence in young women in this country (PIs: Heather Jaspan and Jo-Ann Passmore; UCT PI: Masson). Like all observational research projects, MISC was halted in March following instruction from the Ethics Committee. However, once it became clear that lockdown was going to last longer than anticipated, the study team felt that it was important to maintain contact with the cohort, and to ensure that they were safe, particularly since the cohort consists of young women ages 16 to 19 years who are highly vulnerable to gender-based violence. Additionally, the United Nations issued a call for data on the impact of COVID-19 on violence against women and we felt it would be important to contribute information about the women in our setting.

We thus developed a telephonic survey to assess the physical and emotional wellbeing of women enrolled in MISC, with strong emphasis on gender-based violence. The first part of the survey was a mental health assessment using the PHQ-9 questionnaire. The PHQ-9 is a depression screening tool usually administered to study participants at each visit. It allows the counselor to assess depression levels and suicidal ideation.

The second part was a questionnaire designed by the study team to assess vulnerability to gender-based violence primarily, as well as other forms of violence, transactional or coerced sex, verbal abuse, etc. In Cape Town, 28 surveys were conducted during the various stages of lockdown by the study counselor. The survey was also administered to 26 young women by collaborators at CAPRISA in Vulindlela, rural KwaZulu Natal.

To prevent any risk of exposure to SARS-CoV-2 for the staff and the participants, the questionnaire had to be administered over the phone. The survey also had to be designed in a way that protected the participant's privacy and confidentiality as much as possible; all the while gathering detailed information, establishing a non-judgmental and sympathetic space. Administering the surveys over the phone was dependent on having stable telephonic connections for the duration of the survey. Many participants experience precarious living situations.

For the most part, they reside in informal settlements in and around the Philippi area where they have bad cell phone reception, very little privacy, some share a phone with a friend or a parent. Many of the referral channels usually utilized by the study team were already under strain and as a result, participant care was more complicated than anticipated.

Two participants experienced and reported explicit threats of violence. One young lady was threatened by a friend who was himself under the influence of alcohol while she was walking to the grocery store. The participant spoke to her mother openly about the incident and her mother made sure to speak to the young man's parents. Another participant reported that her former partner had threatened to rape her and that she needed assistance coping with the lingering fear of him coming back. The study team referred her to a local NGO with social workers. The team also provided her with the fare needed for transport to the NGO and followed up with her repeatedly to ensure she was being given sufficient assistance.

Although not part of our survey study, one of our MISC study participants was brutally murdered by a man in the community during the lockdown period. These events highlight the extreme vulnerability of these women and the need for continued support. Ten women were scored as having mild depression on the PHQ-9 scale and were followed up and reassessed to ensure that they were doing well. Concerns surrounding employment and education, and overall future were the main stressors for the majority of participants. Most participants who were contacted, claimed to be very happy that the study reached out to assess their wellbeing.

Our next step will be to compile the surveys, compare the data to pre-COVID-19 depression scores, and disseminate the findings by publication. It is our hope that our findings will inform the development of youth-friendly confinement and social distancing strategies appropriate for young women in rural and peri-urban settings; as well as the support services that are necessary to ensure the wellbeing of young women. Emergency services currently prioritize crisis situations; however, the team has identified a high incidence of emotional distress that is easy, inexpensive and important to diffuse before it escalates to a critical point.

Department/Unit:	Research Centre for Health through Physical Activity, Lifestyle and Sport,
	Division of Exercise Science and Sports Medicine, Department of Human
	Biology
Key Persons:	Estelle Lambert, Honorary Lisa Micklesfield, Lara Dugas, Dr. Odunitan-
	Wayas, Dr. Kufre Okop, Ms. Zazi Phirihiri, Mr. Moses Isiagi

**Initiative:** Policy Brief on Physical Activity for Health in Africa: COVID-19 and Beyond COVID-19 has highlighted the need for a multi-faceted national plan for physical activity to underpin the country's health development. Some of the diseases that increase the risk of individuals with COVID-19 being hospitalised or dying are the same lifestyle-related diseases associated with being physically inactive, said the University of Cape Town's (UCT) Professor Vicki Lambert. These include diabetes, hypertension, and obesity.

Critical to this plan is recognising that physical activity is a vital component both in preventive health care and building social cohesion in communities during and after the pandemic, said Lambert. Lambert, who is from UCT's Research Centre for Health through Physical Activity, Lifestyle and Sports (HPALS), is spearheading the African Academic Consortium on Physical Activity for Health, with Associate Professor Rowena Naidoo. Naidoo is from the University of KwaZulu-Natal's College of Health Sciences.

The consortium, a group of more than 40 academics, researchers, and implementation partners from nine African countries, have developed two policy briefs for government. These are part of a series planned for release. The first targets the public and the second targets children in three environments: at home and school and in their communities. Endorsed by the African Physical Activity Network (AFPAN) and supported by the Western Cape Government Department of Health, the policy briefs will guide decision makers, planners, and programme leaders, during the COVID-19 pandemic and beyond, said Lambert. The first two policy briefs focus on three areas:

- Addressing five major challenges to minimise the risk of community transmission during exercise. These are ensuring social distancing (2m); wearing masks (non-medical, cloth masks); exercising in small groups (outdoors, with social distancing); exercising indoors (with proper ventilation) and avoiding the use of shared equipment or sanitising in between users. These same concerns apply to children, particularly in school settings. Accompanying useful infographics can be placed in prominent locations to remind participants to exercise safely.
- Adopting a policy framework created by the World Cancer Research Fund which is aligned to the World Health Organization Global Action Plan for Physical Activity (GAPPA).
- Introducing a four-step policy recommendation for physical activity for public in the African region.

Is the initiative related to work that has taken place before COVID-19? Professor Lambert has worked with the World Health Organization on developing the Global Action Plan for Physical Activity in 2018 and has recently served on the World Health Organization's Guidelines Development Group, to develop the new evidence-based global recommendations for physical activity, which will be released in November 2020. Lambert was the founder and original chair of the African Physical Activity Network (AFPAN) from 2007-2013. The network has been in hiatus, but has recently been reactivated, and Lambert will be providing funding support for the secretariat and re-commission the website, until the end of 2021.

**How has the initiative changed in the current context?** The AFPAN network created and supported collaborative research, particularly regarding physical activity and the built environment, in our region. COVID-19 created a window of opportunity with governments in the region regulating and restricting mobility, while at the same time recognising the importance of physical activity for health. This academic consortium developed the policy briefs in response to these actions.

What are some of the biggest challenges COVID-19 has made visible in your field? COVID-19 has exacerbated the already existing inequalities, with respect to access to safe and enjoyable opportunities for physical activity in our region and has highlighted the need for policy actions to "level the playing fields".

What are some of your key insights and learning you have gained during this time? Our key insight is that indirectly, COVID-19 has presented a critical moment or "a window of opportunity" to emphasise that access to safe and enjoyable PA should be a basic human right. The response of civil society ("pushback") and desire to seek opportunities for PA during local 'lock downs' highlights the urgency of this call to policy- and decision-makers at local, provincial, and national levels.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: The academic consortium has established a strategic plan for dissemination and for monitoring and evaluation (M&E).
This M & E will form the basis of a chapter for an MSc for one of students in the Division of Exercise Science and Sports Medicine. We are also planning on submitting the policy briefs for publication in an international peer-reviewed journal and have already held several webinars.

# NEWS AND OTHER MEDIA OUTPUTS

### Category: News

**Tags:** Home, Daily news, FHSNewsFeed, COVID-19, physical activity, Vicki Lambert, Research Centre for Health through Physical Activity, Lifestyle and Sports (HYPALS), African Consortium on Physical Activity for Health

# [RELATED ARTICLES on UCT NEWS WEBSITE]

Title: SA's COVID-19 response is hurting other health priorities

**URL:** https://www.news.uct.ac.za/campus/communications/updates/covid-19/-article/2020-05-28-sas-covid-19-response-is-hurting-other-health-priorities

- Title: Maintaining organisational health during COVID-19
   URL: <u>https://www.news.uct.ac.za/article/-2020-08-13-maintaining-organisational-health-</u>
  duringcovid-19
- Title: Our bodies love rhythm and routine: why sleep is your bestie URL: https://www.news.uct.ac.za/campus/communications/updates/covid-19/-article/2020-05-08- our-bodies-love-rhythm-and-routine-why-sleep-is-your-bestie
- Title: COVID-19 and how to manage your mental health
   URL: <u>https://www.news.uct.ac.za/article/-2020-03-27-covid-19-and-how-to-manage-your-</u>
  mentalhealth
- **Title:** UCT Faculty of Health Sciences COVID-19 collaboration URL: <u>https://www.youtube.com/watch?v=58UsfllhmTI</u>
- **Title:** The surge diagnostic testing team was also featured in 'Thuma Mina' by UCT Choir URL: <u>https://www.youtube.com/watch?v=iDwbUDpYs3E</u>
- <u>http://www.publichealth.uct.ac.za/news/uct%E2%80%99s-faculty-health-sciences-involvement-cticc-hospital</u>
- <u>https://www.westerncape.gov.za/assets/departments/health/COVID-19/covid-19\_providing\_palliative\_care.pdf</u>

# Other Outputs & Activities (Benjamin Kagina)

- Presented in a webinar on "COVID-19 Vaccine trials in Africa" organized by the Global Emerging Pathogens Treatment Consortium (<u>https://www.getafrica.org/</u>).
- Provided comments to a question on the Russian COVID-19 vaccine candidate (<u>https://www.dfa.co.za/south-african-news/dont-get-too-excited-about-russias-covid-19-drug-warns-sa-experts-9a17c5ea-4419-4332-91f1-4cfa582971e9</u>)

• Recently (end of September 2020) interviewed on an article about conducting clinical trials (with reference to COVID-19 vaccines) by a journalist from Brainstorm Magazine. The article has not yet been published

Department/Unit:	Department of Radiation Oncology
Key Persons:	Jeannette Parkes, Sulaiman Moosa, Nanette Joubert and Rachelle Steyn
Initiative:	Various

During the COVID-19 pandemic, Radiation Oncology continued to run full new patient services, full radiotherapy and chemotherapy services. Follow up services were truncated to minimise attendances and risk. All treatment protocols were re-designed according to best available evidence from the Chinese and Italian experience, as well as other natural disasters, to minimise visits, hypofractionate radiotherapy and use oral chemotherapy protocols where possible, and protocols with less visits.

A linear accelerator was identified for treatment of COVID positive cases with all precautions in place. Urgent follow ups were initially assessed with a tele-conference visit and invited to attend the department only if absolutely necessary.

Radiation Oncology staff volunteered for early re-deployment and 2 staff were re-deployed each week to work in the COVID wards. Dr Zainab Mohamed and Dr Rene Krause were instrumental in the writing of the COVID palliative care protocol for the province. No staff took annual leave between March and September. A weekly update meeting (to allay staff anxiety) was combined with staff wellness and information on the provincial response to the pandemic and hospital statistics, as well as the latest hospital and provincial SOP's were discussed. The department of Psychiatry allocated a psychologist (Louise Frenkel) and a psychiatrist (Jacke Hoare) to attend the department and provide support to groups of staff where necessary.

# **Research:**

Existing research projects were placed on hold within the department, however, we developed a protocol along with partners in Internal Medicine, anaesthetics and Medical Physics, to use low dose whole lung radiotherapy for treatment of patients with severe COVID. A Varian grant was applied for and this is still undergoing HREC, SAHPRA and Varian processes for approval. In addition, we cooperated with a consortium of Oncology professionals throughout Southern Africa, to apply for an international grant, to look at Oncology services during the COVID-19 pandemic and the psychosocial effect on effect patients and staff. We collected statistics related to Oncology services and have applied for a retrospective collection of data from our service, Paediatric Oncology and Haematology as well as key oncological surgical services. Lastly, we were involved in writing from the point of view of lowand middle-income countries, an article on behalf of the international Paediatric Radiation Oncology society, regarding the response to COVID-19 for treatment of Paediatric cancer patients.

# Radiology (Prof Sulaiman Moosa)

The COVID-19 pandemic made us aware that we are living in very uncertain times, faced with a pandemic of cataclysmic proportions, causing profound staff anxiety and tension. In order to cope with this crisis, we set about to limit patient and staff exposure. In addition to staff education regarding safe imaging, we documented Standard Operating Protocols for Imaging during this period and shared them with all the secondary hospitals in our region. To improve staff resilience, we set about a staff support strategy including virtual daily updates which had a significant role in reducing the early anxiety.

We built readiness for the challenges we had to face by developing safe systems and procedures. Imaging in the time of COVID-19 induced a severe physical toll on our staff as they moved heavy X-ray machines to wards and adopted labour intensive strategies in the scanners. The new governance policies about COVID-19 safety had also given us the opportunity to restructure and improve our imaging service. Our staff members assisted the clinicians in the wards. This activity provoked much anxiety as many staff members has not performed clinical duties for many years. But our pioneers paved the way and provided positive feedback which caused the team to gain confidence. Our staff continues to provide support to the testing centre for patients suspected of being infected with the virus. Our staff safety and wellness strategy included vulnerable staff working from home via teleradiology whilst being fully engaged with the needs of the department. We practiced social distancing in the reporting rooms and promoted online social networks to maintain social contact and improve personal resilience.

#### **Medical Physics (Nanette Joubert)**

Medical Physics is one of the key professions listed as a scarce skill in South Africa.

As Medical Physics is such a small and specialised division, we had to make plans to make sure services keep running during the COVID-19 pandemic. During this time, we split the Medical Physics division to work in 2 teams. One team would work onsite, and the other team from home, and then rotate. This was done to minimise contact and hence risk. During this time, we implemented a lot of technology and software for continued meetings and lectures on an online platform. Five of the 16 staff members contracted COVID-19. While they were off sick, we managed to uphold services as delivered to Radiotherapy, Nuclear Medicine and Diagnostic Radiology. We also sent care packages to our team members who struggled financially during this time. The Medical Physics division managed the triage table at the entrance to Radiotherapy, to minimise traffic and endorse social distancing in the department. We assisted with contact tracing in the department.

One of our managers, Annemari Groenewald, is taking part in the COVIDsortium study. The Medical Physics division is a co-developer and co-investigator of the Low Doserate Radiotherapy in COVID (AFRIcoRad) protocol and has applied to SAHPRA and HREC for this study. Medical Physics division played a large role in the upgrade of the teaching facilities within Radiation Oncology. The upgrade included introduction of state of the art audiovisual equipment with dual screens, dual GSH and UCT networks and conference facilities. This enables a remote teaching facilitation. All these features supported a smooth transition to online teaching and blended learning during the COVID pandemic, and normal service delivery could continue seamlessly. It also enabled outreach and teaching to any remote students across Africa.

An entire new Nuclear Medicine Management system was implemented using an online platform. This has never been done before and although it took a bit longer the system is now fully functional. All research projects which did not involve patient contact continued. Research involving patients commenced after permission was granted by Professor Marc Blockman in August 2020. Teaching and training were only interrupted during the initial level 5 lockdown. The teaching program was moved to an electronic platform making allowance for all PGWC and International registrars and consultants at GSH and RXH to participate. The platform was also extended to other Alumni who were affiliated with our division. The undergraduate 5th year training also moved onto an electronic platform.

#### Eh!Woza:

<u>Eh!woza</u> was founded by Dr. Anastasia Koch (Junior Research Fellow, <u>Molecular Mycobacteriology</u> <u>Research Unit [MMRU]</u>), Ed Young (Independent <u>Conceptual/Visual Artist</u>), **Prof. Digby Warner** (MMRU) and Bianca Masuku (Junior Research Fellow, <u>CILT</u>; PhD Candidate, MMRU). The programme was incubated within the <u>Institute of Infectious Disease and Molecular Medicine</u> (IDM) before a prestigious multi-year <u>Wellcome Trust</u> Discretionary Award in Public Engagement facilitated Eh!woza's transition to independent NGO. Eh!woza operates at the intersection of community and public engagement (CPE), youth education and skills development, advocacy, and research. Projects are youth-focused and driven by a desire to engage people and areas heavily impacted by infectious diseases, primarily TB and HIV. The goal is to encourage positive health-seeking behaviour and to decrease stigma through collaboration and innovation.

Since its inception in 2013, Eh!woza has developed multiple inter-related CPE projects, including: (i) <u>*Eh!woza doccies*</u> engages youth in Khayelitsha with <u>high-impact TB research</u> conducted in the IDM and combines this with a two-week film production workshop in which learners are provided with film equipment and guided to produce short documentaries about the personal and social impact of TB; (ii) <u>*MSF/Muso/DR-TB Collab*</u> is a collaboration with the global humanitarian organisation, <u>Médecins Sans Frontières</u> (MSF), and facilitates story-telling between survivors of drug-resistant TB (DR-TB) and young Khayelitsha-based musicians through the production of music, <u>music videos</u> and cyphers reflecting the experience of surviving DR-TB; (iii) <u>*Eh!woza Schools*</u> uses media produced in the first two projects (above) to stimulate robust and innovative discussion around health and the social determinants of health. The Wellcome Trust award initiated in January 2020, three months before the first COVID-19 cases were observed in South Africa and a country-wide lockdown was implemented. While this had severe implications for Eh!woza's in-person workshops and operations, we were able to pivot quickly, producing a suite of COVID-19 resources.

# 1. Teaching/Skills Development: film production around COVID-19

Over the past year, a group of previous participants of the Eh!woza projects have undergone training in film production to develop creative capacity within Eh!woza and to provide a space for knowledge coproduction. When lockdown was implemented nationally, the Khayelitsha-based youth team (Samuel Flans, Alfa Fipaza, Abongile Njamela, Bongekile Booi and Bongi Paku) had already acquired the skills to produce broadcast-quality documentaries. Their efforts enabled a series of films describing the social determinants and impact of COVID-19 on local communities, all of which enjoyed widespread national dissemination in partnership with the <u>Bhekisisa Centre for Health Journalism</u>, <u>News24</u> and local community broadcaster, <u>CTV</u>:

- <u>https://ehwoza.com/makhaza-2020</u> (describes thoughts around COVID-19 in Makhaza, Khayelitsha).
- <u>https://ehwoza.com/covid-fears</u> (reveals community fears around COVID-19 as the reality of the pandemic settles in).
- <u>https://ehwoza.com/covid-evictions</u> (describes the intersection of homelessness and evictions with COVID-19).
- <u>https://ehwoza.com/sassa-vs-covid</u> (touches on struggles to access social grants during COVID-19).
- <u>https://ehwoza.com/the-anti-blackness-of-covid-evictions</u> (expands on the links between housing insecurity and COVID-19).
- <u>https://ehwoza.com/copy-of-the-anti-blackness-of-covid-evictions</u> (describes the health conditions of a community where a sewage pipe had burst for over a month).

# 2. Messaging: Opinion writing in mainstream press

Two articles were published in the *Daily Maverick* online newspaper:

- <u>https://www.dailymaverick.co.za/article/2020-06-24-messaging-during-covid-19-what-can-we-learn-from-previous-crises-of-infectious-disease/</u> (describing the importance of situationally relevant messaging during COVID-19).
- <u>https://www.dailymaverick.co.za/article/2020-07-28-covid-19-from-the-perspective-of-a-drug-resistant-tb-survivor/</u> (describes the intersection between COVID-19 and drug-resistant TB, Bongekile Booi).

# 3. Messaging and information: COVID-19 Informational Animations

In collaboration with local artist, <u>Mitchell Gilbert Messina</u>, Eh!woza has developed a series of animations that provide practical advice around COVID-19 in a visually engaging manner. Graphics are available as a free informational resource for any organisation or platform. Moreover, postgraduate students and postdoctoral research fellows based in the MMRU provided invaluable feedback on the presentation and content. A series of five animations were produced, with a set of three describing COVID-19 vaccines still under development: <u>https://ehwoza.com/covid-19</u>

After the move to Level 1 and the stable decrease in COVID-19 cases, Eh!woza opened in-person training on 12<sup>th</sup> October 2020. The pandemic has created both challenges and opportunities and generated important learnings. The importance of research literacy and engagement with health research has been highlighted by COVID-19, as has the need for (pre-)existing capacity that can be rapidly deployed in the event of a national health crisis. Many of the COVID-19 control measures require buy-in and behavioral change by citizens, and effective CPE and situationally relevant health messaging are essential contributors to this.

For Eh!woza, the increased independence of trainees (described in point 1) will be invaluable as we restart key programmes. Moreover, the COVID-19 pandemic has highlighted how important it is to maintain responsiveness within CPE and maintain a keen awareness of both participant and community needs when implementing projects.

Department/Unit:	Obstetrics and Gynaecology
Key Persons:	Dikokazi Zweni
Initiative:	Screen and Treat Project for Cervical Cancer Prevention in Khayelitsha
This report was written	by our Senior Research Sister Sister Dikekazi Zwani who interviewed over

This report was written by our Senior Research Sister, **Sister Dikokazi Zweni** who interviewed over 168 women who had previously participated in our 'screen and treat' study conducted at our research site located at the Site B CHC. We obtained HREC approval (HREC 020/2017 linked to 703/2014) and created a standardized questionnaire. Verbal consent was given by all participants. This is her report:

# Impact of the COVID-19 pandemic on women living in Khayelitsha participating in cervical cancer screening services:

# Dikokazi Zweni

The COVID-19 pandemic has affected many families, individuals and businesses. Prior to lockdown in March 2020, our project, KCCSP, (Khayelitsha Cervical Cancer Screening Project) had screened over 3000 women using a point of care test for high-risk types of Human Papillomavirus (HPV) followed by treatment of women with a positive test, performed on site, mostly by me, the senior research nurse on the study. We were forced to close down our recruitment of women due to the risks associated with

COVID but were concerned about their health and safety. We therefore developed a questionnaire enquiring about their lives and those of their families since COVID.

We contacted as many women as we could telephonically and after obtaining informed consent, I engaged in a conversation with the women using the questionnaire as a guide. So far, I have contacted 168 women who are between the ages of 30 and 65 years, 89 women living with HIV and 79 women who do not have HIV. Among the 168 women I have interviewed, 2 were admitted to hospital due to COVID and 6 were sick with COVID but did not require admission. Forty-nine (30%) of women lost friends or family to COVID.

I have used this opportunity to provide telephonic-health education about the signs of COVID-19 as well as precautions needed to prevent either getting infected or transmitting infection to others. I have been offering counseling as well. Some of our patients have been tested **positive for COVID-19 and hospitalized**. Just under 30% of our patients have **lost their loved ones** through the pandemic, many of whom were sole breadwinners for their households. Some stories were really heartbreaking: for instance there was one patient during the interview, who told me she was on day 3 of not taking her ARVs because members of her community told her and others that **ARVs make you more at risk of contracting the COVID virus**.

I had to give health education on the importance of taking ARVs to make sure her immune system remains strong at all times. She was so grateful that I called her, because she was not sure exactly what to do about her ARVs and she did not have enough information about the COVID virus, which was new and scary. Another patient told me she **ran out of her asthma medication because when she went to collect it at the clinic, she was tested for COVID and told not to come to the clinic until she got her results.** When I called her, she was on her second week waiting for results and was panicking. She asked me to help her get her COVID-19 results, which I did, and she was so relieved to find out she was COVID negative and that it was safe for her to collect her medication the following day at the clinic.

The sad part about this pandemic is the **job losses**. There are patients that have lost their jobs and having difficulties accessing their UIF (Unemployment Insurance Fund) money. Some said they often **go to bed without food**. I advised them to visit the nearest social workers and ward counselors for food parcels. Some called me back, to inform me they had been called back to work. With lockdown level being eased, some businesses were crawling back to normal, even though it was not easy with a lot of precautions required. We gave our patients an opportunity to call, regarding any information they were not sure about. Since the clinics were **only taking emergency cases**, I opened the door for them to call if they were not feeling well. I was able to provide telephonic assistance and to advise them when or not to visit the clinic or local hospital.

What I also discovered during the interviews, was that many of our patients were taking **Artemisia afra** "umhlonyane" (a readily available herb which is found growing anywhere or is dispensed by traditional healers), which they believed cures the virus. So, I had to advise on the dangers of taking medication, not prescribed by the doctors, not knowing the side effects and contraindications. Patients have been so grateful and appreciative of the information that I have provided them and the fact that we followed them, providing them with helpful information.

Department/Unit:	Pathology
Key Persons:	Marisa Heyns
Initiative:	Death to Burial: COVID-19 Risks Live On

COVID-19 infection risks do not disappear immediately after the death of those who succumb to it. In death's aftermath, the people closely involved with the body – families, carers, priests, hospital porters and undertakers – remain at risk. University of Cape Town (UCT) forensic scientist Dr Marise Heyns has been travelling the length and breadth of the Western Cape province, training organisations on how to manage human remains in the context of the virus.

For Heyns, lockdown has meant four wheels, a road map app and food on the move (*padkos*). Having volunteered to assist the state Forensic Pathology Services (FPS) at the start of lockdown, Heyns took over some of their training sessions in the Western Cape in April. The province has the country's highest reported infection and mortality rates. Since then, the senior lecturer in biomedical forensic science in UCT's **Division of Forensic Medicine and Toxicology** has travelled extensively – including to Ceres, Swellendam and Bredasdorp – over 3 000 km across the province to train those who manage the dead, where there are still dangers of becoming infected. "COVID-19, as a coronavirus, is categorised as a hazard group 3 pathogen. All decedents should be managed as potentially infectious," Heyns explained. "Infection is transmitted via droplets spread from person to person, through face-to-face contact or from contaminated surfaces. Caution should be used in procedures such as moving the body or handling possibly contaminated clothing."

#### Need to know:

Her training includes information sessions (virtual or in person) on COVID-19 and the aims of lockdown, demonstrations of donning and doffing personal protective equipment and clothing, and all the steps and stages between death and burial or cremation. "Typically, we discuss the collection of the deceased in homes and hospitals, sources of contaminations, minimising contact with infected surfaces, protection, handling of paperwork, movement of bodies from home or hospital to undertaker to cemetery or crematorium, disinfecting equipment and vehicles – and the safe disposal of medical waste." The need for information has been particularly marked among undertakers, hospital porters and care home staff.

For example, Heyns said that many funeral services did not know how long aerosol droplets from the deceased's lungs, deposited before death, could remain infectious, and how the surfaces under and around the deceased may infect them. "I've realised that the industry is largely unregulated, with many small enterprises functioning without adherence to minimum standards. These are spread widely in the metro regions, but not as much in the smaller towns."



Forensic pathologist Dr Marise Heyns training undertakers and allied staff in the Maitland Crematorium Chapel.

So far, Heyns has trained more than 700 people virtually and in person (following all the necessary safety precautions), helping them "prepare for the worst of the pandemic". The Western Cape's levels of COVID-19 infection and commensurate deaths are expected to rise steeply in the next months as people return to their workplaces and sectors of the economy reopens. Heyns said she had received "only praise and gratitude" for her direct approach to presenting the extent of COVID-19 risks and her innovative approach on minimising risk in cost-effective ways.

### Swab all bodies

Her work for the FPS does not involve testing, but she believes swabs should be taken from all bodies brought to undertakers and state mortuaries to help contact tracing. "It's not yet a requirement to take swabs from all deceased, and this not only affects the stats and data, but makes tracking difficult," Heyns noted. "If we do not know who was positive at the time of death, we can't test and isolate the people who have been in direct contact, such as family, carers, and so on. It's not yet a requirement to take swabs from all deceased, and this not only affects the stats and data, but makes tracking difficult."

While Heyns travels, what she has seen on her road trips is not reassuring. "Not everyone is practising social distancing or wearing protective masks. Over the weeks that I have travelled, I can categorically state that social distancing was, and still is, not practised. Masks are also mostly used when shopping but not when socialising in the streets or neighbourhoods. There seems to be no difference in the number of people outside places of residence during lockdown compared to any other time." There's also confusion about which guidelines to follow from death to burial or cremation. "There are so many national and provincial guidelines, directives, circulars and regulations going around that there are conflicting instructions. Not one of these documents address the complete path of a deceased from death to burial or cremation for all the possible handlers of the remains. On top of that, some will advise following [the] World Health Organization guidelines.

#### Service protest

There is also misunderstanding among undertakers about what is or isn't allowed during burial ceremonies. Heyns cites one bizarre example. "A few weeks ago, there was a guideline that asked undertakers not to provide chairs or gazebos at the cemeteries, as these must be decontaminated after use.

One family got upset with their undertaker for not providing the 'full' service when another undertaker on the day had provided chairs for the family they were contracted for. This resulted in the first undertaker being chased around the cemetery by a highly upset, shovel-wielding family member!" The latest amendment posted in Government Gazette No 43350 on 25 May 2020 (Government Notice No 457) indicate that only close family should attend the funeral service of a person who died of COVID-19; that burial services be restricted to two hours; that the body may not be delivered the night before the burial, but in the morning of the burial; and that the funeral undertaker must ensure that the remains are not touched during viewing.

During this period of training, Heyns has identified areas for improvement in the identification of all stakeholders. This includes the process of dealing with COVID-19 remains, in the manner guidelines and instruction are communicated; ensuring all stakeholders receive prompt, accurate and effective instructions; and the manner questions or issues arising from the handling of remains can be addressed. "I have collected valuable research data, which can now be analysed and translated into recommendations for future applications," she said.

#### Shoulders to the wheel

Heyns is among many UCT staff doing their bit during the pandemic. In the health sciences faculty, for example, staff at the Division of Forensic Medicine and Toxicology ran a socially distant sweatshop where a facemask factory was set up to cut and pin facemasks. This "can-do" attitude is especially pertinent with the focus on Africa Month – and what it means to be African. Heyns is quite clear about this. "For me being an African means that you care for each other and carry people's best interests at heart, even if it means taking risks yourself. Yes, there is a risk for me to enter hotspots and come into contact with people and premises where [the] COVID-19 virus is present, but if my sessions can protect these essential workers and save but one life, it would all have been worth it," she said. "I know that not only are these workers at risk, but their families and anyone they come into contact with outside their work environment is also at risk." She added, "*Scientia potentia est*. Knowledge is power but 'Knowledge shared is knowledge squared'.

Children's Institute - protecting children's rights

The past year was marked by economic and social disruption caused by the COVID-19 pandemic with devastating effects on millions of South African children and their families. Many of government's decisions and relief responses did not pro-actively consider or respond to the urgent needs of children or their caregivers.

As an applied policy research and advocacy unit the Children's Institute (CI) was well placed to contribute to the crisis response. With the support of some of our funders we quickly adapted our programme in an attempt to protect children's basic needs during the lockdown. We played a role in highlighting the needs of children during the unfolding pandemic and lockdown, in engaging with and supporting government departments, in helping to coordinate civil society engagement, in conducting research and compiling existing evidence, in advocating for interventions to protect children and alleviate the effects of the lockdown, and in supporting litigation.

We focused our attention on matters where we had particular expertise, namely birth registration, social assistance, nutrition and food security, early childhood development, and child protection services.

We provide some examples below:

Campaign for an increase to the Child Support Grant

We campaigned for a temporary top-up to the child support grant to provide some protection against the economic effects of lockdown. The child support grant, a cash transfer of R440 per month 2020, was below the food poverty line and not enough even to provide basic nutrition for a single child. But it had the advantage of wide reach and pro-poor targeting. A substantial increase to the child support grant would immediately reach 13 million children and 7 million caregivers, as well as a large share of the poorest households and those that depended on informal sector income. We worked closely with policy advisors to the Presidency, as well as civil society groups including SALDRU, C19 People's Coalition, Budget Justice Coalition, UNICEF and other partners in crafting and targeting our advocacy campaign. Our strategy included widely endorsed letters to the President and the Ministers of Social Development and Finance and a public petition by Amandla.mobi which received nearly 600,000 signatures, and extensive media advocacy. Our campaign helped to escalate pressure on the state to introduce a disaster relief package for poor households. This included a R300 increase to the child support grant for May 2020 and, from June to October, a caregiver grant of R500 for all CSG caregivers. All other existing grants were topped up by R250 and a new Covid-19 unemployment grant of R350 was introduced. We continued to engage with civil society groups around the call for the extension of the disaster relief programme after October 2020, and for continued expansion of the social protection programme, especially for children and their caregivers. The Minister of Social Development acknowledged publicly in May 2020 that the amount of the child support grant was below the food poverty line and should be addressed. At the end of 2020 the Department of Social Development issued a TOR for research to review the value of the child support grant and outline the impacts of increasing it. We are awaiting the outcome of our bid.

Ensuring that all children are registered, have identity and can claim entitlements

During April and May 2020, Home Affairs closed all its offices and withdrew its service points from maternity wards. We predicted this could negatively affect over 100 000 babies (approximately 20,000 per week) who were born during level 5 lockdown and also delay their access to the child support grant. We therefore advocated for a) the registration of the 'lockdown' babies to be prioritised by Home Affairs and SASSA once they re-opened; b) the 30-day period for birth registrations to be extended to 90 days so as to prevent these families having to go through a late birth registration process; and c) for breastfeeding mothers to be able to bring their babies with them to Home Affairs. This resulted in a positive response from the Minister of Home Affairs and SASSA and Parliament held the Minister of Home Affairs accountable for reporting on plans and progress in registering these newborns.

Ensuring unregistered children's grants were not terminated during lock-down

During 2020, SASSA continued their practice of terminating unregistered children's grants every 3 months if the caregiver did not have a receipt from Home Affairs to prove that they had applied for a birth certificate. Caregivers could not meet this requirement as Home Affairs were closed or operating at reduced capacity. We drew on our individual client cases to demonstrate the problem and requested data to be extracted from the social grants database so that we could quantify the extent of the problem. We calculated that in March and April alone, 992 children nationally had lost their grants due to the punitive implementation of the 3-month rule.

We had a series of virtual meetings with the DSD and SASSA during which they agreed to re-instate all terminated grants and to suspend the 3-month cancellation practice.

SASSA also agreed to facilitate a consultation with civil society and provincial SASSA officials with the aim of finding a systematic solution to the implementation challenges with regards to grants for children without birth certificates. A roundtable was held in October, SASSA committed to updating their internal strategy document to clarify the rules and procedures for officials; and publishing accessible information on their website explaining how children without birth certificates can access grants.

#### Ensuring the National School Nutrition Programme (NSNP) was resumed

When South African entered lockdown and schools were closed, 9.6 million learners stopped receiving daily meals at school. The National School Nutrition Programme (NSNP) is targeted to lower quintile schools and reaches the poorest 70% of learners. In the context of widespread job-loss and rising poverty, it was essential to maintain existing programmes to supplement child nutrition. We joined forces with EE, Section 27, EELC and CCL to advocate for the National School Nutrition Programme to be re-activated for all the learners who usually receive food during school term. The campaign started off as a series of letters to the Minister of Basic Education and culminated in successful litigation with the High Court compelling DBE to provide food to all eligible learners and to report to the court every 15 days until the programme is fully functional. Our full amicus submission and expert affidavit can be found here.

# Training Child and Youth Care Workers

We were meant to do fieldwork as part of a project to develop a replicable model for multidisciplinary team management of child abuse cases. But all fieldwork was suspended due to the COVID-19 lockdown so instead the team diverted its focus into supporting frontline workers who were providing essential services to children and their families. We worked in partnership with the National Association of Child Care Workers, Jellybeanz, and UNICEF to create an online training course for child and youth care workers. We adapted the empathic care and self-care sections of the programme we had intended to pilot. This in-service training supports Child and Youth Care Workers to safely serve children, families and communities during the COVID-19 crisis as it evolves and the longer-term impact after that within their scope of practice. The course was accredited by the South African Council for Social Service Professionals (SACSSP). According to the SACSSP, 51 organizations and 1923 individuals had completed the training by end October 2020.

# Gauging progress for children, and challenging the slow violence of malnutrition

The South African Child Gauge® is published annually by the Children's Institute, University of Cape Town, to monitor progress towards realising children's rights. The 2020 issue drew attention to the lifelong impact of poor nutrition, and identifies critical points for intervention across the life course to reduce the growing burden of obesity and non-communicable diseases; and enhance children's health, education and employment prospects.

When we started work on the book we had no idea how profound an impact COVID-19 would have on our own work, families and the health and nutrition of South Africa's children. The unfolding crisis - including government's failure to take decisive action to uphold children's rights to food, health care,

education and social assistance – and community-based organisations efforts to step in to fill the void - created a real sense of urgency, and provoked ongoing media engagement throughout 2020 in order to put children and child nutrition on the national agenda, including calls for the state to uphold children's rights in the context of rising unemployment, the disruption of health care services and the closure of schools and ECD programmes.

A strong editorial team led by Prof Julian May and Dr Chantell Witten helped mobilise over 60 contributions from across the nutrition and food security sector including the directors of the Centres of Excellence in Food Security, Nutrition and Human Development. While the editorial advisory committee brought together experts in nutrition, public health, food systems and early childhood development and enabled us to interrogate children's food and nutrition security from a variety of disciplinary perspectives. It was particularly helpful and strategic to have Thulani Masilela's input as Chairperson of the National Food and Nutrition Security Committee to ensure that our evidence spoke clearly to a policy audience.

Given the impact of COVID-19, we opted for a virtual launch with a series of high-profile speakers including the First Lady Dr Tsepho Motsepe, Vice Chancellor Mamokgethi Phakeng, and the CEO of the South African Human Rights Commission, Adv Tseliso Thipanyane who added their voices to the call for action.

We engaged actively with the news media to inform national discourse and to draw attention to the social and commercial determinants of child malnutrition – through a series of opinion editorials, articles, radio and TV interviews with an estimated value of R7.5 million. And we used Twitter to highlight the linkages between Gauge and the State of the Nation Address, budget speech, and the Lancet Series on Maternal and Child Undernutrition.

The launch was followed by a series of presentations to academic, civil society and government fora including the National Food and Nutrition Security Committee, Western Cape Food Forum, BRICS Academies of Science and the NRF Impact webinar to ensure that the findings inform the research and policy agenda.

We hope that the 2020 Gauge will reframe the way in which people think about child malnutrition – and that the concepts of 'slow violence' and a 'child-centred food system' will gain traction in policy and programming and generate a renewed sense of urgency and common purpose. We also hope that the interdisciplinary nature of the 2020 Gauge will strengthen undergraduate and postgraduate education and shift the thinking and practice of a range of professionals working in nutrition, health, education, social protection, and social policy – so that they are able to better appreciate their own role within the broader food system.

http://www.ci.uct.ac.za/cg-2020-food-and-nutrition-security

# Key Persons:Jacqui FriedlingInitiative:Identifying unknown individual skeletal remains at mortuaries

Even during the pandemic, death has not halted. The state mortuaries still had unknown individuals coming in to be identified. This work assists the Forensic Pathology Services and South African Police Service on forensic identification of unidentified individuals and homicides providing social and criminal justice in our community. Directly assisting with closure for families. Most people who benefit from these partnerships are the impoverished and disadvantaged sectors of society, the majority of whom come from the historically disadvantaged communities.

Is the initiative related to work that has taken place before COVID-19? Yes.

How has the initiative changed in the current context? Yes, instead of a group of us doing the work together, I have been flying solo during COVID-19 i.e. I have been doing the forensic cases without assistance.

What are some of the biggest challenges COVID-19 has made visible in your field? That if you are delivering an essential service - you must be prepared to go it alone especially if you are passionate about what you do!

What are some of your key insights and learning you have gained during this time? That yes, I can manage to do complex and what should have been a team activity on my own. I have learnt to work more efficiently and comprehensively.

How might your social responsiveness work undertaken during this period be sustained or inform work going forward: I will still continue it and hopefully impart to the rest of the team what can be achieved if you really have the heart to do it!

Department/Unit:	Department of Paediatrics and Child Health
Key Persons:	Heather Zar
Initiative:	Supporting Families in the Drakenstein Child Health Study During COVIE

The Drakenstein Child Health Study (DCHS) established in 2011, is a population-based birth cohort study, situated in a peri-urban area in Paarl. Approximately 1000 pregnant women from 2 low socioeconomic communities were enrolled, followed through childbirth and mother-child pairs are currently followed through childhood. The study aims to identify the early life determinants of child health, through comprehensive measurement of maternal, environmental and child factors and careful ongoing evaluation of child health including respiratory health, neurocognitive development, growth and nutrition. The COVID-19 pandemic has been a very challenging time for these communities, with exacerbation of poverty and limited access to care. Through the pandemic, the DCHS team have worked closely with participants and their families providing health education, supporting the health of mothers and children, distributing masks and undertaking literacy and poverty alleviation programs.

A mask making and distribution program was initiated in April 2020 by Jacinto Munro, a long-time staff member in the MRC Unit on Child & Adolescent Health, Department of Paediatrics, in which over 7,000 masks were made and distributed to those in need. Through this initiative and from in-kind donations from DCHS collaborators, each DCHS participant and their family members were trained in mask usage and provided a mask kit which included cloth masks for all and information sheets on COVID-19 symptoms, care and when to seek medical attention. Additionally, books donated by Book Dash were distributed to each child to facilitate reading at home while schools were closed.

A poverty alleviation program was implemented to address food insecurity in the cohort. In May 2020, the DCHS together with local NGOs, began screening participants for food insecurity experienced as a result of the national lockdown. Where identified, participants were issued with food vouchers, made possible through donations from DCHS collaborators, grants and Breadline. To date, over 300 vouchers have been issued.

Throughout the COVID-19 pandemic, the DCHS team has promoted health literacy and education for participants around COVID symptoms, transmission and public health interventions, and continued to provide referrals as needed. The team is now also able to provide ongoing care for participants, and to catch up any missed health visits, addressing some of the indirect consequences of the pandemic and lockdown.



Image Description: A DCHS participant at their study visit wearing their donated cloth mask and reading a book donated by Book Dash.



Image Description: Over 7000 masks for children and their family members were made by staff member, Jacinta Munro in the MRC Unit on Child & Adolescent Health, and her large group of volunteers.

Department/Unit:Department of Psychiatry and Mental HealthInitiative:Various

#### **Messages4Mothers**

At the beginning of the COVID-19 pandemic, the Perinatal Mental Health Project (PMHP) co-founded a coalition, <u>Messages4Mothers</u>, to develop and disseminate accessible information for mothers. These messages - developed for physical and mental health, parenting and mindfulness - were translated into several languages and adapted for multimedia platforms, including radio and the National Department of Health COVID-19 WhatsApp number. Furthermore, the PMHP service at the Hanover Park Midwife Obstetrics Unit was adapted to offer counselling support via telephone, WhatsApp and Skype which operated throughout the Lockdown period to provide support for mothers.



#### Support for Adolescents.

Since 2018 the Centre has been involved in two projects investigating the effectiveness of a psychological intervention for adolescents experiencing psychological distress. At the advent of COVID-19, both projects were adapted rapidly to adjust to the Disaster Management Act restrictions. First, trained registered counsellors delivered four sessions of motivational interviewing and problem-solving therapy telephonically to at risk adolescents in vulnerable communities. Second, "Chommie the chatbot", a digital chatbot accessible through Facebook was created to support adolescents experiencing psychological distress. The intervention uses a chatbot (a pre-programmed decision tree conversational agent that interacts through messaging), to deliver psychological content in a format individualised to the user needs and preferences. This was a collaboration with the World Health Organization.



**CPMH Mental Health Messaging project** 

At the onset of lockdown, we designed a mental health resource leaflet for distribution in communities via existing community networks, and through *Cape Town Together* a network that organized locally during the pandemic. The leaflet provides simple stress management techniques, grant information and mental health referrals that provide services free of charge.



# ASSET study

During the COVID-19 pandemic, the ASSET team opportunistically pivoted its focus to understanding the impact of the COVID-19 lockdown on the mental health status of perinatal women attending public healthcare clinics in Cape Town. Fieldworkers telephonically interviewed 885 perinatal women. We found that 12.5% of women had probable common mental disorders, 43% were severely food insecure, and 20% experienced domestic violence. Psychological distress increased significantly during the lockdown period, compared to before the COVID-19 outbreak. While the lockdown may have been successful at curbing the spread of COVID-19, it came at a high cost to an already vulnerable population.

#### STRiDE project (Strengthening Responses to Dementia in Developing Countries).

With the outbreak of COVID-19 in South Africa, the STRiDE project undertook a survey to ascertain how long-term care facilities (LTCFs) that accommodate older people were responding to COVID-19 and the lockdown and what support they required.

We received responses from 48 facilities across all 9 provinces. LTCFs reported challenges and frustrations (e.g. emotional toll, inadequate government support, financial crises) but also a range of positive responses and innovative processes developed to manage the lockdown and infection control. We will be finalising the report with the participants and deciding with them how to disseminate this most effectively. See <a href="https://ltccovid.org">https://ltccovid.org</a> for further details.

#### Lockdown Food Drive by the Spring Foundation at Lentegeur Hospital

The Spring Foundation is an NPO at Lentegeur Hospital that is actively supported by members of the UCT Department of Psychiatry and Mental Health, with the aim of developing initiatives to assist the evolution of the hospital from an outdated institution to a Recovery centre.

Soon after the start of the Lockdown, the Foundation was made aware of acute food shortages in households of patients who had recently been discharged from the hospital but were unable to access disability grants due to the closure of SASSA offices.

In a short space of time a Food Drive was successful in raising over R105 000 and with further contributions of vegetables from another Spring Foundation project, the Lentegeur Market Garden, thus far over 203 households have received food hampers with just under a thousand beneficiaries receiving support.

Although Disability Grants are now being processed, we have become aware of ongoing need from many who attend the hospital and further fundraising initiatives are being planned so that we can continue to provide support. The Market garden has now also established contact with a number of soup kitchens and all our excess produce is being made available to help in providing meals to the many who are struggling.



Department/Unit:Dept. of Health & Rehabilitative Sciences/Division of Occupational TherapyKey Persons:Zarina Syed, Amshuda SondayInitiative:Reflections on Implementing an Online Practice Learning Experience

#### Introduction

The hard lockdown mandated by the South African government on the 27th March 2020 resulted in the abrupt cessation of practice learning for third year occupational therapy in their first block of 2020.

These students were on the anchoring leg of their practice learning experience where consolidation of knowledge and skills is often observed by educators and clinicians. The sudden end of the block and uncertainty about when the clinical platform would be reopened to students in the subsequent months meant that clinical educators had to develop creative ways of engaging students with practice learning experience. Our initiative towards the development of an online consolidation block took into consideration innovation within teaching that would be of benefit to the populations our students would serve in coming months and years. One of the most significant challenges we collectively identified was the impact of the COVID-19 pandemic on occupational therapy practice in future. As educators, we needed to find ways of engaging students with how occupational therapy practice can be shaped within the context of the pandemic and allow for an emergence of a new way of practice.

#### **Responding to the need**

In response to the continuously changing context, third year educators at the Division of Occupational Therapy worked together to draft a plan for an online practice learning consolidation block. This was a 3-week block, designed to be implemented using various online forums that would allow for the translation and consolidation of knowledge and skills learnt in their first block at the start of the year. The purpose of the initiative was to create a space for students to consolidate their practice knowledge under the guidance of the third year educators. Taking into consideration the COVID-19 regulations, the lack of physical contact with students greatly impacted on the choices we made to pursue an online

way of learning. This new way of doing practice served as an opportunity to engage with creative ways of practice and also develop a resource for future practice learning that may possibly be included as part of the occupational therapy curriculum.

#### The Block Structure

In the first week of the block, clinical educators encouraged students to draw on authentic clients from their original block. Students were asked to think about the influence of the COVID-19 pandemic on mental and physical health practice as well. It was important to facilitate the students' thinking around how occupational therapy practice was influenced by the pandemic. At the end of week 1, students were assigned paper case studies and were required to complete assessment and intervention planning based on cases provided. Students were tasked with engaging in simulated learning experiences as a means of skills development to implement assessment methods and intervention strategies. Within week 2, students were required to submit short videos illustrating these learning activities. Clinical educators encouraged students to ask people who lived in their immediate environment to act as models for these learning activities. This was done to ensure that the students' learning occurred in a safe environment (in considering COVID-19 regulations). Weekly Zoom sessions were the forum in which tuts with clinical educators occurred. Clinical educators had agendas that they would draw on in order to facilitate the knowledge and skills development of students. An assessment opportunity was created in the form of a case presentation on the case study allocated to them, in order to determine their progress of clinical reasoning in understanding the occupational therapy process. These assessments were conducted using the Zoom forum. Feedback was provided to students on their performance.

#### Conclusion

The conception of an online practice learning block unearthed many opportunities for students and educators in particular on thinking about learning in an innovative way. Challenges uncovered during the block highlighted how the context of our student populations influenced their engagement in the online consolidation block. Some factors identified included lack of or poor internet facilities, lack of devices, constrained physical space that was not conductive to learning. Knowledge, skills and attitude as fundamental attributes for learning was achieved through various online facilitation methods. The main purpose of this online block was to consolidate learning and it was achieved through the successful partnership between educators and students.

The authors would like to acknowledge the practice learning team for their participation in the design and implementation of the online consolidation block. Thank you to Hanske Flieringa, Rabia Hassam, Naiema Razack, Layla van der Schyff and Iesrafeel Abbas.

# Faculty of Humanities

# Introduction

The Faculty of Humanities is, by its very nature, enmeshed in the struggles of people and in understanding and bettering the human condition. Over the past year, with a global pandemic wreaking havoc on a scale not seen for a hundred years, our scholars have stepped up to the plate and focused their research and teaching to find solutions to the many problems posed by Covid-19 and an economy



that was brought to its knees. This report provides a snapshot of some of the work done in the research and teaching sphere to combat the effect of Covid-19 on society, broadly speaking, and on constituents close to home, namely our students and staff. I commend my colleagues for rising to this immense challenge.

Further to the research and teaching aspects, I want the spotlight to fall on a few initiatives from within the faculty that have made a huge difference to the

successful continuation and completion of the academic year. The Educational Development Unit (EDU) took on the Emergency Distance Learning project for the entire Humanities Faculty. It started with a Care Call process where all students in the Faculty was contacted via telephone to find out who would require EDL and which courses they would require on EDL. This information was captured and sent to the Departments to allocate EDL Tutors for these students. The EDU then covered theses tutor costs as well as the data costs for tutors. The EDU also covered the Care Callers costs. This process is being repeated in Semester Two.

Staff in Fine Art worked hard to develop and deliver online learning and other learning materials to students all over the country. Moreover, all first-year students at Michaelis have been issued with Emergency Art kits. These kits contain basic art materials which will enable our first-year students to complete their projects, while in lockdown, at home and away from their studios. The idea is that between this kit, and found materials, such as recycling and household products, students should be able to continue to make artwork.

The Transformation Committee initiated a WhatsApp line to which students and staff sent their experiences during the early days of Covid-19 and the nationwide lockdown via voice notes. The sense of community, understanding and empathy this fostered cannot be overstated.

The faculty also initiated an emergency Covid-19 relief fund for students who found themselves in distress due to the pandemic and the lockdown, which had severe repercussions on many in our society. The fund, which disbursed a once-off grant of R1500 to students in need, was intended to alleviate some

of the suffering our students experienced this year. The closure of residences and unforeseen travel and accommodation expenses left many students destitute and without food for long periods, and as a faculty, we had to step in, to the best of our ability.

This following of the report includes further examples of the work done in the Humanities Faculty in responding to the COVID-19 pandemic. Numerous challenges and opportunities characterise this work and demonstrate the resilience of the Faculty's socially responsive teaching, research and other types of engaged scholarship.

The various contributions from the Faculty refer explicitly or implicitly to different types of challenges, namely:

1) Teaching and learning challenges which include:

- Redesigning courses for remote and online teaching and learning.
- Getting study materials to students with poor or no internet connectivity.
- Increased stress levels and untested coping strategies.
- The suspension of in-person practicals in the field (sometimes called field practice) during periods of "hard" lockdown.
- Balancing three ethical issues: health, safety and hunger.

2) Research challenges such as:

- Disruptions to research plans especially data collection, and finding ways to practically adapt to online or cell phone data collection or, more recently, to practicing social distancing protocols during "soft" lockdowns.
- Requests from community-based partners for access to online information and resources.
- The need for flexible timelines especially for research students and research assistants.

Amidst the difficulties of the pandemic, there have been numerous opportunities for innovative teaching and new research from within the Humanities. These include:

- New online initiatives in teaching and learning. For example, students sharing work-in-progress online with peers or supervisors using Zoom, MS Teams or WhatsApp, has helped to overcome the isolation and the need for regular feedback during the lockdown. Tutorials are run in similar ways with limited success.
- 2) Experts in various disciplines, including film and media, anthropology, social development were approached to make new online training videos, which were accessed by UCT students via Vula and, in some cases, then made available to the wider public via YouTube. This created opportunities to develop new partnerships with professionals off campus in order to bring practitioners' real world experiences and knowledge into the online teaching and learning space.
- 3) Research investigating the needs of healthcare workers and vulnerable groups accessing healthcare services; the challenges that the COVID-19 virus poses to social life, how it is impacting society and the responses of ordinary people; feminist political economy of the COVID-19 crisis; the effectiveness of interventions such as feeding schemes, state grants, coping strategies, policing, and communication technologies; the effects of COVID-19 on families, care and money within households; and the challenges of parenting during the pandemic.
- 4) Research outputs include conference papers, journal articles, and online media pieces. Examples of practical publications include the "COVID-19 Parenting Tips" and a workbook

"My South African Pandemic Story" on how to face disaster for school students as well as theatre performances such as COVID Waarheid/COVID's Truth that examines the "production of cultures of equality and gender positive approaches to wellbeing".

- 5) New COVID-19 related partnerships:
  - Between UCT researchers and international organisations such as the World Health Organisation's collaboration with the Centre for Social Science Research's Accelerate Hub (and other organisations) in Parenting for Lifelong Health; and the Nordic Africa Institute and other institutions' participation in Corona Times Public Engagement Blog initiated and hosted by the Institute for Humanities in Africa.
  - Between UCT departments (or units) and government structures/services such as UCT's Schools Improvement Initiative with social work students and the Khayelitsha-Eastern Substructure (Metro District Health Services) around learner wellbeing and agency during the pandemic; and the UCT Accelerate Hub's COVID-19 digital parenting partnership with the national Department of Social Development (supported by international organisations).
  - Between academic departments and civil society organisations such as the collaboration between African Gender Institute, the Centre of Theatre, Dance and Performance Studies and the NGO Sex Worker Education Advocacy Task Force which lead to the theatre production in 2020 of COVID Waarheid/ COVID's Truth; and the Department of Social Development's partnership with the Consortium of Civil Society Organisations and the Western Cape Substance Abuse Forum to develop a trauma informed substance use disorder and gender-based violence crisis intervention plan of action at various shelters for the homeless.
- 6) Using blogs, talks, news media, online articles, newsletters as platforms for public awareness and critical debate about the pandemic, the consequences for society, the effects of state responses on-society and the introduction of new complexities and vulnerabilities in society.
- 7) Participating in online conferences, discussions and festivals, which are more affordable because travelling to or hosting these events is expensive.
- 8) Online streaming, which sometimes is made available to wider audiences even after workshops or conferences have ended.

The above opportunities and initiatives taken in research, teaching and engaged scholarship illustrate the resilience and adaptability of the Humanities Faculty during the pandemic. We also acknowledge the ongoing hardships and personal losses experienced by students and university staff. We salute the efforts of *all* members of the university community to struggle through this pandemic. To learn more about these initiatives and others, see the below submissions from various departments and units.

# Department/Unit:Centre for Social Science Research (CSSR)Initiative:UKRI GCRF Accelerating Achievement for Africa's Adolescents (Accelerate)

In light of the COVID-19 pandemic and associated lockdown and potential long-term restrictions in South Africa and Eswatini, the research team in the <u>Accelerate Hub</u> at the <u>Centre for Social Science</u> <u>Research</u> designed alternative research activities focusing on healthcare workers to take place in 2020-21 in South Africa and Eswatini.

(1) Qualitative interviews in South Africa: Within the broader <u>Helping Empower Youth Brought up</u> in Adversity with their Babies and Young children (HEY BABY) study, a sub-study focused on healthcare service provision for adolescents and youth living with HIV (AYLHIV) and adolescent mothers began during the COVID-19 lockdown. Initial reports during the strictest lockdown indicated changes in healthcare services provision and access.

The aim of this sub-study – led by Ms Nontokozo Langwenya, Ms Charne Glinski and Dr Jane Kelly – is to qualitatively explore the dynamics involved in continuing healthcare service provision for AYLHIV in public health facilities in the Eastern Cape during the COVID-19 pandemic. Twelve healthcare providers from public health facilities that are long-standing research partners of the HEY BABY study team were invited to participate in semi-structured telephonic interviews focused on their experiences of providing healthcare services, both in general and specifically to AYLHIV and adolescent mothers. Key emerging findings from the first round of interviews highlight (1) increased workload due to staff shortages; (2) feelings of guilt amongst some healthcare providers who worry they are not able to provide a good enough service because of fear of contracting the virus; (3) a decrease in attendance of adolescents at clinics; (4) a decrease in "companion attendance" (adolescents who bring their friends to the clinic), and (5) service provision alongside specific disease or departmental lines, with reduced opportunities for integration. These findings indicate the importance of providing support, including psychosocial support, to healthcare providers during the COVID-19 pandemic, as well as finding innovative ways to ensure that vulnerable adolescents continue to access critical healthcare services.

(2) Mixed methods research in Eswatini. Designed in collaboration with the Kingdom of Eswatini Ministry of Health and the Nursing Council, this study led by Dr Hlengiwe Sacolo, Ms Nontokozo Langwenya, Prof Cathy Ward and Dr Elona Toska, aims to understand the experiences of healthcare providers during COVID-19 as caregivers at work, at home and in their communities. It will assess knowledge, attitude and practices of COVID-19 among practicing nurses, level of self-reported mental health challenges, resilience and coping strategies, including work-family conflict and parenting experiences. Qualitative research will include focus group discussions with frontline nurses and nurse managers, purposefully selected from the four regions of the country. This method will be complemented by a quantitative survey of an estimated 334 healthcare providers from a randomly selected stratified sample of healthcare facilities. Findings will be shared with the Kingdom of Eswatini Ministry of Health and Nursing Council and inform future programmes to support nurses and healthcare providers during pandemic and high-adversity situations.

#### **Department/Unit:** Department of Social Anthropology

As COVID spread globally, it became clear that not only was it wreaking havoc on physical bodies, but it was having startling, often horrifying, effects on social worlds. Yet, while there has rightly been an emphasis on medical responses, too often social science and humanities perspectives have been ignored, leading in some instances to policies and practices that have been as damaging as the virus – some would argue more so.

So glaring is the absence of Humanities disciplines in these processes that the South African Academy of Science made a special call for greater involvement of social scientists among decision-makers guiding government. Anthropology's staff have taken the call seriously, and focused on public intellectual work, engaging intensively in a variety of academic and social media to name the challenges that the virus poses to social life; to identify the fracture lines along which it has run; and to inform the public, both in South Africa and elsewhere, of how attempts to manage COVID's course are impacting on society.

Through radio interviews, seminars, blogs, academic talks and papers, and personal engagement in community initiatives, we seek to demonstrate the power and importance of social science's understanding of how disease materialises both social schisms and possibilities.

This kind of work is critical to a reimagining of an ungenerous world and the human systems that threaten to render it uninhabitable.

In making our skills and expertise available in this way, Anthropology has contributed to greater public awareness of the militarisation of health; the ways a disease initially described as 'equal opportunity' and the measures taken to deal with it have both reinforced structural inequalities and initiated new complexities in social worlds. Taken together, this body of public work has demonstrated the dangers of imagining that solutions designed for one place can easily be transposed to others.

They offer a rich public archive of careful thought about how and with what effects societies absorb illness. This is an important platform, consolidating long-standing work in Medical Anthropology and furthering our new programme in Critical Health Humanities, with its interdisciplinary and public scholarship potential. Some examples of this work can be found below:

# Academic Blogs

- Divine Fuh Smiling behind the mask. Post-COVID fantasies. American Ethnologist. 27 July.
- Divine Fuh The time of masks: Everyone to themselves and COVID-19 for us all. *Public Anthropologist.* 8 May.
- Francis Nyamnjoh https://americanethnologist.org/features/pandemic-diaries/post-covid-fantasies
- Francis Nyamnjoh https://www.coronatimes.net/covid-19-humbling-humbled-virus/
- Francis Nyamnjoh https://nai.uu.se/news-and-events/news/2020-06-16-we-cry-because-we-cannot-sell---restricted-mobility-in-the-wake-of-the-covid-19-pandemic.html
- Susan Levine https://www.coronatimes.net/south-africa-covid-19-ghosts-of-apartheid/
- Susan Levine https://www.medizinethnologie.net/the-militarisation-of-the-covid-19-response-in-south-africa/
- Kharnita Mohamed https://www.coronatimes.net/debilitating-capitalism-and-the-tragedy-of-essential-work/
- Fiona Ross https://www.coronatimes.net/soap-dignity-south-africa-lockdown/
- Fiona Ross https://culanth.org/fieldsights/hope-and-history.
- Nikiwe Solomon <u>https://ccworld.hkw.de/stories-of-relating-in-a-time-of-covid-19/</u>
- Tamuka Chekero https://www.coronatimes.net/convivial-networks-migrants-pandemic-south-africa/
- Tamuka Chekero https://blogs.worldbank.org/dev4peace/immobility-and-social-networksimpact-covid-19-critical-coping-mechanisms-urban-refugees

# **Newspaper Articles**

- Fuh, D. Freedom Day is here, it is time to reflect and make up for our omissions. Daily Maverick.
- Fuh, D. Outbreak changed everything except the people. Weekend Argus.
- Green, L. When will Bheki Cele learn that guns and public health don't mix? Daily Maverick.

# **Radio Interviews**

- Fuh, D. SA FM: Corona Times A global portal where academics share insights on COVID-19
- Fuh, D. Cape Talk Radio: Nostalgia in the time of Corona
- Fuh, D. Weekend Argus: Outbreak changed everything except the people.

- Fuh, D. Cape Talk Radio, Today with Kieno Kammies: How do mass graves affect a nation's psyche covid-19
- Fuh, D. Cape Talk Radio: Local informal settlement 'Covid-19' with areas 'Coronavirus' and 'Sanitiser'
- Levine, S. Interview for Radio 786 on stigma and COVID-19, 7 May.

# Department/Unit:Department for Film and Media StudiesKey persons:Julia Cain and Liani MaasdorpInitiative:Class Roundtables for Creative Production

The shift to emergency remote teaching had repercussions for student research projects in the creative fields. Sharing work-in-progress is standard practice in the world of filmmaking and this was already incorporated into our curriculum at the Centre for Film & Media Studies with our screen production students. However, the various levels of lockdown we have all been coping with since March this year necessitated re-thinking this. We pivoted work-in-progress sharing and engagement from in the classroom to online - firstly for undergraduate individual projects and then later to postgraduate projects (both group and individual). In the process we gained a renewed appreciation of how valuable this practice is to the development of creative work (whether in real life or online), and further realized the remarkable benefits these 'safe and brave' online sharing spaces were providing to students on a personal level during the isolation of lockdown by maintaining community, a sense of connectedness to their peers and their work as well as academic momentum.

We have experimented with various techniques and tools to enable students to share their work-inprogress with their classmates. Our first experiment with doing this was with our  $3^{rd}$  year screen production students during hard lockdown in term 2. We had already shifted their experimental film project from a group to an individual assignment, which could be a film shot and edited at home (if they had the tools) or a script. We then set up a topic in Forums on Vula where students were encouraged (but not required) to engage by writing a few lines to introduce their project, share concerns and ask for any specific feedback they might want and then upload their draft film or script. We prefaced this activity with some inputs on the 'safe and brave space' we were trying to establish, in which all work and engagement within the Forum was to be regarded as private for the group and not to be shared beyond – as well as emphasizing the importance of being constructive and respectful in their engagement with each other's work.

The result was that 17 of the 21 registered students posted their work and then engaged with each other with a total of 127 messages posted under this one topic. Their reflective blog assignment on this creative project yielded very positive feedback on the work-in-progress sharing aspect, and the resulting films and scripts were also of a notable quality, particularly considering the conditions of lockdown.

Currently, we are further developing our methodology for enabling students to share their work-inprogress in virtual spaces with our honours and masters-level creative media students by implementing 'Roundtables' where we bring both post-graduate groups together online. Our series of roundtables has included sessions that alternate in focus between their creative media projects and their written critical reflections. In preparation for each Roundtable, students are asked to post their work and any comments or concerns in the relevant Topic in Forums. We then bring everyone together in Zoom and facilitate an opening session where everyone gets to check in and hear from everyone else in the group. As facilitators we then provide some brief inputs (e.g., writing techniques; a set of discussion points) to help frame the next part of the morning - the breakaway rooms. Students are assigned into breakaway groups based on a variety of factors into groups of 3 - 4 students per virtual room.

These breakaway sessions take up most of the morning program - we extended them based on feedback to 75mins – before we bring everyone back to the main Zoom room for final feedback and reflection.

The feedback on the Roundtables has been very gratifying – students have identified a range of benefits from the sessions based on peer-to-peer learning (the usefulness of seeing other people's work in development; getting engaged feedback on their own work; learning of new techniques or theories they can apply in their own writing or creative work) as well as the more personal benefits of the engagement being 'reassuring,' 'encouraging,' and 'motivating' and also useful for providing informal deadlines to have work ready to share and wanting to show progress to their peers. We hope that the process of these Roundtables will also bear fruit in the quality of the final creative projects and written reflections to be submitted at the end of this year academic year!

Department/Unit:	Centre for Film and Media Studies
Key persons:	Liani Maasdorp
Initiative:	UCT TV ScreenCubator Programme

The UCT Doc Impact Series 2020 consists of eight sessions/panel discussions around the theme of documentary film impact producing hosted at three virtual (online) film festivals between September and November 2020. A panel discussion on alternative distribution, using the BAFTA award winning documentary film *For Sama* as a case study, was offered at the **Encounters South African Documentary Film Festival** (Encounters) in September. Three sessions, namely an introduction to the principles of impact producing; a conversation between two African case studies; and a panel discussion featuring impact producers from Africa, South America and North America, were offered at the **Durban Filmmart** (DFM) in October. The series culminates with four sessions at the inaugural **Africa Film for Impact Festival** (AFFIF) based in Abuja, Nigeria.

The aims of the series were to:

- 1. engage with aspiring filmmakers virtually when it proved impossible to meet them face to face to share knowledge and experiences.
- 2. continue our social responsiveness and community engagement work in a new space when in person contact was impossible.
- 3. document and share local knowledge to a new and fast-growing field of research and practice related to documentary film.
- 4. bring a range of perspectives from impact producers working around the world to an African audience.
- 5. connect filmmakers working across Africa to each other.
- 6. contribute to knowledge production that can inspire and capacitate filmmakers to produce and distribute documentary films in service of social change.

We provided 10 alumni of the Stepping Stone programme with **data** to attend Encounters (film screenings and industry events) and made 20 **free DFM passes** available to UCT students, staff and Stepping Stone alumni.

#### Is your practice research, teaching, service or innovation focused or a combination of these?

The UCT Doc Impact Series 2020 offered us the opportunity to work across a variety of concerns, including research, teaching, service and innovation.

- **Research**: Industry leaders in documentary impact producing were invited to take part in panel discussions. Sessions were recorded and serve as data for a chapter about South African documentary film for the forthcoming book *Documentary film cultures in the age of COVID-19* edited by Dafydd Sills-Jones and Pietari Kaapa (Peter Lang).
- **Teaching**: All the sessions were included in the lesson plans of the two CFMS PG documentary film production courses, namely Honours Video Project (FAM4000W) and Making the Critical Documentary (FAM5015W).
- Because the sessions were streamed live on FaceBook audiences beyond UCT Students and the registered attendees of the various festivals and markets could be reached. Apart from sharing knowledge, this also allowed us to market UCT CFMS as a world class department to study documentary film and impact producing. Hosting the sessions in Zoom allowed us to engage interactively with those who registered for the sessions, but the sessions were also available for streaming after the fact and were later uploaded to Vula to accommodate students for whom the cost of data is a challenge.
- Service: Impact producing entails designing strategies that optimally position documentary films to effect social change, and is used particularly for social justice, human rights and environmental work. We believe that by sharing knowledge about how to use film strategically as a tool for change not only empowers the filmmakers who attend our sessions but has a positive effect on the issues those filmmakers tackle through their work.

# If your practice is related to work that has taken place before COVID-19, how has it changed in the current context?

When it became clear that we would not be able to offer the two Stepping Stone community engagement video training courses we normally offer at the UCT TV Studio during the winter and summer breaks, we knew we had to conceive of a virtual strategy to reach aspiring young filmmakers, especially those from under-resourced communities. After several discussions with the UCT TV learning team and other stakeholders a decision was made to offer a series of virtual sessions at films festivals and markets. Documentary impact producing was chosen as the theme and the sessions were conceived as a series that would grow in complexity and scope as we gained more experience working in the online space.

# What are some of the biggest challenges COVID-19 has made visible in your field?

Documentary film production and distribution have both suffered due to covid-19. In person filming became risky, theatres were closed and community screenings became impossible. Filmmakers and impact producers in the global north swiftly moved their work online, developing powerful strategies for using social media, online screenings and virtual audience interactions to continue their work. In the global south the task of reaching the audience is complicated by socio-economic factors, and it's simply not possible to engage audiences in informal settlements and rural areas on Facebook or at a virtual festival. The cost of travelling to high profile international festivals is often prohibitive for African filmmakers. Hosting virtual sessions allowed us to bring world leaders in documentary film impact producing to African audiences; to document African case studies; and to generate best practice models from the global south and share them with the world. There is no reason why we can't continue to do so going forward.

#### Why is it important for universities to offer their resources in the time of COVID-19?

It is as important as ever to offer our resources to our students and stakeholders outside the university. As a matter of fact the need for access to information and resources rose because of lack of physical access to learning and recreational spaces.

So offering resources and opening them to constituents outside the UCT community was more important than ever. In the documentary film field the physical limitations imposed by covid-19 created opportunities for engaging online with festivals, markets, platforms and thought leaders from Africa and beyond, and we seize the opportunity to foster relationships and to build our reputation as an institution that offers a world class learning in documentary film production and distribution.

# How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

Hosting virtual sessions allowed us to bring world leaders in documentary film impact producing to African audiences; to document African case studies; and to generate best practice models from the global south and share them with the world. There is no reason why we cannot continue to do so going forward.

Department/Unit:	Centre for Film and Media Studies
Key persons:	Alexia Smit
Initiative:	The Free Film School: Online Learning Resource
This project is run by Is	nno Dogg (CDUT & Ergo Eilm School) Alexia Smit (UCT) and Condigue

This project is run by Jenna Bass (CPUT & Free Film School), Alexia Smit (UCT) and Qondiswa James (Free Film School).

As local film screenings were cancelled and the film industry ground to a halt, I began speaking with Jenna Bass (filmmaker and lecturer at CPUT) about my distress at all that our current students would not be exposed to good South African films and would not have opportunities for hands on filmexperience during the Covid-19 crisis. We came up with a plan to develop the existing "Free Film School" which Jenna runs into an online resource. We decided to reach out to filmmakers and industry workers within our network and ask them to make short film training videos suitable for a broad audience of aspiring filmmakers. Each video contributes to a digital film curriculum available to all learners for free online via Free Film Youtube platform: the School https://www.youtube.com/channel/UCeE5 oXr7p02xZnp7vjHQ8A

The digital learning repository has been made be accessible to all youth who have access to the internet. Our focus was on providing a selection of resources which would be relevant to South African learners and sensitive to the needs of our local context. The videos were made be available to help support University programmes (at both UCT and CPUT) to transition online.

Several of the videos were provided to UCT students on our Vula sites at a zero data rate. However, we designed the videos to be accessible to all, rather than simply those currently enrolled in formal education. Students have responded warmly to the project. For example a second-year learner writes: "I've basically finished the series that you have compiled …and it is everything I ever wanted to learn. I'm really just here to say thank you because the selection of the videos posted was quite informative and varied enough for me to find a little in everything."

We successfully applied for DAC funding for this project and will be able to offer participating industry professionals a small honorarium for their videos. In this way the project also makes a small contribution toward supporting the incomes of industry workers during a time when the film industry is affected by Covid 19.

While we are no longer in strict lockdown and students are slowly returning to our studios for camera training, the website is still going strong. We hope that we will be able to continue building this resource. Beyond the aims associated with this immediate crisis period, the project is motivated by an interest in skilling a future generation of creatives. The hope is that this project will have a lasting impact on a post-Covid SA film industry.

Department/Unit:	Centre for Film and Media Studies
Key persons:	Julia Cain, Marion Walton, and Herman Wasserman
Initiative:	Reimaging Journalism Teaching During a Pandemic

The world rediscovered journalism in the wake of the Covid-19 pandemic. The pandemic dominated the news agenda this year. As the world went into lockdown, there was a global surge in traffic to established news sites, as a bewildered public was discovering the importance of trustworthy, verified information. Even social media platforms began clamping down on the deluge of disinformation and misinformation - what the World Health Organization dubbed an 'infodemic'. At the same time, the economic impact of the pandemic also had a detrimental effect on the news industry, and many news outlets around the world were forced to close their doors.

In South Africa, journalists and other media workers were considered "essential services", which meant that they could move around and keep documenting what was happening under the Covid19 regulations, even under "Stage 5" or complete lockdown. Nonetheless, the need for social distancing imposed real constraints on conventional methods of reporting, and so journalists around the world used online methods as they worked from home, and interviewed people who were managing under various kinds of lockdown conditions. As teachers in the Multimedia journalism stream of the Centre for Film and Media Studies, we needed to make sense of this new journalistic landscape and at the same time revamp our trusted methods of teaching journalism under these conditions. We knew journalism students and teachers around the world were confronting similar challenges to those facing the industry. We were also dealing with additional pressures given that our students still needed to be trained in basic journalistic skills, but campuses had shut down and many students had real difficulties gaining access to any specialised equipment and software.

While some journalism training programmes and film schools in the Global North were able to offer online seminars and screencasts via videoconferencing, the same level of access to the internet, computer hardware and even electricity could not be assumed here. Staff and students at the Centre for Film and Media Studies found that they needed to turn to low-cost asynchronous methods such as mobile phones, Whatsapp interviews, audiocasts, and text chatrooms, since broadband mobile internet access is extremely costly in this country.

Teaching staff responsible for training multimedia journalists put their heads together and immediately decided that our courses definitely needed to shift rapidly to address current circumstances, and that the basic journalistic skills which form the core of our curriculum were more important and valuable than ever.

Students needed practice in research, reporting, interviewing, and verification and they also needed to develop their capacity to operate flexibly online, and to understand the constraints of internet access which made it difficult for many South Africans to use online alternatives, to inform themselves, and to participate in public deliberation via the news media at a time of extreme pressure on society as a whole and on individuals. Our strategy focused on providing students with a critical context to:

- Understand the strengths and weaknesses of online journalistic practice in SA,
- Connect with a community of practice of working journalists who could share the techniques and skills they had developed in remote interviewing,
- Develop advanced skills in verification and fact-checking.
- Consider how data journalism was used to convey key scientific and medical information to the public
- Use the equipment at hand to them in order to document the stories of everyday life under lockdown.

# **Critical context**

For good or bad, under conditions of lockdown and social distancing, all journalists were needing to use telephonic and online methods a lot more and we spent some time thinking about what journalism in South Africa might be missing out on, and who might be excluded with the massive move online.

The shift to online methods was not entirely new for journalism, as face to face journalistic methods are costly, and newsrooms are under increasing pressure to cut costs associated with traditional reporting. Online interviewing skills are based on journalistic staples such as the telephonic or email interview, and, like these methods, they have both strengths and weaknesses.

Bad examples of reporting abound - for example, overstretched journalists may rely exclusively on one or two social media posts for a story. Or they may report what only the loudest voices on social media sites are saying, forgetting that almost half of South Africans do not have internet access. At the same time, there are excellent examples of reporters and publications who used online methods but still prioritised original reporting that reaches out to broader publics. For example, Mia Malan from the Bhekisisa Institute for Health Journalism discussed the challenges of covering Covid-19. She mentioned that she had decided not to send Bhekisisa reporters into the field during lockdown. Nonetheless, her team were still able to produce excellent long-form narrative features such as this one about women planning escape from abusive homes during lockdown "every bit done over the phone and WhatsApp".

Nonetheless, a key weakness of online methods in the SA context is inequality in the public's levels of internet access. The remote journalism module began with students researching the details of digital inequality in SA. They explored profiles of the least connected South Africans, engaging with stories which would help them understand which citizens were least likely to be able to participate in an online interview, or even to access news online. Engaging with this research helped them make sense of the inequalities which many of them were experiencing first hand as they tried to participate in remote teaching and learning.

# Verification

In this section of the course, we explored the issue of verification of sources and information. Verification is an important skill for journalists to have, as it helps them establish whether the information they receive from a variety of sources is trustworthy and legitimate. Truth and accuracy are important ethical principles for journalism, but in the contemporary context of misinformation and 'fake news' it is often difficult for journalists to verify the information they receive.

In the context of the pandemic, people's anxiety and desire for explanations and certainty often led them to cling to conspiracy theories in an attempt to find explanations for confusing events. Social media users often share misinformation out of a misplaced sense of civic duty, to warn others of impending dangers.

Journalists have to understand these motivations for the sharing of misinformation and know how to appeal to audience's need for trustworthy information. As audiences increasingly recognize the importance of established news platforms and trusted journalists to know what information they can trust, it is important that journalists know how to do fact-checking. In this section of the course, students were introduced to the practice of fact-checking. They were taught some basic techniques to verify information and given an assignment to practice these important skills themselves. They were asked to find an example of a dubious information item or image pertaining to Covid-19, and put themselves in the shoes of the editor of an established news outlet to explain how they would go about verifying the information they received. We also touched on the difficult question of how to balance the right to freedom of speech with the need to counter disinformation - the South African government's decision to criminalize misinformation about Covid-19 was a case in point.

#### Data journalism

Students engaged with the complexity of constructing information about a pandemic, exploring how common indicators such as testing data, cases, hospital "beds" and the number of deaths were derived, and how these shaped the story reported to the public. We reflected on how our experience of numbers such as these changed when the pandemic touched our own lives or those of our loved ones.

Students then also reviewed and evaluated infographics such as the daily updates released by the National Department of Health, which reported cumulative daily figures from the outbreak. Simple details of presentation could serve to obscure key issues, such as the rate of growth of the pandemic, while highlighting a "horserace" between provinces. Students proposed alternative modes of using visuals and multilingual strategies to communicate key quantitative information to the public.

We also studied the far more complex dynamic "dashboards" (such as those provided by mediahack), which allowed the public access to a wide range of fast evolving indicators. While these allowed more user control and communicated a commitment to transparency, students explored how much domain or statistical expertise the visualisations assumed and what prior knowledge these tools required from the public.

Local case studies of reporting by eNCA and the Mail and Guardian gave us opportunities to explore some key challenges to data journalism during a pandemic. We used these case studies to underscore the need for numeracy and fact-checking and to highlight the limits of data journalism. In particular, students were alerted to the danger of journalists developing projections and models without the requisite epidemiological expertise, and the challenges of communicating disease modelling and scientific uncertainty to the public without sensationalising or minimising dangers that might lie ahead.

# Audiocast - Journalists on Remote Reporting

Our multimedia production teaching team next developed an online module to support students with their first assignment - to individually produce a multimedia "Life Under Lockdown" piece utilising remote journalism practices. As part of this module, the team brainstormed the development of an original audiocast as a way of connecting journalism students to a community of practice of working journalists with first-hand experience of the skills needed to practice remote journalism during a pandemic. We were able to involve various South African journalists, working on different platforms and in different fields, who generously shared their tips and experience in remote reporting.

The 21-minute audiocast that resulted is packed with valuable information for practicing and budding journalists - as well as anyone doing remote research, conducting interviews, recording Zoom meetings, gathering or curating video stories or using social media platforms. We were privileged to have the following highly respected journalists respond to our call for contributions: Yusuf Omar (co-founder of Hashtag our Stories); Stephen Horn (Politically Aweh); Shakirah Thebus (health reporter for Cape Argus); Emily Gambede (editor & journalist of Maverick Life); Elaine Mills (chief correspondent in Africa for Argus Media); Mia Malan (editor for Bhekisisa Centre for Health Journalism & Social Justice); and Justin Fox (editor of Getaway).

In the spirit of remote journalism, our contributors responded by voice notes to 3 questions: *How has technology changed your journalistic practice? What platforms do you use? What advice would you give on using those platforms for online/remote interviewing?* The audiocast was compiled and edited by Meghan Daniels and has proved a valuable tool for multimedia production students and students being trained in qualitative online research methods. The Journalists on Remote Reporting audiocast is freely available for sharing at the link below. Further research will explore students' experiences of this revised curriculum and how their storytelling and verification skills developed while documenting 'Life Under Lockdown'.

# Department/Unit:Department of Social Development (Social Work)Initiative:New Lessons Learnt from a Pandemic

Students of the Department of Social Development do practical internships in different organisations across Cape Town as part of the statutory requirement of the Bachelor of Social Work programme. They are required to practice individual work, group work and community work. The field practice programme is one of the flagship programmes of this department and there has been a rich history of longstanding relationships with hospitals, schools and non-governmental organisations (NGOs).

Nowhere on our undergraduate programme has the disruptive effects of the COVID-19 pandemic been more visible than the field practice courses. The field practice had to be temporarily suspended for the first time in the more than 80-year history of the programme and this affected both the students and placements, many of whom are reliant on students to offer social work services. The clients seen by the students cover every vulnerable group and the sudden suspension of the programme raised concern for the emotional well-being of these clients.

The theme of World Social Work Day in 2019 revolved around the importance of building human relationships and this was evident as academic staff and partners in the field had to collaborate even more closely to mitigate the fall out of the suspension of the field practice. The pandemic provided the opportunity to build new partnerships, strengthen existing ones and it has been profound to see how whether an academic, a teacher or social worker all the role players were united by two goals: firstly, to get the students to complete the year, but more importantly, how they could work together to ensure that the clients served by the placements could get the psychosocial support that they needed. Relationships had to be managed online which came with its own challenges but in the spirit of working together, which is embedded in the field practice, all is well.

The students are central to the academic project and their anxiety and own psychosocial concerns emerged in way that had not been seen before. The uncertainty of whether students could return to residence, whether organizations could host students and the ever-changing social landscape exacerbated the sense for students that their university life had changed beyond recognition. In response to the high levels of student anxiety, staff devised a project that dovetailed with other psychological services to ensure that students received the necessary support, as the aim was always to ensure that students could return to the field in 2020. Social work educators often teach more by what they do, as they model professional social work behaviour. This project thus had significant pedagogical value in that students could see how professionals can respond to a crisis. Another key lesson was that students received first-hand experience how important support is and thus how they in turn help their clients.

The students have now returned to the field and the vital service that they offer in organizations and by extension communities has become even more visible. The department has more than 120 students working in more than 40 organisations in Cape Town and they are offering individual counselling, running groups and community projects. As one of the partners from an NGO said: "*There is a lot of work and the students are wonderful*". Another agency working with the elderly indicated "*It was a great pleasure to have the students at …. and of what I gathered from the residents, they enjoyed the sessions with the students, and it was good to talk about issues that were bothering them*".

Students are working extra hours to meet their academic requirements and are practicing in unchartered waters. From the wearing of masks when seeing clients to managing the rotational attendance of school learners, the COVID-19 pandemic has brought new opportunities for learning and offered students a crash course in working with large scale crises. The pandemic has brought to life what students have only read about before. The resilience of the students and their passion for their chosen profession has been inspiring and if the department, the students and organizations continue to work together, they can navigate this pandemic and be confident that they have produced social workers who can meet any challenge.

# Department/Unit:Department of LinguisticsKey persons:Emeritus Prof. Rajend Mesthrie

I am involved in two initiatives. Firstly, I am part of a team of researchers writing a report to be submitted via the Gauteng Provincial Office of the Premier to WHO (World Health Organisation), evaluating the Gauteng Provinces response and readiness for a pandemic such as COVID 19 now and into the future. The report is to have 7 chapters covering aspects of health management, economics, food security, education, and communication and compliance.

Secondly, I am responsible for Chapter 7 on communication and compliance, as chapter leader together with Prof Leketi Makalela of WITS (SARCHI chair in Multilingual Education). While communication and language are typically taken for granted in everyday life, they are the essential oils of human action and interaction. If we take ourselves back to the 14<sup>th</sup> Century in the terrible years of the Plague (the so-called Black Death in Europe and Asia), we would see a world in which communication was very localised. This was a world before printing, let alone radio, telephone, tape recordings and of course centuries before modern affordances of computer, cell phones, internet and zoom. Suffering was thus worsened by lack of understanding and communication in the unfolding tragedy of the times.

The current chapter is meant to evaluate the effectiveness of (a) the use of modern technology in coping with the crisis, (b) communication across provincial government departments and (c) of communicating with the general public, especially those lacking the resources associated with modern technology and whose range of multilingualism might not include a full command of formal English. We are still in the process of interviewing government officials of the province and of community leaders and members of the public before presenting a final report by the end of 2020.

Finally, on the more academic side I have been reflecting on the effects of COVID on the human lexicon of endurance and suffering. Aside from being asked to review submissions to journals on this theme, I was invited to be a part of a team headed by SOAS on studying language innovation in the pandemic in African languages.

I have a short preliminary reflection in the *SA Journal of Science*, which I include here with their permission (the article was also publicised and posted in full on the UCT website). SOAS in fact used this article as part of their motivation and proposal for funding.

# Department/Unit:Centre for Social Science Research (CSSR)Initiative:Responses to the COVID-19

The various units comprising the Centre for Social Science Research (CSSR) responded to the challenges arising from COVID-19 in multiple ways. Whilst most fieldwork was suspended, CSSR researchers contributed to research and public debate around the effects of COVID-19 and appropriate policy responses. Researchers have written a steady stream of online articles (for sites including <u>GroundUp</u> and the <u>Daily Maverick</u>) as well as new Working Papers, have contributed to educational materials and are working on academic papers.

Elena Moore (head of the Families and Society Research Unit, FaSRU) published a series of online articles on the effects of COVID-19 on care and money within households. The <u>first article</u> looked specifically at challenges in households where someone received an old age grant. The <u>second</u> article examined the challenges that are faced in multi-generational households headed by women in employment. The <u>third</u> article looked more broadly at the family dynamics and challenges that are arising more broadly in multi-generational household. The series argues that different households will face unique challenges and that government support needs to include a wider range of relief at the household level to cater for the range of challenges that are experienced. Together with PhD student Nonzuzo Mbokazi, Elena wrote an <u>article</u> on how the COVID-19 pandemic will deepen existing glaring racial disparities among children.

As children's access to resources varies dramatically by race, this article looks specifically at the situation of children and informal worker households. In a further <u>article</u>, Elena highlighted how the state's provision of a R500 supplement to the Child Support Grant per primary caregiver might exacerbate tensions when there are multiple co-caregivers. Despite the welcome relief for many primary caregivers, especially those who have one child — this relief comes with a significant real and social cost when there are multiple children and multiple co-caregivers. Elena also co-authored two articles on issues relating to COVID-19 families and care. The first paper ('COVID-19 and the pivotal role of grandparents', co-authored with two colleagues at Glasgow Caledonian University) is forthcoming in a special issue on COVID-19 and care in *Feminist Economics*.

It examines the crucial economic and social contribution of grandparents, in the UK and South Africa, to our economic, social, and affective lives, focusing specifically on childcare provision and income support. The second article, forthcoming in *Inter*, looks at funerals and farewells in Ireland and South Africa during the pandemic.

FaSRU initiated a research project on how families and households have experienced the COVID-19 pandemic, whilst also examining how social protection is responding to and supporting vulnerable persons and households.

In the pre-COVID-19 period of 2018 and 2019 we examined the flow of care and money within and across over 140 households in Cape Town, Durban and Johannesburg. Using these data as a baseline, the new project examines how the negative impact of COVID-19 travels across households through the early stages, through a peak in July/August 2020 in South Africa, and during the recovery period in 2021. The research participants in these 140 households include men and women from diverse ethnic backgrounds, income groups and generations. A short round of interviews took place in late March and early April to investigate the needs and experiences of participants during stage 5 lockdown. The research provided the basis online articles. FaSRU has proceeded to interview participants in more depth, examining the experiences under successive 'levels' of lockdown, with supplements to social grants, children returning to school and many people returning to work. We have interviewed approximately half of the participants to date.

Alongside this, FaSRU is running a monthly e-seminar series on COVID-19 and family dynamics, starting in June. Our first seminar entitled 'Women, Work and COVID-19' invited research collaborators from Glasgow Caledonian Institute and looked at comparative outcomes for women and work during COVID-19 in South Africa and the UK. A second seminar hosted at the end of July, focused on government blind spots in support services during COVID-19 and will be engaging scholars at the Children's Institute. The third seminar, to be hosted in coming weeks, will invite scholars from the South African Fathering Project at Sonke Gender Justice and examine fathering and care during COVID-19. The fourth seminar organised for October will invite collaborators from Brazil and discuss the findings from the recent special issue on Care, Inequalities in the Global South (see publications below). Each of the e-seminars is recorded and available on our new website page: www.dailylives.co.za. The website showcases the new COVID-19 research study and prior research. Designed by Elena, it is a mechanism to share information and engage stakeholders in the research. The website is a potential resource for students, general public, funders, government or NGO employees, journalists and other academics. FaSRU continues to have monthly informal seminars and catch up sessions with all PG students.

Jeremy Seekings has written a series of online articles on the government's reforms of social protection. His <u>first piece</u> examined President Ramaphosa's original announcement (in April) of the planned increases in existing social grants and introduction of a new grant in response to the poverty resulting from the lockdown. Together with Lena Gronbach and Nicoli Nattrass, Jeremy wrote a second <u>article</u> setting out in detail how the new grant can be implemented, learning from the recent Namibian experience in introducing an emergency grant. A <u>third article</u> examined the delay in rolling out the new grant.

A <u>fourth article</u> focused on feeding schemes, arguing that the national government had comprehensively failed to feed the poor during the lockdown. Another article (on  $3^{rd}$  July) showed how different government departments tried to 'pass the buck' rather than accept responsibility for delivery failures. Jeremy also contributed a report to the successful court case brought by Equal Education against the Minister of Basic Education, that led to the High Court ordering the Minister to resume school feeding. Lena Gronbach also wrote an <u>online article</u> on the PostBank's role in delivering social grants.

The first CSSR Working Paper – <u>WP 451</u> – related to the pandemic was a study completed in late April (by Sydney Johnson, Remy Reya and Julia Ilhardt) of some of the options for social protection reform facing the South African government. Jeremy's research on feeding schemes and social grants respectively was published in full in July, as CSSR Working Papers <u>455</u> and <u>456</u>.

Jeremy and Nicoli (Nattrass) wrote an article on the politics of COVID in South Africa for the *Journal* of *Democracy* ('South Africa's Lockdown Misfire', 31,4, October). Lena and Jeremy have both been involved in assessing and analysing social protection responses to COVID elsewhere in Africa.

The Accelerate Hub, headed by Elona Toska, collaborated with Parenting for Lifelong Health, the World Health Organization, UNICEF and other international partners to produce a set of <u>6 one-page</u> <u>tips for parents</u> on how to cope with the challenges of parenting during the COVID-19 crisis. These 'COVID-19 Parenting tips' cover planning one-on-one time, staying positive, creating a daily routine, avoiding bad behaviour, managing stress, and talking about COVID-19. They are being translated into more than 100 languages and an SMS delivery platform is being developed.

Guy Lamb - the director of the Safety and Violence Initiative (SaVI) - published an Op Ed with News24 titled 'Fear and Policing in the Time of COVID-19'. In this, he discusses the dynamics behind the aggressive and abusive behaviour of some of the South African security forces during the lockdown period. Guy also participated in a number of live radio broadcasts (such as 702 and Channel Afrika) and participated in a live TV interview (ENCA) on crime and policing during the COVID-19 lockdown. SaVI also manages a prominent web portal on violence prevention in South Africa (in partnership with the Civilian Secretariat for Police). The most recent SaferSpaces newsletter specifically focused on police and violence prevention in relation to the COVID-19 lockdown regulations.

Shortly after the lockdown was initiated, Rebecca Hodes (ASRU) joined a volunteer team of UCT researchers to conduct case and contact tracing in support of the Western Cape Department of Health's Covid-19 Emergency Response. She worked mostly with Amharic-speaking refugees living in the Western Cape. Rebecca published an online <u>article</u> on 'Bad medicine: the past and present toxic "cures", reflecting on the histories of toxic healthcare promotion by political officials and scientists in the United States and South Africa. She also contributed to the Department of Social and Behavioural Sciences, Faculty of Health Sciences, Fieldnotes series on <u>COVID-19: Collective Experiences During a Global Pandemic</u>. Rebecca was interviewed on Cape Talk about <u>anti-vaccination myths</u> on 1 June 2020.

<u>ASRU</u> researchers presented work at the COVID-19/IAS virtual conference in July, including work on pictograms to promote public health in the COVID pandemic (see <u>Viral Visuals.pdf</u>). Working together with pharmacists based within UCT's Faculty of Health Sciences and at Rhodes University, ASRU adapted the ART-adherence pictogram to support medicines-taking among a wider, global audience, and across social media platforms.



Figure: Iteration of a COVID pictogram to promote medicines-taking and public health within contexts of high communicable and non-communicable disease endemicity

Hodes is currently collaborating with the International Treatment Preparedness Coalition to establish and implement Community Treatment Observatories which will capture and and analyse data on access to essential medicines and healthcare services for people living with HIV and TB in the era of the COVID-19 pandemic, in the countries of South Africa, Malawi, Sierra Leone, Nepal, India, Indonesia, Ukraine, China, Guatemala and Uganda. Preliminary data on this research is available <u>here</u>.

Department/Unit:	Institute for Humanities in Africa (HUMA)
Key persons:	Divine Fuh
Initiative:	Corona Times: HUMA's Public Engagement Blog (www.coronatimes

During this period of #uncertainty, anxiety, #suffering and death, Corona Times, a platform where #social sciences and #humanities scholars worldwide converge to offer humble and valuable contributions to understand the #covid19 #pandemic is launched. The platform is a public engagement project of HUMA, the Institute for Humanities in Africa, University of Cape Town, in collaboration with academics at the University of Agder (Norway), Nordic Africa Institute (Sweden), Vassar College (New York), and Karolinska Institute (Sweden). The blog's advisory board is drawn from institutions across Africa, Europe, Asia, North America and Latin America.

net)

*Corona Times* offers detailed, rigorously researched, ethical expert commentary that humbly explores ways to grasp the various facets of the current moment, and proposes ways forward and evaluates social, economic and public health interventions on multiple temporal scales, from the short-term to the long view. In this time of social distancing and necessary physical withdrawal from "business as usual", we also hope to go "out there" with our minds and spirits, to nurture the intellectual conviviality and human companionship that we need to fight the pandemic and get through the other side stronger and more resilient.

Team: CHIEF EDITOR - Vito Laterza, University of Agder, Norway & University of Johannesburg, South Africa. EDITORIAL TEAM: Divine Fuh, University of Cape Town, South Africa; Mwenya Mubanga, Karolinska Institutet, Sweden; Patience Mususa, Nordic Africa Institute, Sweden; Lauren Paremoer, University of Cape Town, South Africa; Louis Philippe Römer, Vassar College, US. COPYEDITORS: Carli Coetzee, Editor of the Journal of African Cultural Studies; Crystal Powell. ADVISORY BOARD: Olumide Abimbola, German Corporation for International Cooperation (GIZ), Germany; Parfait Akana, Muntu Institute/University of Yaounde II, Cameroon; Tomohiro AKIYAMA, Sophia University, Japan; Julie Soleil Archambault, Concordia University, Canada; Noman Baig, Habib University, Pakistan; Antonadia Borges, University of Brasilia, Brazil; Fanny Chabrol, Centre for Population and Development (CEPED), France; Rama Salla Dieng, University of Edinburgh, United Kingdom; Ignasio Jimu, National Council for Higher Education, Malawi; Carl Manlan, Ecobank Foundation, Togo; Jordanna Matlon, American University, Washington DC, USA; Beatriz Mesa, International University of Rabat, Morocco; Aïdas Sanogo, Centre Universitaire de Manga, Burkina Faso; Nelusha Shunmoogam, Malaysia; Bian Simei, Sichuan University, China; A.R. Vasavi, PUNARCHITH Collective, Karnataka, India; Rachid ID YASSINE, Université Gaston Berger, Senegal; Henri-Michel Yéré, University of Basel, Switzerland.
Department/Unit:	Institute for Humanities in Africa
Key persons:	Divine Fuh
Initiative:	Feminist Alternative for (post) COVID-19 Engagements in Africa

Co-application and co- Investigator for awarded OSIWA grant for project "Feminist Alternatives for (post) COVID-19 Engagements (FACE) in Africa: Contributions from Social Sciences and the humanities", for implementation in 2021. This Pan African project will critically analyse the Feminist Political Economy of the Covid-19 crisis by asking: *To what extent does an intersectional analysis of the pandemic allow for a more accurate gender-transformative evidence which can influence policy*?

Team: Dr. Rama Dieng [Team Leader] (University of Edinburgh, UoE); Dr. Divine Fuh ([Co-investigator] University of Cape Town - UCT) South Africa, and Prof. Mame Penda Ba [co-investigator] (University of Gaston Berger -UGB) Senegal.

Department/Unit:	School of Education
Key persons:	Patti Silbert and Tembeka Mzozoyana
Initiative:	Schools Improvement Initiative (SII), Schools Development Unit (SDU)

### Introduction

School closures, confinement, and psychological distress as a result of COVID-19 have had serious consequences for all South Africans. The experience of isolation, economic strain and loss has resulted in heightened anxiety, particularly for South African youth. The psychosocial impact of COVID-19 has been further intensified by 'psychological neglect'– the reality of children and youth not being encouraged to express their emotions in the face of evident trauma.

### The SII and psychosocial wellbeing

As a vehicle for extending UCT's engagement in schooling, the SII seeks to improve the quality of teaching and learning through a commitment to long-term partnerships with schools and ongoing community engagement. One of the SII's key programmes is the Schools Wellness Centre (SWC), operational in all of its eight partner schools.

In collaboration with Metro East Education District and the Khayelitsha-Eastern Substructure (Metro District Health Services), the goal of the SWC is to develop a model of excellence in learner wellbeing by helping learners build resilience and self-esteem through developing voice and agency. Tembeka Mzozoyana, a social worker coordinates the SWC, offering psychosocial support to learners, parents and teachers, and running programmes to address issues such as GBV, substance abuse, anxiety and depression. Each year she supervises on average fifteen third-and fourth-year social work students who are placed in the SII partner schools to undertake their professional practice while extending and deepening the work of the Centre.

### "My South African Pandemic Story"

In response to the growing need for psychosocial support as a result of the pandemic, and in collaboration with Dr Gilbert Kliman (USA) and Jennifer Davids (UK), we embarked on an initiative to support learners between Grade R and 12 through the development of three interactive, age-appropriate workbooks. Dr Kliman, a world expert on the emotional and psychological effects of large-scale situational crises, is a child and adolescent psychiatrist and psychological. He is Medical Director of the Children's Psychological Health Center (CPHC), San Francisco. Jennifer Davids is a child and adolescent psychoanalyst in London and Director of the Africa Projects of the CPHC.

The purpose of the workbooks is to support children and adolescents in facing trauma and loss through the construction of narrative, oral and visual symbolisation and the involvement of their teachers or 'adult helpers'. Through 'telling their story', young people gain a sense of personal contribution to a historic event, rather than being helpless and silent.

The workbooks are based on Reflective Network Therapy (RNT), (Kliman 1985), a methodology that sees the child as an integral part of a network, which includes peers, teachers, family members and others with whom they interact. Unlike conventional therapy in which the child is removed from their classrooms for the purpose of one-on-one therapeutic interaction, RNT takes place *within* the classroom situation.

Research undertaken in countries across the world has shown that the use of guided activity workbooks based on RNT for children and adolescents in helping them face disaster honestly, rather than this being avoided, has helped decrease post-traumatic symptoms. The absence of adult leadership or initiation of discussion has been shown to be harmful in situations of crisis.

The intervention is currently in the process of being implemented in the SII partner schools by third and fourth-year social work students ('adult helpers') as part of their community work project. Over 600 learners in Grades 4 and 8 have been reached to date. Pre-intervention screening tools have been completed and, following the completion of the workbooks, learners will complete post-intervention questions for the effective monitoring of impact. Verbal responses from learners and students suggest that the workbooks have been valuable in encouraging discussion and self-expression:

"One learner said [the book] helped her realise things about herself she didn't know and most of the learners agreed. We talked a bit more about Corona and the effects. We spoke about people losing their jobs, staying at home the whole day with their siblings and parents, and how they're glad they're back at school. You know it's made learning better for them. So it was quite positive and they were very open, some even shared their own personal struggles. So I think the book is helping them in that way ..." (4<sup>th</sup> year social work student).

While it is too soon to directly link the intervention with improved learner wellbeing, we believe that the workbooks have created a space for learners to engage honestly about issues related to the pandemic, thereby providing a tool to normalise feelings and experiences. Going forward, the workbooks will be adapted to a 'non-COVID' context, so that learners can continue to use their voices to develop agency and self-worth.

# Department/Unit:Department of Portuguese Language and LiteratureInitiative:Pandemic-Pedagogy and Didactics for Portuguese

The Portuguese Language and Literature section (Humanities - School of Languages and Literatures) teaches Portuguese and Lusophone studies at undergraduate level and BA Honours. The section offers in-person courses throughout the academic year. Since UCT activities were suspended in March due to the outbreak of covid-19 in South Africa, Portuguese section staff has been working to adjust classes to the Emergency Remote Teaching (ERT) environment. In-person language courses depend almost entirely on face-to-face contact between lecturer and students to develop language oral skills, hence the change to the current ERT context presented challenges and demands that had not been experienced previously, nor had it been part of any previous lesson planning.

The section took full advantage of UCT's learning management system – Vula, which allowed the staff to create and develop teaching and learning pathways for all courses. For the undergraduate courses, lesson pages have been created on Vula and tasks have been posted to enable students to study the language remotely. The tasks follow the same teaching methods that are used for in-person classes, but modifications in strategies have been made in order to provide students with accessible and meaningful class activities and materials.

Forums have been created in each lesson page in order to give students opportunities to engage with each other in Portuguese and to have class discussions about the issues studied in each lesson page. In addition, the lecturers have recorded and posted audio clips of task instructions, questions, and new vocabulary to assist students with listening and speaking skills. To further assist students with speaking skills, classes have met every week for conversation sessions on Zoom.

Lecture videos and/or PowerPoint presentations with audio notes have been created for grammar explanations, with online language games to practice vocabulary.

Different kinds of class materials, such as texts, videos and audio clips have been provided to students via Vula according to the tasks laid out on each lesson page. Considering the socio-economic inequalities among our students, as well as their unique responses to the current situation, all efforts within the Portuguese section have gone towards creating equal opportunities by using resources provided by UCT, such as zero rating agreements and data bundle for each student, in order to make all class activities and materials accessible.

The current COVID-19 and ERT context has demanded significantly more time and attention from the staff towards students' psychological, safe, social, and learning needs. At times it seemed that we would have fallen short if not for the cohesive and supportive work environment that has been created. The current situation has highlighted an ongoing struggle in language teaching, which refers to balancing various learning needs in a class with significant ability differences. The staff has had to adapt teaching strategies as well as provide students with effective means of communicating electronically so that they can easily communicate their needs and inquiries in order to receive information about the course.

Department/Unit:Department of Social DevelopmentInitiative:Intervention Action Plan for Street-Based Dwellers & High-Risk SubstanceAbusersAbusers

The nationwide lockdown that was implemented in South Africa in response to the COVID19 pandemic, resulted in a significant number of desperate calls from the Homeless Sector for urgent SUD (substance use disorder), GBV (gender based violence) and trauma intervention. This need and gap in SUD and GBV services for the homeless and high risk users necessitated a Consortium of Civil Society Organisations specializing in SUD's and Homelessness, the UCT Department of Social Services and the Chair of the Western Cape Substance Abuse Forum to develop a Trauma informed Substance Use Disorder and GBV Crisis Intervention Plan of Action for implementation at the Paint City Safe Space, housing 120 people and the Haven Shelter housing 80 people, both based in Belville. Over the months of implementation, the plan turned into a Blueprint for possible role out Provincially.

### **Consortium Role Players:**

- UCT: Department of Social Development: WCSAF Executive, Capacitation of Professional Staff, Co-development of SUD/GBV Blueprint
- **STAND:** WCSAF Executive Demand & Harm Reduction, Trauma & GBV Counselling Project Management, Co-development of SUD/GBV Blueprint
- TB/HIV Care WCSAF Executive, Harm Reduction, Co-development of SUD/GBV Blueprint
- **SANPUD:** WCSAF Executive, Capacitation of Professional staff, Co-development of SUD/GBV Blueprint.
- Cape Town Drug Counselling Centre: WCSAF Executive Demand Reduction counselling, Codevelopment of SUD/GBV Blueprint
- Western Cape Street People Forum: Co-development of SUD/GBV Blueprint
- WCSAF Chair: Ministry: Department of Social Development: WCSAF Exec.

### Key Objectives of The Blueprint:

- The intervention action plan framework, which includes a Standard Operating Procedure and a referral pathway, has been drafted to address SUD & GBV within the street-based people and high-risk user population.
- To reduce the physical pain and physiological impact of withdrawals from heroin and alcohol use disorders.
- To improve the physical and psychological wellbeing of people who use substances & survivors of GBV during lockdown and beyond.
- To provide medical, Opiate Substitution Therapy and psychosocial support for the street- based dwellers.
- To prevent the spread of HIV and Hepatitis-C

### **Interventions & Activities Completed:**

**Trauma Services** (including UCT sourced Post Graduate Volunteers - all interventions at safe spaces are provided with a trauma informed approach)

- GBV trauma informed intervention: individual counselling, and linkages to resources such as SAPS, Thutuzela Centres etc.
- Women GBV group sessions
- COVID19 & TB testing
- UCT: Trauma informed Social Work training and Assessment and management of Suicidal Risk Behaviours

### SUD & GBV services:

- Psycho-social support: Individual counselling sessions
- Psycho-social support: conjoint counselling sessions / group work (i.e. Motivational Interviewing).
- Community-based Treatment programme for SUD's
- Opiate Substitution Therapy (OST) services: Medical management & Psycho-social support by OST team
- Integral recovery activities
- Psycho-social education (including pre-contemplation and contemplation groups).
- All services rendered on a continuum of care up to aftercare and reintegration (i.e. ensuring sustainability).

Department/Unit:	Schools of Education
<b>Contact Persons</b> :	Patti Silbert and Cally Kuhne
Initiative:	Schools Development Unit

The Schools Development Unit (SDU) focuses on education transformation through teacher professional development qualifications and approved UCT short courses, school-based work, materials development and research within the framework of the national curriculum in Mathematics, Science, Literacy/Language and Life Skills from Grade R to Grade 12. The SDU promotes an effective school system in South Africa that is characterised by safe and innovative schools with inclusive and strong systems of governance and management and that has dedicated, confident and competent teachers ready to take on the challenge of educating young people for the 21st century.

Building teacher efficacy lies at the heart of professional engagement. This involves, broader curriculum and whole-school improvement. The SDU has been involved in a number of community-based social responsiveness projects in collaboration with a range of strategic partners, including the WCED rural and urban education districts.

The COVID-19 context has impacted significantly on all levels of the SDU's engagement with schooling. Learners, particularly from poor and vulnerable communities have been most disadvantaged by the national and provincial education department efforts to provide online support and teaching materials for home learning. The majority of homes in the Western Cape have not been able to access these online resources due to the lack of adequate computer/phones, network and wifi/data. This has sharply amplified the inequalities in our society, and the urgent need at an educational level to address the gaps that exist in our schools.

The WCED established an '@Home Learning Initiative' in July 2020 to address the crisis in educational provision. A 'Whole of Society Approach' (WOSA) was adopted to set out the WCED Curriculum Vision on how all sectors of WCED including NGOs and HEIs can work together to address the challenge of our most vulnerable learners. After piloting the initiative in the Western Cape, the longer-term objective is to provide a countrywide COVID-19 and post-COVID model for self-directed learning.

The shift to an 'at home' learning approach means a fundamental reimagining of education in ways that are immediately beneficial to teachers, families and learners from under-resourced schools in the short term, and that are sustainable over the long term. This requires rebuilding practices at a structural and systemic level that make possible these new innovative changes, that include online as well as hardcopy materials. Building relevant organisational and structural capacities needs to take place at the level of NGO/service providers, WCED and the schools to ensure that the work is coherent, streamlined, embedded and aligned. A 'hybrid' approach sees 'at School' learning taking place in tandem with 'at Home' learning. This requires clear intentions regarding purpose, process and end goals.

Support for learning at home is likely to be successful and sustainable when all aspects of the system recognise the importance of the school reaching out to parents and bringing them closer to the learning of children. This requires new partnerships, shifts in priorities and perspectives, and in many cases a redefining of traditional roles. Additional capacity to support at home learning, such as the involvement of youth interns offers a model which provides immediate solutions to the challenge of reaching families at homes, however this approach needs to be integrated into broader systemic change to ensure sustainability.

A number of working groups were established to operationalise the objectives of the @Home Learning Initiative in preparation for the pilot which is to take place from November 2020 to March 2021. The authors are participating in these forums and have contributed to strategic discussions and materials for consideration. These include Foundation Phase curriculum and psychosocial resources. The @Home Learning Pilot will be rolled out in the Cape Winelands in 18 Quintile 1 - 3 schools. The Department of Economic Development and Tourism (DEDAT) is funding the 61 interns, all of whom are matriculants, currently unemployed, as part of the Western Cape Government Year Beyond Programme (YEBO). The interns will mediate the materials on the ground, with a focus on at home learning for Grade R – 4 learners who are currently not attending school. The interns will be placed across three NGOs: Khula Development Group, Hope Through Action and Love To Give.

The focus of the pilot is Language, Mathematics, and Psycho-Social support. The two main groups of learners who will receive support are learners currently attending school who need encouragement at home during their 'off days' to complete all homework assignments; and learners who are currently NOT attending school from the eighteen designated schools in the pilot.

A limited selection of material has been made available for the pilot, including the SDU's interactive workbook "My South African Pandemic Story" which supports learners in addressing emotional and psychological distress as a result of the pandemic. Following the pilot, the WCED intends rolling out the initiative to the rest of the Western Cape.

# Department/Unit:Accelerate HubInitiative:COVID-19 Digital Parenting Interventions

Parenting for Lifelong Health (PLH) is a suite of open source parenting programmes launched to promote positive child-parent relationships in low-resource settings. It was developed and rigorously tested through a collaboration between WHO, UNICEF, the Universities of Cape Town and Stellenbosch in South Africa, Clowns and the universities of Oxford and Bangor in the United Kingdom. These programmes have been tested through randomised controlled trials and have been found to yield very positive results. PLH programmes are currently being scaled up in over 25 low- and middle-income countries across Sub-Saharan Africa, South-eastern Europe, Southeast Asia, and the Caribbean.

These programmes were initially developed to be delivered as a face-to-face in-person group sessions. But with over a billion children out of school or childcare due to COVID-19, families across the world are struggling to care for their children. Since several reports have shown that, under the stress of lockdown, violence against children (often from parents or other caregivers) escalated around the world, there was a clear need to provide support to parents in a format that did not require in-person meetings.

In response to this, our team developed online parenting resources which were rapidly translated into over 100 languages (<u>https://www.covid19parenting.com/home</u>). Within 8 months, over 86 million families in 180 countries were reached with these parenting resources. In March 2020, worksheets were endorsed by all collaborating agencies, and released onto the COVID-19 websites for the WHO and UNICEF, alongside a letter in <u>The Lancet</u>.

These resources then led to other novel interventions, so that we now have three types of parent support available and being studied for effectiveness:

- i) The original COVID-19 online parenting resources, being disseminated globally;
- ii) online interactive parent support groups (ePLH) in six countries;
- iii) COVID-19 digital playful parenting in South Africa.

### Online interactive parent support groups (ePLH);

ePLH is an online parenting support group programme developed for parents of children aged 2 to 17 years. It is being pilot-tested between September 2020 and March 2021. The programme aims to reduce child maltreatment while improving parent-child relationships and child well-being. ePLH adapts the PLH programmes into an online parenting intervention programme delivered via online text messaging platforms such as WhatsApp or Viber (ePLH). This group-based online intervention will provide evidence-based parenting information and interactive learning experiences via group-based online discussions using text, audio, and visual messages. ePLH is using a participatory citizen science approach to engage with people through digital technology to support participatory group learning, information gathering, and capacity building to co-produce knowledge and feasible solutions to improve individual and family-level behaviours towards child abuse and violence prevention, health and well-being of families. It is being tested in six countries: South Africa, Malaysia, Moldova, Montenegro, North Macedonia, and the Philippines.

### COVID-19 digital playful parenting in South Africa

The coalition of partners have been developing and piloting innovative human-digital modalities of playful parenting programmes. These include 1) parenting apps, 2) online parenting support groups, 3) interactive parenting text messages, and 4) media-based interventions. These new hybrid platforms are accessible to those with a range of digital access, adaptive to different cultures and contexts, and scalable to meet population-level demand. They are all open access (with open source code) and are being designed to be easily modified to local contexts by governments, NGOs, and local organisations.

We are working intensively in collaboration with the South African National Department of Social Development (DSD) and UNICEF to lay the groundwork for a national scale-up of human-digital PLH parenting programmes in 5 provinces (Eastern Cape, Free State, Gauteng, KwaZulu-Natal, and Northwest). We are also working to complement Mothers2Mothers effort in delivering a human-digital hybrid approach of PLH as part of a large-scale USAID-funded sexual risk and HIV-prevention initiative in Mpumalanga. Other partnerships seek to disseminate COVID-19 Parenting resources with media-based strategies, including UNICEF's Internet of Good Things, the Children's Radio Foundation, and the South African Broadcasting Corporation (SABC).

COVID-19 may have shut many things down, but to Parenting for Lifelong Health, it's been a spur to creativity, and the goal of reaching all parents everywhere with parenting support. Producing a multilingual caregiver guide during school closure with C-19 People's coalition ECD and Schooling working group Xolisa Guzula and Carolyn McKinney (School of Education)

A huge challenge in education, and in our field of language and literacy education in particular, is the stark inequality in the system. The majority of our learners are caught up in a school system that is failing them. The beginning of level five lockdown saw the closure of schools and Early Childhood Development (ECD) centres. National and provincial departments of education began circulating guidelines on how schools and learners could continue to follow the national curriculum via online learning and the use of digital resources.

As members of the bua-lit language and literacy collective (www.bua-lit.org.za), we were concerned at the lack of recognition that 'online' learning would exacerbate the inequality that already exists in our bi-modal system of education, and at the lack of provision of any low-tech or print resources or guidance for caregivers. Educational resources made available online were provided only in English and Afrikaans.

We were also concerned by the strong deficit positioning of homes of the poor as places where 'no learning' can happen in news articles that followed on re-opening or keeping schools closed.

In the absence of a provincial or national government coordinated plan to support parents, we joined the ECD and Schooling working group of the Covid-19 People's Coalition and Xolisa led the project for the creation of a multilingual caregiver guide. The guide would combine public health information and messaging about COVID-19 with advice on how to support children's learning at home, in low resource settings, from preschool to high school. We created two guides: a longer guide in English for sharing on online platforms and a short guide in 11 official languages, that would be printed by NGOs working with communities for their constituencies.

The highlights in the creation of the caregiver guide included the collaboration among 23 NGOs and individuals, some of them from universities, with a wide range of different expertise (e.g. early childhood development; early literacy; mathematics and science education; history education; study skills; translation and graphic design). All donating our time, and led by Xolisa, we worked collectively and non-hierarchically to develop the content and to edit as well as copy-edit the guide.

A further highlight that took substantial effort and co-ordination was translation of the document into all 11 official SA languages. But the challenge was in finding a better way to describe the corona virus in African languages as calling it iKhorona or iKhovidi was insufficient to develop people's understanding of what the virus is, even though we have appropriated this terminology now. It was also misleading to tell people not to touch their faces as they did not quickly make the connection of how the virus can be passed from one's hands to face. We felt that it was better to be specific and tell people not to touch their eyes, nose and mouths as the virus enters through these openings.

The guide is available here in 11 languages <u>https://drive.google.com/drive/folders/1Zgoo-nlpZLWWwwyzUq2exZXdxciKcZbe</u> and at <u>https://c19peoplescoalition.org.za/home-learning-support/</u>. The production of the caregiver guide is an example of what collectives can achieve, including collaboration of academics and civil society organisations, in times of crisis. But as with other faultlines of inequality in South Africa, the education crisis has widened during the pandemic.

This crisis can only be solved through collective action from civil society, and communities together with action, and most importantly resourcing, from the state.

Department/Unit:	Accelerate Hub
<b>Contact Persons:</b>	Sara Matchett, Yaliwe Clarke, Phoebe Kisubi Mbasalaki
Initiative:	COVID Waarheid/COVID Truth – A Theatre Production in a Time of Crisis
Following the outbreak	of the COVID-19 pandemic, a collaborative research project involving the
African Gender Institu	te, the Centre for Theatre, Dance and Performance Studies (both in the

Humanities Faculty) as well as the Sex Worker Education Advocacy Task Force (SWEAT – an NGO based in Cape Town), produced a performance titled 'COVID WAARHEID / COVID'S TRUTH' that was released on 10, 11 and 12 September 2020.

The production was part of an international collaborative research project (titled GlobalGRACE) that employs arts-based practices and curatorial research to investigate the production of cultures of equality and enable gender positive approaches to wellbeing. In South Africa, participatory theatre and performance is used to explore gendered, sexed, racialised and classed inequalities amongst sex workers in Cape Town.

This has entailed the creation of a Sex Worker Theatre Group who are trained in theatre performance in ways that fosters healing and well-being among sex workers by paying attention to how spaces of labour, the devaluing of sex worker's work, discriminatory laws, violence, and ill-health affects sex workers. The project is a combination of research and service.

Due to the COVID-19 pandemic and restrictions related to lockdown, a training module on spoken word titled 'Writing the Self' could no longer be conducted face to face. The module was put on hold for 3 months. During this time, project team leads consulted with theatre-maker Jason Jacobs and decided to change the training methodology so that theatre performers could receive the training virtually. The revised module entailed using WhatsApp to create a collective script from different autobiographical points of view. WhatsApp was used as a container for the digital archiving of stories written from spaces of isolation. In collaboration with facilitators Eddie Newman and Babalwa Makwethu, sex workers were encouraged to centre their experiences of living through COVID-19. A WhatsApp group comprising of trainers and performers was created that was used to store and map the online workshop process as well as offer a structure for a digital copy of the final script.

One of the challenges of this shift was an ethical one. How could the project balance three seemingly conflicting ethical considerations - health, safety, and hunger?

The revised training module began in July 2020 when the numbers of COVID-19 infections and deaths in South Africa were still rising. Even though lock down regulations were easing up, economic activity was still low and income from sex work was either very low or non-existent. Members of the sex workers theatre group thus relied more heavily on the project for income and food than prior to lockdown, so starting the training module was central to easing their immediate hunger.

However, the new online training methodology required that each sex worker was provided with a new cell phone and this compromised the safety of sex workers who lived in unsafe and precarious spaces where they were likely to be attacked by people who wished to forcibly take their cell phone. Fortunately, as restrictions eased in August, the project was able to find a safe physical venue that some of the sex workers could meet at which reduced the risk of phones being stolen for some, especially those who lived on the street. Though this may have reduced risk of theft, there was still an increased risk of infection with COVID-19 due to physical contact between them and facilitators during training sessions. The project thus contemplated how health and safety could be balanced with the need to relieve hunger by providing much needed food and money to sex workers in the theatre group.

This dilemma especially applied to sex workers who lived on the street. Another concern was how the revised training module could teach embodied practices in disembodied ways. The project team imagined the shift to a virtual training platform limited options for healing through touch and play that an embodied training method would have offered. However, the way that the trainer framed the exercises and provocations touched participants emotionally. The re-telling of traumatic experiences (that centralised inequality) offered a version of 'embodied healing' for members of theatre group.

The COVID-19 pandemic has illuminated the centrality of virtual platforms in re-imagining theatre and performance arts. We found that Whatsapp was a viable platform that afforded theatre group members an experience that connected them to material sustenance, community, and a sense of emotional ease. It is imperative that universities take the lead in thinking of radical virtual pedagogical tools that can also transform the lives of the most vulnerable.

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# Faculty of Law

### **Commercial Law**

Departmental response: HOD: Prof Debbie Collier

• Initiative, its description and its purpose. Implementation of ILO Convention 190 (Eliminating Violence and Harassment in the World of Work)

• Is your practice research, teaching, service or innovation focused or a combination of these? A combination – research that has informed service and in turn will influence teaching and involvement in the REC.

• Brief description of your practice (be it research, teaching, service or innovation) and how your work responds to the COVID-19 context"

Based on research for a publication on C.190 (co-authored with Monique Carels) raising concerns regarding a draft Code that was Gazetted in August 2020 by the Department of Employment and Labour, I was able to assist WIEGO (Women in Informal Employment: Globalising & Organising) in response to a request from the Community and Labour constituencies in NEDLAC for a legal opinion on a revised draft Code within the context of South Africa's international law commitments to implement C. 190. The work is not specifically responsive to Covid-19 context; however C. 190 highlights the importance of a gender-sensitive approach and the impact of violence (including domestic violence) and harassment against women, which the Covid context has exacerbated.

• What are some of your key insights and learning you have gained during this time? The need for agile, responsive regulation.

• Why is it important for universities to offer their resources in the time of COVID-19? Adequate legal advice is not always available.

• How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

Most project/s of the department are/ is ongoing.

### Labour, Development and Governance Research Unit (LDG) / LDG Research Unit

Unit Head: Dr Shane Godfrey

• Is your practice research, teaching, service or innovation focused or a combination of these? Research, limited teaching and involvement in the REC

• Brief description of your practice (be it research, teaching, service or innovation) and how your work responds to the COVID-19 context

Policy-oriented research into labour regulation and development in South Africa and southern Africa. We have taken on research that is specifically focused on the impact of COVID-19 on labour regulation and value chains, and have also unsuccessfully submitted proposals for further research on the impact of COVID-19 within the context of our research scope.

• If your practice is related to work that has taken place before COVID-19, how has it changed in the current context?

We have sought to incorporate the impact of COVID-19 into our research.

• What are some of the biggest challenges COVID-19 has made visible in your field? The biggest challenge has been funding and fieldwork, particularly fieldtrips outside of Cape Town. We had to cancel some fieldtrips and all other fieldwork we have managed to complete reasonably effectively via Zoom/Teams or telephonic interviews. Also participated in drawing up COVID-19 fieldwork protocols for the University and Law Faculty.

• What are some of your key insights and learning you have gained during this time? The extent to which fieldwork can be conducted virtually (and therefore more cheaply). However, this does raise new ethical considerations.

• Why is it important for universities to offer their resources in the time of COVID-19? Universities should be responding to social needs at all times, not just in periods of crisis. The response to COVID-19 should be a ramping of social responsiveness by universities. The challenge is to do this when there are huge demands academics through virtual or blended teaching, and when research endeavours are often mired in an inefficient university bureaucracy. Until universities structure themselves appropriately and establish streamlined and efficient bureaucracies, social responsiveness will be an add-on rather than a core function.

• How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

COVID-19 is having a short, medium and long-term impact, so it will be a direct or indirect part of all our research going forward, within the research scope of LDG.

### Intellectual Property Research Unit / IP RU

Director: Prof Tobias Schonwetter

• Initiative, its description and its purpose.

Open African Innovation Research (Open AIR) www.openair.africa (our current flagship project) Open AIR, the IP Unit's current flagship project, is a unique collaborative network of researchers spread across 22 African countries, Canada, and elsewhere in the world, answering two overarching questions: How can open collaborative innovation help knowledge-based businesses scale up and seize the new opportunities of a global knowledge economy?

□ Which knowledge governance policies will best insure that the social and economic benefits of innovation are shared inclusively?

Open AIR's primary goal is to uncover new insights about the balance between control over and access to knowledge. We aim to solve a problem at the heart of intellectual property (IP) and innovation policy: how to reconcile tensions between appropriation and access, excluding and sharing, and competing and collaborating. Our research is showing how knowledge-based businesses can capitalise on open collaborative innovation strategies.

Apart from our academic collaborators from all over Africa, we engage with the following external constituencies:

- □ High Tech Hubs and Maker Spaces,
- □ Small & Medium Enterprises,
- □ STEM educators,
- □ Informal Sector Innovators,
- □ Indigenous Knowledge Entrepreneurs,
- Domestic, regional and international law and policy-makers, and
- students.

We wish to point out here, however, that the Open AIR project is only one of our initiatives which involve social responsiveness components. This report will focus on this initiative; yet, other initiatives equally engage with non-academic constituencies - like, e.g., our efforts to build a new Centre for Law & Technology (and an associated LawTechLab) with dedicated outreach activities to non-academic stakeholders and our attempt to increase awareness about copyright law in South Africa through offering a free course to the general public, in collaboration with Harvard Law School and two dozen institutions from around the globe.

• Is your practice research, teaching, service or innovation focused or a combination of these? While the IP Unit is a research-focussed entity, most of our projects - including Open AIR - combine research, capacity building and teaching activities. And the Open AIR project in particular investigates innovation dynamics in the context of open and collaborative knowledge governance systems.

• Brief description of your practice (be it research, teaching, service or innovation) and how your work responds to the COVID-19 context

Through initiatives like the Open AIR project, the IP Unit promotes research, teaching and learning in IP through holistic, balanced and open approaches, in order to stimulate innovation that drives development. We develop our programs through dialogue, research, debate and capacity building, and exploit the naturally symbiotic relationship between our research activities and our teaching programs.

Among other things, we have responded to COVID-19 through:

Raising awareness about the problematic conflict between exiting IP protection frameworks and "new normal" activities and demands such as online/remote/digital learning (in conflict with copyright protection) and rapid vaccination production strategies (in conflict with patent law);

Engaging in law and policy processes which seek to mitigate such conflicts, eg through copyright reform or by adopting the WTO TRIPS Waiver proposal as put forward by South Africa and India in 2020;

□ Regularly reviewing and adjusting our activities and research priorities to ensure they sufficiently address the changes triggered by COVID-19.

□ Migrating to online platforms for team / network collaboration and to execute events previously planned as face to face events.

• If your practice is related to work that has taken place before COVID-19, how has it changed in the current context?

[captured in the answers to the following questions.]

• What are some of the biggest challenges COVID-19 has made visible in your field? The COVID-19 pandemic has exposed the general public to some of the challenges with our current IP protection frameworks which we have raised for many years, eg, that our copyright laws are not fit for purpose in the digital age (in particular in the context of education) and that overzealous patent protection system can create undesirable bottlenecks and supply challenges, particularly in developing countries like South Africa.

We also saw confirmed that unequal access opportunities in terms of access to digital technologies deepen existing inequalities in times when digital interactions replace what previously occurred offline. And as far as our empirical research activities were concerned, we – like many others – witnessed how social and physical distancing imperatives hampered or made impossible planned fieldwork.

• What are some of your key insights and learning you have gained during this time?

Despite the challenges of COVID-19, Open AIR made significant research progress since the beginning of the pandemic. While field research was largely halted, desk research continued apace and, in some cases, accelerated. Key research outputs produced by Open AIR during 2020 are captured on our website at: https://openair.africa/2020-annual-report-research-progress/ In broad terms, we have been working extensively to advance economic opportunities through inclusive inter-African trade, especially for women in business, science, technology, and innovation. Our researchers are also at the cutting edge of innovation policy globally, supporting and shaping the data collection and measurement practices of key international organizations. Yet we remain well connected to grassroots communities of innovators, especially innovators from marginalised groups like women in the informal sector and Indigenous and local communities. Our researchers are amongst the continent's, indeed the world's, leaders studying maker communities and innovation hubs. Together we are at the forefront of Africa's role in the fourth industrial revolution, influencing the laws and policies that will govern everything from digital agriculture to artificial intelligence.

Although everyone has been largely homebound, proactive communication and social media have been the glue that kept us together. Since the start of the COVID-19 pandemic, we have published voluminous, timely information on our website, and disseminated this knowledge through policy papers, scholarly publications, and popular events. The stories of our researchers' experiences have helped to overcome the isolation and aided in the resilience of the network. Africa's innovation in dealing with the pandemic was another theme. Some research emphasis was placed on interrogating the impact of COVID-19 in our field, and the results of this (unplanned) work are captured here:

### https://openair.africa/2020-annual-report-covid-19/

• Why is it important for universities to offer their resources in the time of COVID-19?

I can't see how COVID-19 has put into question the importance of universities for developing human capital, facilitating research and development activities, and put broadly, contributing to economic and social prosperity. Social responsiveness activities help mobilise and make more practically relevant the knowledge we generate – and if that knowledge also adequately responds and takes into account the (lasting) changes brought about by the pandemic, then the importance of universities for the attainment of many developmental goals and plans cannot be overstated.

• How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

The COVID-19 pandemic, while challenging in many ways, has not significantly altered the way in which we included social responsiveness elements into our research-oriented work. Our work typically transcends the realm of academia and our engagement with non-academic constituencies always enriched (and provided a reality check for) our activities. We will continue engage with non-academic stakeholders in that way and plan our projects and project budgets accordingly. What remains to be seen, however, is how COVID-19 has impacted our non-academic partners in a way that requires, for instance, adjustments of our research questions and focus areas. We will, no doubt, return to these questions when crafting future project proposals with our funding partners.

### Departmental information: Public Law

Democratic Governance and Rights Unit / DGRU Director: Ms Vanja Karth

• Initiative, its description and its purpose

Judges Matter is a project of the DGRU. Throughout the year Judges Matter monitors judicial appointments, governance, and conduct processes. We engage in direct advocacy and policy issues that affect the judiciary and access to justice.

• Is your practice research, teaching, service or innovation focused or a combination of these? Our work is primarily focused on research and innovation.

• Briefly description of your practice (be it research, teaching, service or innovation) and how your work responds to the COVID-19 context?

We monitor judicial conduct tribunals, researching the appointment process for acting judges, interrogate the criteria the JSC uses to nominate candidates to the bench, examine the governance of the magistracy, investigating statistics regarding the judiciary, write thought pieces and more.

When the country went into lockdown, so did the judicial system. Our first role was to access all the lockdown regulations, and explain what was happening in terms of access to courts to the broader legal community and court users. We were also the first to publish a simple explainer on the functioning of the courts during the lockdown. https://www.groundup.org.za/article/covid-19-how-courts-work-during-lockdown/ and https://www.judgesmatter.co.za/opinions/judicial-leadership/ (summary of the various regulations issued by the different courts). We successfully advocated for keeping Domestic Violence courts open, and for the regulations to allow those fleeing domestic violence and rape to be able to travel to police stations and courts for assistance. We also successfully advocated for allowing attorneys and advocates to be essential workers in the first weeks of the lockdown. We have subsequently organized a webinar for a collective reflection on how the coronavirus pandemic has affected access to justice in South Africa. We considered how the courts, judicial officers and legal practitioners have responded, including through using online or virtual courts. We were joined by Judge Roland Sutherland (Deputy Judge President, Gauteng High Court), Magistrate Jakkie Wessels Advocate Tererai Mafukidze – and Judges Glenn Goosen (Eastern Cape).

We provided strategic input to the Ministry of Justice on the directions and regulations - on the functioning of the courts, the constitutionality of the first draft of the anti-evictions provisions and the privacy protections for contact tracing. We were able to strengthen the privacy protections in the directions.

We proposed to our colleagues on the Covid 19 coalition that a submission be prepared by the coalition to the police committee on police violence and killings, and worked with the coalition to develop that submission.

We discovered that the Justice committee had not been prioritized as one of the 14 committees that would meet virtually during lockdown. We ensured that the Coalition were aware of that, and supported a letter going to the speaker to raise that, and the Justice committee were then prioritized as committee that needed to meet.

• If your practice is related to work that has taken place before COVID-19, how has it changed in the current context?

The appointments of magistrates have continued unhindered, but the appointment of judges was severely affected by COVID. However, the appointments process has now resumed.

• What are some of the biggest challenges COVID-19 has made visible in your field?

The lack of working infrastructure in smaller rural courts has been laid bare. A number of courts had to stop operating because of lack of running water, or electricity or both. Backlogs have grown, and a number of people are simply without access to court. Judicial officers have been unable to keep courts functioning online, as they lack the equipment, connectivity, and in some instance the computer literacy to do so.

• What are some of your key insights and learning you have gained during this time? The level of computer literacy and connectivity for judicial officers and courts is such that they cannot operate effectively in a virtual environment.

• Why is it important for universities to offer their resources in the time of COVID-19? The University is able to bring many resources to bear on solving COVID related challenges.

• How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

The question of resourcing of courts and training of judicial officers in basic IT skills has become front and centre in terms of access to justice.

### **Global Risk Governance programme**

Chair: Emeritus Professor Clifford Shearing

The Environmental Entrepreneurs Support Initiative (EESI) is a community engagement programme, undertaken by the Global Risk Governance programme, Public Law Department, in conjunction with, the Mauerberger Foundation.

One of the initiatives supported by EESI is the grassroots organisation BEEP (Beyond Expectation Environmental Project). BEEP supports young learners in disadvantaged communities by providing them with support during their school and tertiary career. BEEP's vision is to create a system that develops a pool of visionary leaders, young professionals, and green scholars.

BEEP aims to assist young people who are trapped in the confines of the township environment, across Cape Town by exposing many young people from local communities to healing through the environment. Hikes are arranged on Table Mountain for learners and leadership camps and workshops at schools are held. These were unfortunately put on hold due to Covid 19 regulations.

Their secondary hub includes tutoring sessions, continuous mentoring as well as running financial management and entrepreneurial training sessions. These have all been impacted through COVID.

The Global Risk Governance programme, has worked with BEEP to find ways to mitigate these impacts, by providing encouragement and additional financial support to enable BEEP to fulfil the programme commitments whilst meeting the new challenges brought about with the CoVID restrictions. The support included additional transport costs to enable the project to meet the COVID regulations regarding travel.

#### Centre for Law and Society

Directors: Ms Diane Jafthas and Prof Dee Smythe

The Centre for Law and Society (CLS) is a multi-disciplinary centre where scholars, students and activists engage critically and work together on the challenges facing contemporary South Africa and Africa more broadly, at the intersection of law and society. Through our three interconnected work streams: Engaged Research, Critical Teaching and The CLS Hub, we foreground mutual learning and skills development, bring new voices into the classroom and academy, and facilitate new ways of thinking about and doing law. Our Africa Law and Society Programme centres around strategic, interdisciplinary partnerships, the creation and excavation of new knowledges, and supporting, building and providing access to law and society scholarship about Africa, produced by African scholars.

Two inter-related considerations that present in our programme are a) the importance, and complexities, of supporting African knowledge production at the intersection of law and society, and b) a recognition that the context is one in which authoritarianism is coming to increasingly pose an urgent threat to constitutionalism and the rule of law, in South Africa and elsewhere. Across the globe, authoritarian regimes are using law to undermine democracy and weaken political and social rights. Autocratic leaders are getting into power through democratic means but then seek to subvert the status quo through attacks on and subversion of the pillars of the democratic order. At the same time, in countries like ours, there continues to be investments in law to resist authoritarianism and protect constitutional democracy. There is an urgent need to engage this complex interplay between populist authoritarianism and law and to explore the role of law in the rise of, and reaction to, autocratic legalism in government agencies, courts, legislatures and the legal profession, a trend that has accelerated during the COVID-19 crisis. We believe that the CLS model of engaged law and society scholarship, network-building across the field, and early interventions into the "law pipeline" are important for building knowledge, understanding, and resistance to this trend. There is no question that this knowledge-building has to be done deliberately when it comes to both teaching of law and the production of knowledge from Africa. Our research shows that African scholars, mostly in the diaspora, represent fewer than 2% of authors ever published in leading law and society journals, with no more than 3% of all articles (we reviewed 3012) written since 1964 even touching on Africa as a topic. Building this field – and the visibility of African scholarship – is central to our work.

Noteworthy CLS projects from the 2020/2021 period include the following:

□ Mapping the pasts and futures of law and society scholarship in Africa – This project involves collaboration of African scholars from 10 countries (Zambia, Zimbabwe, Malawi, Nigeria, Egypt, Tanzania, Ghana, Kenya, Sudan, South Africa), and aims to address the absence of Africa in law and society scholarship in, on and from the continent. We seek to bring under close scrutiny the historical drivers and influences of past and present research, including subject-matter, methodologies, researchers' identities and locations, and the outputs that determine the trajectory of African law and

society scholarship. The key outputs are: a Research Handbook, comprising original research on African Law and Society, a Critical Reader on Law and Society in/on/from Africa, which introduces students to key texts, and an open access online Repository of African Law and Society teaching and source materials.

□ African Law and Society Digitisation Project – This project, undertaken in collaboration with UCT Digital Library Services, OpenUCT, SOAS, AfricanLii and Cardiff University's Centre for Law and Global Justice, aims to produce an accessible, thematically-organised open access online repository of African research and teaching materials.

Comparative Perspectives on Autocratic Legalism – This project, with collaborators in Brazil, India, South Africa, the UK and US, aims to study and draw lessons from the complex interplay between populist authoritarianism and law in three large developing countries: Brazil, India and South Africa, exploring the role of law in the rise of and resistance to autocratic legalism in these global South countries.

The COVID-19 context presented specific challenges for our strategies and plans, including fundraising, as our targeted funders across the law and society sector closed offices and suspended grant-making processes; and adapting to new ways of collaborating and implementing, through online platforms. Nonetheless, with learnings captured through our ongoing monitoring and evaluation processes, CLS established a model that allows for adjusted work schedules, flexible and continued implementation of programme activities, while simultaneously raising awareness of, and being responsive to, changing contexts and emerging opportunities.

### **Centre of Criminology**

Director: Prof Elrena van der Spuy and Prof Kelley Moult

Participation (pro bono) in National Research Project to inform a Country Report on the measures implemented by the South African government to combat the impact of the COVID-19 pandemic in South Africa.

In the latter part of 2020, the Centre of Criminology agreed to participate in a country wide research project to assess based assessment of the role of the South African Police Service in the enforcement of COVID-19 regulations. In doing so, we formed part of a national team of academic researchers who invested time and expertise (pro-bono) to assist with the compilation of a Country Report on the measures implemented by the government to combat the impact of the COVID-19 pandemic in South Africa.

Between October 2020 and February 2021, we conducted 27 interviews with senior government officials. The research division of SAPS set up the interviews and left us to troubleshoot connectivity problems as we conducted on-line interviews using cell phones, Zoom, Skype and Microsoft Teams. To expedite our analysis of the research findings we subcontracted the first phase of analysis to three post-graduate students. This came at a research cost to the Centre but had developmental dividends for the students. Three staff members took responsibility for compiling the research report based on interviews across the three Provinces.

We conducted the research at a difficult time of the year and under extremely tight time constraints. The final report was due as the academic year started and this required some juggling. In retrospect however, we found this round of socially responsive engagement rewarding.

We could bring our research and social skills to bear on a topic of global interest; we could build up relationships with senior police officials in three provinces; we could develop an intimate view on the challenges law enforcement experienced in policing the lockdown; and we could identify gaps in our understanding of the impact of Covid on criminal justice institutions; crime patterns more generally and gender-based violence more specifically. In turn, we could entice our new intake of post-graduate Master students to do research on some of the identified themes for their minor dissertations. In addition, we have identified niche areas for future research within the Centre. More recently, the research data we collated allowed us to participate in an international conference on the topic of the Impact of Covid on police and this has yielded some comparative dividends.

The decision to participate – very much informed by the spirit of social engagement – on a project that mapped the politics, logistics and ethics of policing the pandemic, have yielded benefits on a number of fronts. At the time of our decision to join the research team we did not quite anticipate the synergies (for teaching and future research) we are now aware of. Going forward we wish to put this round of experience of social responsive engagement with research to comparative use.

### Departmental information: Private Law

Prof Mohamed Paleker

• Initiative, its description and its purpose.

An advisory member of the South African Law Reform Commission working on Project 100D: CARE OF AND CONTACT WITH MINOR CHILDREN (INCLUDING FAMILY DISPUTE RESOLUTION)

• Is your practice research, teaching, service or innovation focused or a combination of these? YES.

• Brief description of your practice (be it research, teaching, service or innovation) and how your work responds to the COVID-19 context.

Teaches the law of civil procedure and is thus engaged in procedural law reform that impact on the courts and litigation. My work goes beyond covid-19 and addresses issues such as poverty and access to justice.

• If your practice is related to work that has taken place before COVID-19, how has it changed in the current context?

The project started before COVID-19 but we are now also incorporating mechanisms to facilitate online dispute resolution.

• What are some of the biggest challenges COVID-19 has made visible in your field? South Africa has a gini coefficient of 0.63. Access to resources between the rich and the poor is a tremendous challenge at any time.

• What are some of your key insights and learning you have gained during this time? That you can do a lot of work remotely and save the State lots of money in terms of getting people to work collaboratively.

• Why is it important for universities to offer their resources in the time of COVID-19? We have expertise that others need.

• How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

Legislation lasts for decades. The face of family dispute resolution will change forever.

### SARChI: Mineral Law in Africa

Chair: Prof Hanri Mostert

• Initiative, its description and its purpose.

The SARChI: MLiA's focus is on

(1) expanding the body of scholarship available on mineral law in Africa;

(2) creating an African intelligentsia by fostering hubs of expertise around the Chair's graduates through ongoing support and engagement of such graduates in the research and teaching activities of the Chair; and

(3) supporting the improvement of law and policy making around the extractives sectors of Africa. The SARChI: MLiA engages with regulatory frameworks, the underlying motive being to influence investment practices towards sustainable and ethical choices. Now in its second term, the SARChI: MLiA's activities have expanded further. One new intervention is work on how the Mining Sector is engaging with Covid-19-related challenges.

• Is your practice research, teaching, service or innovation focused or a combination of these? SARChI: MLiA's practice is a combination of research, teaching and innovation.

• Brief description of your practice (be it research, teaching, service or innovation) and how your work responds to the COVID-19 context

The SARChI: MLiA leveraged funds for science engagement on Covid19 in the Mining Sector of Africa. It published several op-ed / blog pieces in the course of 2020 with several more in the pipeline for 2021. It also received training in science writing for the popular media; and have assisted COGTA (Dept of Co-operative Governance) in deliberations on resuscitation of mining towns and communities in the fact of Covid-19 challenges.

• If your practice is related to work that has taken place before COVID-19, how has it changed in the current context?

SARChI: MLiA's pre-Covid19 work continues. The context and modus operandi has changed because of Covid19 limitations, but the aims and objectives remain on track. In particular, the SARChI: MLiA has found the methodology of "futures research" quite useful to study the effects of Covid19 on the mining sector. It enables researchers to identify the potential that hides inside a major disruptive event. It is a sufficiently complex matrix to deal appropriately with the complexity of all the moving parts that need to make up any response to the Covid-19 crisis.

• What are some of the biggest challenges COVID-19 has made visible in your field?

The mining sector is one of the major contributing sectors towards the job market and the economic outlook of the country. It has not been spared from the crisis that is the Covid-19 pandemic. Covid-19 made our people ill, but the economic consequences of trying to keep them out of harm's way have made our mining sector very infirm.

This pandemic has brought our country's economic sustainability – so intimately linked to resource extraction – under serious threat. South Africa was on its knees already before Covid-19 hit. It had been plagued with what has become known as the "evil triplets" of poverty, unemployment and inequality. The 2020 lockdown was as a precautionary measure to arrest the rapidly growing infection rates. All

mining operations had to stop abruptly. When the mines resumed their work later, it was with reduced

capacity and production. This has placed many mining companies in distress, even ones that were previously financially healthy. Hardest hit were the smaller companies: SMMEs that may often lack the capacity to withstand the economic shocks occasioned by a massive disruptive event, such as the Covid19 pandemic. Distressed enterprises are now frequently resorting to restructuring; selling off assets or parts of their businesses, reducing staff through retrenchment, restructuring debts, and reducing expenses to avoid business rescue, or liquidation. These measures have placed other parts of the economy under strain, especially through the mass retrenchments that had been necessitated because of the severe reduction in productivity.

The effects of mass retrenchments were devastating: jeopardised livelihoods of individuals. Mining communities susceptible to economic inactivity. Regression on social development. Ultimately, even higher numbers of people below the poverty line. Many municipalities now have to receive an increased inflow of people who no longer can make a living in urban areas around mines. Many more people are living hand to mouth.

• What are some of your key insights and learning you have gained during this time?

There are at least four areas related to mining, to which we should be paying attention in the wake of the Covid19 disruption: Health and Safety, Governance, Social/Environmental and Economic imperatives.

The insights are summarised in these different science engagement endeavours:

MLiA Blogs

• Kennedy Chege "Business Interruption Insurance in light of COVID-19: Does it cover pandemic-related losses caused by the damage and destruction to insured property?" MLiA Blog (28-04-2021) http://www.mlia.uct.ac.za/news/business-interruption-insurance-light-covid-19-does-it-cover-pandemic-related-losses-caused

• Bernard Kengni "COVID-19 Pandemic Era: A Time for Stricter Compliance with Occupational Health and Safety Guidelines in the South African Mining Sector" MLiA Blog (09-02-2021) http://www.mlia.uct.ac.za/news/covid-19-pandemic-era-time-stricter-compliance-occupational-health-and-safety-guidelines-south

• Richard Cramer "Mining the Past in a Pandemic: Part III – The Lingering Epidemic" MLiA Blog (06-11-2020) http://www.mlia.uct.ac.za/news/mining-past-pandemic-part-iii-%E2%80%93-lingering-epidemic

• Richard Cramer "Mining the Past in a Pandemic: Part II – The Great Pandemic on the Rand" MLiA Blog (19-06-2020) http://www.mlia.uct.ac.za/news/mining-past-pandemic-part-ii-%E2%80%93-great-pandemic-rand

• Gaopalelwe Mathiba "Mining Companies Should Not Protect Only Mineworkers Against Covid-19, but Mining Communities as Well: AMCU v DMRE & Others" MLiA Blog (04-05-2020) http://www.mlia.uct.ac.za/news/mining-companies-should-not-protect-only-mineworkers-againstcovid-19-mining-communities-well

• Gaopalelwe Mathiba "The Looming Coronavirus-Induced Mass Retrenchments: At the Crossroads of MPRDA & LRA" MLiA Blog (29-04-2020) http://www.mlia.uct.ac.za/news/looming-coronavirus-induced-mass-retrenchments-crossroads-mprda-lra

• Aysha Lotter "The Impact of Government's Response to Covid-19 on Mineworkers in South Africa" MLiA Blog (29-03-2020) http://www.mlia.uct.ac.za/news/impact-government%E2%80%99s-response-covid-19-mineworkers-south-africa

• Gaopalelwe Mathiba "The 'Force Majeure' Doctrine and Coronavirus: A Mining Industry Perspective" MLiA Blog (26-03-2020) http://www.mlia.uct.ac.za/news/%E2%80%98force-majeure%E2%80%99-doctrine-and-coronavirus-mining-industry-perspective

• Richard Cramer "Mining the Past in a Pandemic: Part I – The Great Smallpox Cover-Up" MLiA Blog (23-03-2020) http://www.mlia.uct.ac.za/news/mining-past-pandemic-part-i-%E2%80%93-great-smallpox-cover

Then, the SARChI: MLiA also commented on the policies of the DMR:

Commentary on the Draft Guideline for the Compilation of a Mandatory Code of Practice for the Mitigation and Management of Covid-19 Outbreak http://www.mlia.uct.ac.za/news/commentary-draft-guideline-compilation-mandatory-code-practice-mitigation-and-management-covid

Further insights were expounded in these External publications, of which there will be more in the course of 2021.

• Richard Cramer "Digging Up the Past in a Pandemic: South African Mining Industry Must Learn From its Mistakes" Daily Maverick (05-05-2021) https://www.dailymaverick.co.za/article/2021-05-05-digging-up-the-past-in-a-pandemic-south-african-mining-industry-must-learn-from-itsmistakes/?utm\_campaign=snd-autopilot

The biggest single insight from this work, probably is how resilient people and systems can be. In South Africa we are facing severe problems. And yet it is a testimony to the strength of spirit of the South African people that we keep on doing what we can. Government, the mining sector and mine communities have already started responding to this new era of challenges. What a futures research approach unveils, is that the important thing is to move forward, even if we make mistakes, and even if we cannot get it right immediately.

• Why is it important for universities to offer their resources in the time of COVID-19?

Government has short term responses in place, and long term strategies as well. The COBRA initiative and the UIF/TERS support are two noteworthy interventions. Stimulus packages, and financial support to specific initiatives, and even to municipalities, have been made available. The real challenge is, however, that there is simply not enough money that we can throw at the problems surfacing from Covid19, because some of these problems have already existed earlier.

Mining companies have come to the table, despite operating under quite debilitating circumstances, and communities have also showed up to help solve the problems they are facing. So, for instance, there has been mine-initiated work-creating opportunities; as well as support initiatives by mining companies in struggling municipalities, for provision of basic services.

In an all-hands-on-deck kind of scenario, where all of us must do what we can to keep the metaphorical ship that is our country afloat, one can welcome such initiatives. Certainly, public-private partnerships have in the past contributed to addressing or management of other crisis, not least HIV/Aids, specifically in relation to mining. It will not bode well for the integrity of government if the private sector is expected to fulfil government functions in the long run. So It is crucial for government to claw back these responsibilities and execute its functions in a reliable and transparent manner, also honouring the Bathopele principles. This is where universities and research teams can provide valuable contributions: as a nationally funded resource, the knowledge, experience and insight pooled within these institutions can assist the government in deciding on the best course of action, and on trouble-shooting particular responses to the crisis.

• How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

We need to ask ourselves how to fashion a just transition to a new extractive age, and that will probably require plans to incentivise reskilling of the mining workforce. It's a realisation that has been a long time coming, but Covid19-induced mass retrenchments really turned the volume up on this particular aspect.

How to keep mineworkers safe and healthy sometimes requires Solomonic decisions. One such was the Government's decision to repurpose funds meant to combat other mining-related diseases, such as TB, HIV & Silicosis. It is an understandable decision under the circumstances, but it will take its toll in the long run. This situation will have to monitored going forward.

In this time of disruption, what is quite frightening, is that the systemic challenges experienced at municipal levels before Covid19 struck are now exacerbated by it. The infrastructural weaknesses and capacity constraints that were already prevalent in the system, and that had caused severe backlog on transformation and sustainable housing programmes, now augment the challenge. This matter will need urgent attention in the future.

Housing provision has been one of democratic South Africa's ongoing problems. Already before Covid19, government was battling to meet the growing demand for housing. Mining companies have to some extent taken over significant responsibilities of housing provision in some mining-dependent communities. But lockdown and physical distancing coupled with displacement and the release of people from dormitory-type accommodation have pushed our society into an abyss of rising need and diminishing capacity to perform. It will take some work to turn this trend around.

### Faculty of Science

This introduction and overview of examples of SR-type work undertaken by members of the Science Faculty highlight some of the innovative responses and challenges experienced by researchers and academic staff involved in teaching and learning during the COVID-19 pandemic. These examples also demonstrate the resilience of the Faculty to adapt to change and crises in order to pursue SR-type activities and respond to the needs of the constituencies they serve. In line with the rest of the faculty submissions, these cases will be discussed highlighting challenges and opportunities in pursuing SR work and the resilience of the faculty to adapt and innovate under these extraordinary circumstances.

### Challenges

In the projects reported on by Science Faculty members, researchers highlighted how the COVID-19 pandemic has exposed the structural inequalities in South Africa and how disasters exacerbate the conditions confronting poor and marginalised communities. These inequalities and hardships require a reconsideration and reorientation of project activities and plans to focus on immediate needs and priorities of the community. Much of the SR-type work involves working collaboratively with external partners and communities in their contexts and various activities needed to be postponed or re-orientated to accommodate COVID-19 restrictions. Furthermore, new ways of communicating and working together had to be explored. Many of these communities are poor and marginalised and are not able to communicate via online platforms and do not have access to the internet. Those partners and communities that could communicate by cell phone have limited resources for airtime and data. A further challenge identified was the need for funding to better communicate results of research undertaken that was relevant to the COVID pandemic, to a wider audience.

### **Opportunities**

The pandemic required adjustments and innovation in Teaching and Learning. In one course in the Computer Science Department, adjustments were made to teaching topics and materials to raise awareness and build knowledge around impacts of COVID -19 on society. In another project at the Water Hub in Franschhoek, it was necessary to turn field work experimentation into a virtual lab and explore design options and experiment with web-based tools and bring external university partners to the virtual lab through online platforms. In terms of SR research initiatives, the Peri-Urban Resilient Ecosystem project (PURE) was able to conduct their household surveys in Kenya, Tanzania, and Namibia and focused on the views of residents regarding the way the coronavirus outbreak has been handled, their perceptions of risk, how they have adapted and so on. This information has been able to inform local government responses to the pandemic and contribute to debates and plans about "building-back-better". The modelling team, MASHA, in the Department of Statistical Sciences, has contributed their expertise through providing support and expertise to the National Department of Health's response to the COVID-19 pandemic though the development of mathematical models. This collaborative work is informing planning and management of the pandemic in South Africa.

Researchers in the Department of Environment and Geographical Science, working on an interdisciplinary project, One Ocean Hub, have worked closely with researchers at Rhodes University, One Ocean Hub Emphatheatre Group, to establish a Coastal Social Justice Network WhatsApp group for about 20 fisher leaders from around the coast. The research team motivated to funders to redirect funding to enable this communication and information sharing amongst fishers and the research team during this period. The Whatsapp chat has brought the everyday realities of traditional fishing communities the fore, providing understanding and insights to the challenges facing these communities on a daily basis and providing new avenues for gathering data and sharing research findings. Several research teams reported that the responses required during COVID have opened possibilities for new collaborations and strengthened existing partnerships leading to joint funding proposals and new partnerships.

### Resilience

While a major focus of the faculty has been on redesigning courses for emergency remote teaching and becoming acquainted with the online teaching platforms and exploring alternative means of communication, SR-work has continued albeit in new and adapted ways. Researchers have reorientated their project activities and harnessed expertise to meet the particular information needs of external partners and communities in relation to the pandemic. More than ever, communities and other social partners have required access to information, specific expertise and access to wider networks. Members of the Science faculty engaged in SR-type work have been able to respond to information needs and requests from partner organisations and communities and have found innovative ways to continue their work and redesign activities to accommodate COVID restrictions.

Department/Unit:	Department of Environmental and Geographical Science (EGS)
Key Persons:	Kevin Winter
Initiative:	The Water Hub – Franschhoek

The Water Hub is a research and demonstration centre that is using nature-based processes to treat water and use in this water to irrigate and grow vegetables for local gardeners from an informal settlement. Research and innovation in science and technology is helping to explore new designs and practices contribute to Sustainable Development Goals at a local scale. The work of the Hub combines research, teaching, service and innovation.

### Brief description of your practice and how your work responds to the COVID-19 context:

The research incorporates laboratory scale experiments to model and apply the findings to large scale systems at the Water Hub. After 2 years of data collection, the researcher has established reasonable confidence in the ability to treat water to irrigation standards and are use this water for growing food. Unfortunately, COVID-19 restrictions have delayed the expansion of the food gardens by over 6 months. Researchers have returned and are working on expanding the garden project and re-starting the engagement with the leadership of informal settlement community. A small group of gardeners will be trained in different methods of growing vegetables and in plans a co-operative enterprise. COVID-19 exposed the extent of the hunger and levels of unemployment in the informal settlement. In addition, the local town, which is highly dependent on tourism and the hospitality trade was hugely impacted and may take a long time to recovery from the pandemic. In the interim, research at the Water Hub is making progress in expanding the scale of the experiments, improving and testing techniques for growing food and in the co-development of a community-based enterprise.

## If your practice is related to work that has taken place before COVID-19, how has it changed in the current context?

COVID-19 has delayed the project by at least 6 months. The intention of this project has always been to build a compelling project where the interconnections of Food-Energy-Water demonstrated in a circular economy. The easing of restrictions is enabling the researchers to get back on site, to advance science and technology, and to build a platform for interdisciplinary research and shared learning.

### What are some of the biggest challenges COVID-19 has made visible in your field?

COVID-19 exposed the extent of systemic failure in the informal settlement of Langrug, Franschhoek. The collapse of the economy in the town is likely to have long term consequences. The social responsiveness of the research work at Water Hub will take time before it can show how its contribution is able to support the livelihoods of small group gardeners and others who will be involved in helping to develop a co-operative enterprise.

### What are some of your key insights and learning you have gained during this time?

The living lab provides a practical space for active experimentation, trialling and modifying the work from the feedback. During COVID0-19 we were able to build small scale experiments and to improve our understanding of processes and systems operating at the Water Hub, for example, we built a smaller biofiltration cell in the EBE Civil Engineering laboratory to replicate the flow and detention time that mimicked the treatment cells at the Water Hub.Under normal circumstance post-graduate students would have visited UCT in partnership with the Dutch Orange Knowledge Programme exchange. The Water Hub usually provides are rich experience for learning together while working actively on the site. We were unable to do so. Instead, the Living Lab at the Water Hub became a virtual lab in which we explored options for developing the design and by learning how to use interactive web-based tools and strengthening strong ties through small group interactions with post-graduates from UCT and other Dutch universities.

### Why is it important for universities to offer their resources in the time of COVID-19?

Living labs create an environment where researchers can test theory and practice in a safe environment where failure is tolerated but success is encouraged in the pursuit of excellence. In addition, when a living lab is surrounding by social realities of poverty and degraded environmental conditions, it provides researchers with an opportunity to respond this context and to think creatively and imaginatively about how to implement projects that seek to address these challenges. COVID-19 exposed multiple layers of the crisis and it is morally indefensible for a university to ponder or even write about these realities from a distance. Rather the response from a university is to transform learning through experience teaching and learning in a context that demands and challenges new thinking, a new skill set and a willing to engage in practice that contributes towards problem solving and recognises the value of collaboration with local stakeholders.

# How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

The urban living lab at the Water Hub is site that offers opportunities for developing experiential knowledge. The easing of the lockdown is enabling researchers to re-engage with local community to give better support for building a co-operative enterprise. The project is well funded by international research partners through several research projects. The site is unique in its geographic location and socio-economic context. It lends itself to science and technological research and innovation, but also in understanding how to enable previously disadvantaged citizens to enter and participate in a circular economy, and one that is more just and sustainable.

Department:	Department of Environmental and Geographical Science (EGS)
Key Persons:	Jessica Thorn and Claire Austin
Initiative:	The Peri-Urban Resilient Ecosystem (PURE)

Through the Peri-Urban Resilient Ecosystem (PURE) project, researchers from the University of Cape Town and University of York are helping residents, community-based organisations, shack dweller federations, and government bodies in Kenya, Namibia and Tanzania evaluate the current situation and improve their preparations for future disease outbreaks. The project combines both research and service.

### Brief description of your practice and how your work responds to the COVID-19 context:

African informal settlements have been severely affected by the coronavirus (COVID-19) pandemic due to the close proximity of residents, encroached ecosystems, lack of formal infrastructure including sanitation and waste removal, poor healthcare provision, and fragile community economic resources. Residents in informal settlements are facing high infection rates, not only due to comorbidities, food shortages, a lack of clean and reliable water, high dependence on public transport and daily wage labour, loss of income and some families are missing out on access to digital services such as online e-learning for school children while other experiencing growing levels of domestic violence. Additional pressure is also being put on rural communities who rely on urban relatives to send remittances levels that are globally declining.

The pandemic is also putting a strain on local government organisations which often do not have the resources or mandate to develop suitable infrastructure, health care or long-term strategic management for these informal settlements.

Central government responses are also varied – a situation that increases the perception of risk and reduces the likelihood of investment in relief efforts from philanthropic organisations.

# If your practice is related to work that has taken place before COVID-19, how has it changed in the current context?

The team is currently helping to administer a survey of 4,500 households across Kenya, Tanzania, and Namibia to gather residents' views on the way the coronavirus outbreak has been handled, their perception of risk, the direct and indirect impacts the pandemic has had on their livelihoods, trust in information sources, environmental impacts of the disease, how they have adapted to the virus and associated lock down or social distancing guidelines issued by the government at individual, community and city-wide levels, and what does this imply for future disease disaster preparedness

Dr Jessica Thorn explains "Although this research has focused on the COVID-19 pandemic, we hope to gain insights on the resilience of people living in informal settlements, and this can be telling in terms of how resilient these communities are to other stressors, such as flash floods, heatwaves and loss of ecological integrity. Strengthening ecosystem resilience could play a key role in building human social resilience, as nature-based solutions can contribute to better-management of spaces in and around informal settlements. PURE's work is providing immediate benefit on-the-ground in terms of better local information to help guide the COVID-19 response in the informal settlements but it also provides us with an extraordinary opportunity to feed this learning into debates on how to build-back-better with post-COVID-19 economic stimulus packages." After the survey has been completed in late July, the researchers will work with community-based organisations, local shack dwellers alliances, researchers and government bodies to design suitable pandemic preparedness, response, and recovery plans.

### What are some of the biggest challenges COVID-19 has made visible in your field?

COVID-19 has brought to the forefront how disaster only exacerbates and further perpetuates existing inequalities. People living in Informal settlements are more susceptible to infection, there are higher rates of infection in these areas and lockdown measures, in some instances, heighted specific vulnerabilities, especially around nutrition.

### How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

An interesting insight from our COVID-19 fieldwork was a revelation on how people have helped each other during the pandemic. The social network in informal settlements enabled people to draw strength from each other, providing care, counselling and emotional support to both young and old. Unfortunately, much of this care continues to be delivered by women alone and is unpaid. There is a concern that COVID-19 has resulted in a permanent exit of many women from the labour market. Resilience of the community, whether impacted by a pandemic or climate change, cannot come at the expense of women's reduced adaptive capacity, and this insight needs to inform research going forward. That being said, building ecosystem resilience could play a key role in building human social resilience, as nature-based solutions can contribute to better-management of spaces in and around informal settlements that can either help or hinder resilience, depending on how it is managed.

# Department:Dept. of Statistical Sciences/ Modelling & Simulation Hub Africa (MASHA)Initiative:Estimating Cases and Deaths of COVID-19 in South Africa

Throughout 2020 and currently, along with my research unit MASHA, I am supporting the National Department of Health's response to the COVID-19 pandemic though the development of mathematical models.

As a member of the South African COVID-19 Modelling Consortium (SACMC), a group of experts convened to provide technical support to decision makers tackling the COVID-19 epidemic in South Africa, MASHA is well placed to conduct relevant, impactful research on epidemic modelling. MASHA is a member of the core modelling team in the Consortium. While all members contribute to the conceptual development and evaluation of models, my primary role has been and continues to be to develop the foundational model, program and run the current model and present modelling findings.

### Brief description of your practice and how your work responds to the COVID-19 context:

In collaboration with research groups in Stellenbosch University, Wits University and the National Institute for Communicable Diseases, we developed two tools, the National COVID-19 Epi Model (NCEM) and the National COVID-19 Cost Model (NCCM), both of which were regularly updated throughout the first wave of the epidemic. The NCEM is a stochastic compartmental transmission model to estimate the total and reported incidence of COVID-19 across the provinces (later: districts) of South Africa. The model follows a generalised Susceptible-Exposed-Infectious-Removed structure accounting for disease severity (asymptomatic, mild, severe and critical cases) and treatment pathways (outpatient, non-ICU and ICU care). The NCCM uses NCEM outputs and information on likely need for other resources (human resources at all care levels, oxygen, oxygen delivery devices, SARS CoV-2 tests, infection control and prevention infrastructure) and their baseline availability, and public-sector costs to project the total COVID-19 resource needs and budget impact. Nationally, the outputs of the modelling are used to inform (among other things):

- human resource planning in hospitals
- expansion of hospital and ICU beds
- planning the supply of drugs to hospitals

- purchasing of PPE
- the allocation of funds to support the national COVID-19 effort
- and planning of mortuaries and burial grounds.

While the first wave of the epidemic has appeared to have run its course throughout the country, the threat of a second wave and the anticipation of a vaccine has resulted in a new workstream for the SACMC. I am currently a member of a workstream for vaccine-related modelling on the Ministerial Advisory Committee and this work is anticipated to continue for at least the next 12 months. Further details about our work can be found online. <sup>111213</sup>

# If your practice is related to work that has taken place before COVID-19, how has it changed in the current context?

My research is infectious disease modelling to support national policy and planning. COVID-19 presented a new disease to model.

### What are some of the biggest challenges COVID-19 has made visible in your field?

One of the key challenges highlighted was scientific communication not just with policymakers but with the public as well. We found, that in such a globally sensitive situation as the pandemic, we were unable to communicate as effectively with the public as was necessary. In future similar situations, it is hoped that funding would be available to hire a communications person full time.

Another key challenge faced by modellers and epidemiologists around the world was the science-nonscience divide characterised by distrust of science, fake news and armchair epidemiologists.

### What are some of your key insights and learning you have gained during this time?

Collaboration is easy if your goals are united. The team supporting national government comprised of leading modellers from three institutions and the NICD and worked seamlessly throughout the epidemic. We have since applied for several grants together and will most likely continue this partnership for many years to come. We need to work now in terms of preparing data systems and establishing pandemic preparedness protocols and modelling templates to be better prepared for the next epidemic.

### Why is it important for universities to offer their resources in the time of COVID-19?

My experience has been that I have greatly benefitted from the University resources provided such as legal counselling services and mental wellbeing. Additionally, researchers need funding to cover salaries of staff and research costs when working to support government. Having the support of the Wellcome Trust has made my social responsiveness work possible, but this may not be the case going forward.

## How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

As mentioned, we have applied for several grant funding opportunities to continue this research and support the national planning process and train future modellers. The availability of funding and research time can enable this work to be sustained.

<sup>&</sup>lt;sup>11</sup> <u>https://www.nicd.ac.za/diseases-a-z-index/covid19/surveillance-reports/</u>

<sup>&</sup>lt;sup>12</sup> <u>http://www.masha.uct.ac.za/masha/covid19</u>

<sup>&</sup>lt;sup>13</sup> <u>http://www.masha.uct.ac.za/masha/masha\_media</u>

Department:	Department of Environmental and Geographical Sciences (EGS)
Key Persons:	Merle Sowman, Jackie Sunde and Philile Mbatha
Initiative:	One Ocean Hub Small-Scale Fisheries Research Group

The One Ocean Hub Research Project aims to 'Transform ocean governance for an inclusive, innovative and responsible blue society'. The COVID-19 Lockdown and the social and economic inequities that it unmasked revealed the underbelly of power relations in the ocean and coastal zone at multiple levels. Not only were thousands of fishers who depend on the sea for their basic food security not able to feed their families, but poor fishers who have little or no access to internet communication technologies (ICTS) were overnight further excluded from a wide range of policy and decision-making processes. This forced the UCT EGS One Ocean Hub research team to reassess our research methodology for tracking the impact of the Blue Economy on coastal livelihoods, to adapt our approach but most importantly, to learn to listen and hear fishers' voices and lived experiences in new ways.

Unable to proceed with regional focus groups or interview fishers directly, the team collaborated with the Rhodes University One Ocean Hub Empatheatre Group at the Environmental Learning Research Centre to establish a Coastal Social Justice Network Whatsapp Group for 20 fisher leaders from around the entire coastline. The team approached One Ocean Hub funding agency to motivate for converting our fieldwork budget into data and airtime for the fisher leaders, thereby enabling them to network with each other across Lockdown boundaries, as well as engage with us through an online chat.

This Whatsapp group and the availability of data provided a platform for the leaders to document and raise requests for help with a wide range of legal and policy challenges that they were experiencing. These requests for help included a call from 10 fishers arrested for gathering to discuss the fact that they had no water in their village; unlawful arrests of fishers with customary fishing rights, a case of alleged police brutality, lobbying the Minister of Environment, Forestry and Fisheries to allow fishers to be regarded as essential services and permitted to fish, liaising with the Department officials regarding the delivery of food parcels and challenging their exclusion from public participation processes amongst many others.

The opportunity for the fishers to engage with the One Ocean Hub researchers on WhatsApp disrupted boundaries between theory and practice, between academic and applied research and forced the One Ocean Hub team to reflect on their own role as scholar-activists in new ways. The Whatsapp chat has placed the everyday realities of small-scale, traditional fisher communities on our screens in radically new and challenging ways.

For the first time, the research team gets daily updates from fishers from around the country and we are forced to confront the way that these poor, largely rural or peri-urban fishers are being impacted by the fast pace of neo-liberal Blue Economy developments that are significantly affecting (or will affect) their lives and livelihoods – from oil and gas exploration applications off-shore to on-shore sand mining prospecting, the expansion of the conservation estate without meaningful consultation to being coerced into partnerships with private companies to ranch abalone.

It has given us an acute appreciation for the wide-ranging nature of the impacts of neo-liberal, capitalist expansion in the coastal and ocean space. Most concerning has been the way that the State agencies, particularly the Department of Minerals and Energy and Department of Environment, Forestry and Fisheries as well as private consultants working on various Blue Economy projects have regarded online consultation as a legitimate form of statutory public participation despite the fact that these online fora largely exclude poor citizens who are not able to participate.

This exclusion just further deepens their already marginalised position vis a vis the powerful corporates and wealthy, capacitated elites who dominate mining applications, conservation planning initiatives and other development planning processes. To counter this social exclusion, the team at UCT and Rhodes University has worked with fishers to facilitate the sharing of information using Whatsapp, to build the capacity of the fishers to participate in online meetings and to translate complex policy processes and strategic documents into accessible information, translating it into isiXhosa, Afrikaans and isiZulu. Unable to proceed into the field, the EGS OOH research team trained a group of 11 selected small-scale fisher leaders in all four coastal provinces via telephone and Whatsapp on how to undertake survey research. Maintaining strict COVID protocols, these leaders then implemented the survey in their local communities and the research results were sent back to the team using Whatsapp images. This enabled us to build the capacity of local leaders and gather data in new ways.

Unlike the fishers' experience, the forced transition to more online engagement opened up a universal ocean of opportunity for us as academics and researchers. Through the One Ocean Hub we have been able to take advantage of the increased opportunity for networking and have had the privilege of presenting at United Nations Ocean's Week and a range of other online events that have catapulted the team into the realm of international research connectivity and potential partnerships. Regular 'Living Aula' meetings with fellow One Ocean Hub teams in the South Pacific, in the Caribbean, in the UK, Ghana, Namibia and Kenya has enabled us to share insights into the impact of COVID 19 across numerous barriers, to understand its reach into statutory and customary governance regimes in far flung coastal areas.

Intersecting our COVID-19 work has been the racism exposed through Black Lives Matter, which triggered the One Ocean Hub in South Africa to create an online engagement to address issues of power, exclusion and systemic racism in our work across multiple scales.

Notwithstanding the valuable increased exposure, we as academics and researchers have had to other research teams and online learning opportunities during this period, what this period has highlighted for us is the privileges that we enjoy from the vantage point of having access to ICTs and knowledge of governance and policy processes and how this access is fast becoming one of the dividing lines between the haves and the have nots, playing into pre-existing social exclusions and inequities.

This combination of access to both knowledge and resources in times of global and local pandemics of poverty, food insecurity, climate crisis and conflicts requires us to imagine the University's role and social responsibility in new ways. We are unsure how we will sustain this new expression of our scholar-activism roles as this will not be easy, coupled with the on-going demands of teaching and research as well as caring for families in an increasingly uncertain future. However, we are certain that we need to do this.

### Initiative: Social Issues and Professional Practice in IT and Computing

Teaching adjustments in the Social Issues and Professional Practice in IT & Computing module of the CSC1016S course. It is running each year already and has as aim to sensitise computer science students to the impact of ICTs on society. The main aim was to make it more relevant and stay accessible.

#### Brief description of your practice and how your work responds to the COVID-19 context:

We added supplementary readings and a new forum section was added with "articles in the news", with as purpose to bring current news articles on COVID-19 & ICT under attention and up for discussion. The related assignment (essay) was set to a topic relevant to COVID-19: robot teachers.

It bears relevance in that at the time of the topic selection, discussions were raging on whether to open schools and expose teachers to possible infection. A screenshot of the assignment context noting COVID is appended at the end FYI. Our aim was to try to show relevance of the topics we cover in SIPP to concrete immediate societal aspects and issues; to make students not assume that all IT & computing thrown at it as an immediate solution (i.e., of not falling into the 'IT saviourism' trap); and to structure content and facilitate discussion online, as an impoverished, but at least some, way for practicing discussion skills.

### What are some of the biggest challenges COVID-19 has made visible in your field?

It would be too early to respond to that at present. For teaching & ICTs, surely it has made well-known issues more visible, such as the much-increased insidious online surveillance and the inequality in access and effective use of the internet.

### What are some of your key insights and learning you have gained during this time?

For the ERT, more tech turned out to work than was anticipated upfront.

### Why is it important for universities to offer their resources in the time of COVID-19?

Solutions come forth from knowledge, and knowledge is (or else ought to be) a public good. Public universities are in a considerable amount paid from taxpayer's funds, with as aim to be for the benefit of society. Contributing to solutions to stem the tide of COVID-19 is to the benefit of society. Hence, it makes sense to offer resources.

# How might your social responsiveness work undertaken during this period be sustained or inform work going forward?

A postgrad with an interest in 'hot topic X' could be hired for vac work, or a task added to the TA tasks, to scan news outlets to collect relevant news articles and post them.



### Properties and Services

# Department/Unit: Occupational Health and Safety, Cleaning, Security, Maintenance and Construction

### How did the pandemic impact your area of work?

The biggest impact was to rapidly evaluate and respond to the various levels of lockdown using information released by Government. This meant collaborating with the various departments required to ensure the safe closure of the University at the start of the pandemic. It also entailed developing policies and procedures for the safe return of staff and students in a phased approach, as the lockdown levels were lowered.

The biggest challenge was getting the buy in from Staff and Students to understand that UCT is doing what is best to ensure the health and safety of everyone. One of the positive impacts was that the pandemic raised the awareness and importance of having to develop policies, procedures and put in place controls to manage the health and safety of staff and students. It led to Faculties and Departments learning how to develop, implement and control safety measures with day-to-day Health and Safety management in mind.

There has been a lot of resistance to the remote work/study requirements, however UCT Executive felt this was the best course of action in order to quickly react should a second wave hit the country and we are required to return to higher levels of lockdown.

### What interventions did you put in place in the workplace?

The immediate interventions were to institute a COVID-19 Coordinating Committee (CCC) who would take charge of critical decisions and implement controls to ensure the health and safety of all staff and students. In March 2020 when the country was placed in a hard lock-down, UCT was forced to send staff and students (in residence) home. The campus was then closed and locked down by CPS. Special measures were taken to ensure the correct PPE, as well as hand sanitisers were issued to the CPS staff who remained on campus to ensure the safety and security of the premises.

Once this was complete, the CCC started the development of the COVID-19 policy and framework for the phased in return to campus for students and staff. This included the requirement for all faculties and departments to submit a Return-to-Work Plan outlining what measures would be implemented in order to ensure staff and students are not placed at risk of contracting the Virus, as well as lists of persons to return for approval to ensure UCT kept the numbers as low as possible in line with the DHET regulations. A Central PPE store was instituted in order to buy bulk PPE, screens and sanitisers to ensure all UCT staff and students were sufficiently supplied with the required measures.

In line with the Department of Health Regulations, Personal Health Risk Assessments were required by all staff and students required to return to Campus. This was done through the Occupational Health unit for Staff and Student Wellness services for Students. The assessments were done through an online system (RedCap) where persons could complete an online questionnaire and submit proof of comorbidities. Where proof was not supplied, persons were contacted personally by the Occupational Health Staff to get the required information in order to make an assessment by the Occupational Health Doctor.

Only persons who were cleared as low risk were allowed to return to campus. Persons who were classified as Moderate or High Risk were either requested to remain at home or return to work with special measures put in place to protect them. Once Faculty and Departmental Return to Work plans had been submitted and approved, the Faculty or department was required to complete a pre-start checklist to ensure all the COVID-19 safety measures were in place before returning staff or students to the buildings. This was carried out by the Faculty/department appointed COVID-19 manager.

Additional policies had to be developed and put in place to ensure contractors who were required to carry out essential maintenance and services during the lock down period, did so in a controlled and safe manner. This was done through an online COVID-19 policies and procedures vetting process to ensure all contractors had their COVID-19 policies and staff protection measures in place before allowing them access onto campus. To ensure everyone is aware of the requirements and precautions for COVID-19, an online induction programme was run for all staff, Post-graduate and Post-Doctoral fellow students. For the employees who did not have access to online learning, such as the cleaning staff and security, face to face inductions were carried out.

### What interventions were put in place regarding social responsiveness to employees and the greater UCT community?

In order to ensure social responsiveness, P&S runs regular COVID-19 communications and updates, as well as regular training sessions were held to ensure peace of mind for the staff returning to campus that they, and their families will be protected as far as possible. To protect cleaning services staff, up until Level 2 Lockdown, all cleaning services were outsourced in order to ensure no UCT staff member was put at risk. This also allowed for Private companies to have staff remain employed. Staff have access to online counselling through the iCAS system where they can raise their anxieties or get help for issues such as alcohol abuse, depression or any other mental health issues that were brought on by the effects of the COVID-19 pandemic.

In order to maintain a policy of all staff being paid during the lock-down period, the P&S maintenance department shut down all buildings air conditioning units, lifts and any other power source that was not required to maintain equipment. This gave the University a large saving in utility bills that assisted with the recovery of some of the wage bill costs. As part of UCT's commitment to their staff, P&S kept all staff members on full pay during the lock down period and staff were not required to use their leave. This ensured that staff and their families were not affected financially.

Staff required to carry out essential work on Campus during the lock down period were provided dedicated transport from UCT to ensure staff were not exposed to the virus by taking public transport. This continued through Levels 5, 4, 3, and 2. From level 3 of the lock-down, UCT opened for Construction contractors in order to catch up on projects that could not be completed during face-to-face learning. This gave the contractors the opportunity to continue giving employment to at least 50% of their employees for these contractors.

### What lessons have you learned?

One of the greatest lessons learned, was that UCT requires a business continuity and reaction plan for instances that may affect the sustainability of the institution. UCT also needs an emergency coordinating committee to be set up on a full-time basis to ensure readiness to react to any disaster, this includes sudden closure of the Campus due to pandemic, riots, natural disasters or any other reason.

### How do you think your social responsiveness initiatives could be sustained going forward?

Unfortunately, not all initiatives were sustainable due to the financial strain that was placed upon the University . A few of the interventions that were implemented during the Pandemic have been viewed as items that could be continued into the future for Health and Safety for UCT. As mentioned, a central PPE store was opened to order or buy COVID-19 PPE and to be distributed centrally. This can be carried forward in order to ensure quality, and a central record of all PPE Issued. This was also to help reduce the UCT cost of PPE by buying in bulk.

The Personal Health Vulnerability assessment system is currently being redeveloped into an app where this can be used in the future for UCT to carry out pre-employment and annual medicals based on the Job Risk Profile of an employee. The online learning tool will also be used going forward to assist with OHS training for all employees to ensure that OHS education is continued beyond COVID-19.

### Student Initiatives During COVID-19

Group:

UCT Surgical Society

Hundreds of health science students have organised themselves into volunteering groups to assist medical staff at Tygerberg Hospital in Cape Town during the Covid-19 pandemic. From making cloth masks to screening people for the virus, they are putting whatever medical skills and knowledge they have to use. All the while they are adjusting to online learning or the thought of going back into hospitals and clinics. For many, the realities of working as a medical professional have hit home years before they expected it to. For more info, visit YouTube.<sup>14</sup>

### Group: SHAWCO

SHAWCO, the UCT student service organisation, launched an initiative called #BeKindOnline. For more information visit the Daily Maverick.<sup>15</sup>

### Group:

SHAWCO Health

SHAWCO Health, the UCT student service organisation that offers medical services, have stepped up to continue their work in under-resourced communities across Cape Town. For more information, visit the UCT Health website.<sup>16</sup>

<sup>&</sup>lt;sup>14</sup> <u>https://www.youtube.com/watch?v=Z9qI1HwhDUI&feature=youtu.be</u>

<sup>&</sup>lt;sup>15</sup> <u>https://www.dailymaverick.co.za/article/2020-05-25</u>

<sup>&</sup>lt;sup>16</sup> <u>http://www.health.uct.ac.za/news/shawco-health-serving-communities</u>

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