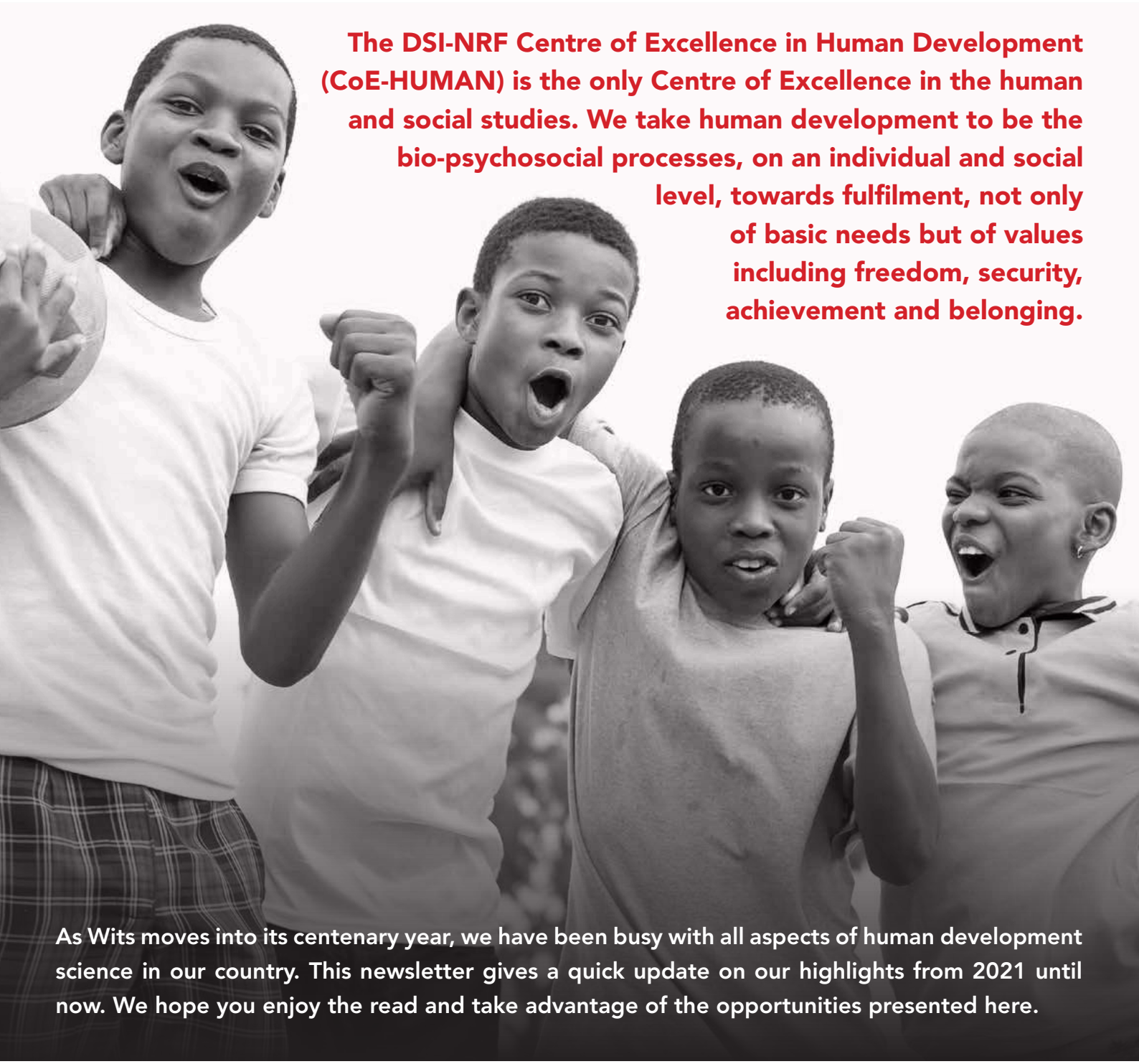
COE-HUMAN • NEWSLETTER

June 2022



The DSI-NRF Centre of Excellence in Human Development (CoE-HUMAN) is the only Centre of Excellence in the human and social studies. We take human development to be the bio-psychosocial processes, on an individual and social level, towards fulfilment, not only of basic needs but of values including freedom, security, achievement and belonging.

As Wits moves into its centenary year, we have been busy with all aspects of human development science in our country. This newsletter gives a quick update on our highlights from 2021 until now. We hope you enjoy the read and take advantage of the opportunities presented here.

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

DSI-NRF Centre of Excellence in Human Development

Individual and Society

science & innovation
Department: Science and Innovation
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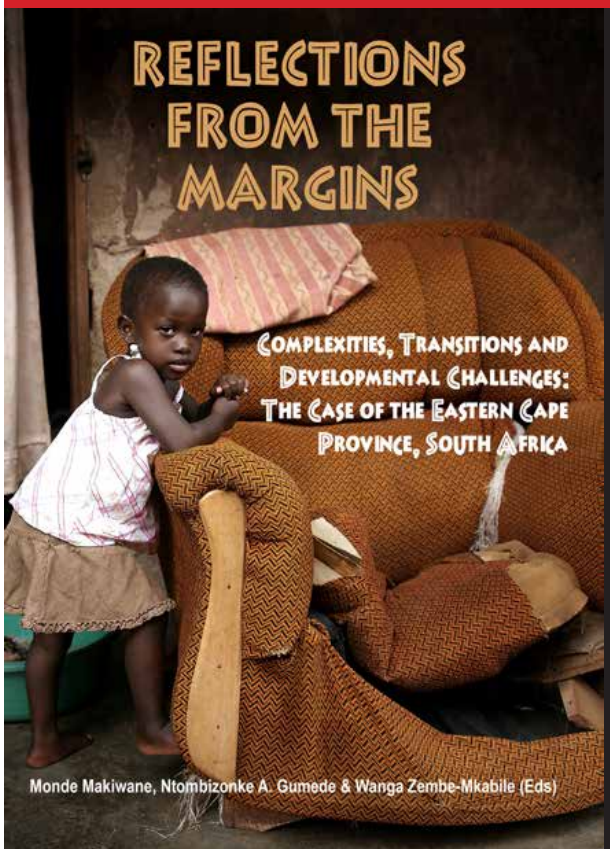

Professor Monde Makiwane published his book: *"Reflections from the Margins: Complexities, Transitions and Developmental Challenges: The Case of the Eastern Cape Province, South Africa."*

The book brings together difference perspectives and realities of the post-apartheid Eastern Cape to provide an in-depth exploration of the developmental dilemmas that the province faces.

Click here to buy the Ebook

CoE-HUMAN South Africa Fast Facts Survey

In June 2021, the DSI-NRF Centre of Excellence in Human Development at the University of the Witwatersrand, conducted a snap online survey (Fast Facts Survey) of 1,000 South Africans across the country, aged between 18 and 55 years. We explored various topical issues impacting quality of life in South Africa. Three reports were released from our findings.

The first report focused on **Covid-19 and vaccine hesitancy**. We found that 70% of participants surveyed indicated that their lives were impacted by the Covid-19 pandemic, with 57% of this group of participants reported the impact was severe. Regardless of age, 58% of respondents indicated their willingness to take a vaccine should it be made available to them tomorrow. However, one in five respondents were unwilling, and another one in five were still undecided to take a vaccine to prevent and reduce serious illness or death from Covid-19. At the time of writing, over 3.3 million vaccine doses had been provided with over 480k citizens fully vaccinated (still at only 0.8% of the population).

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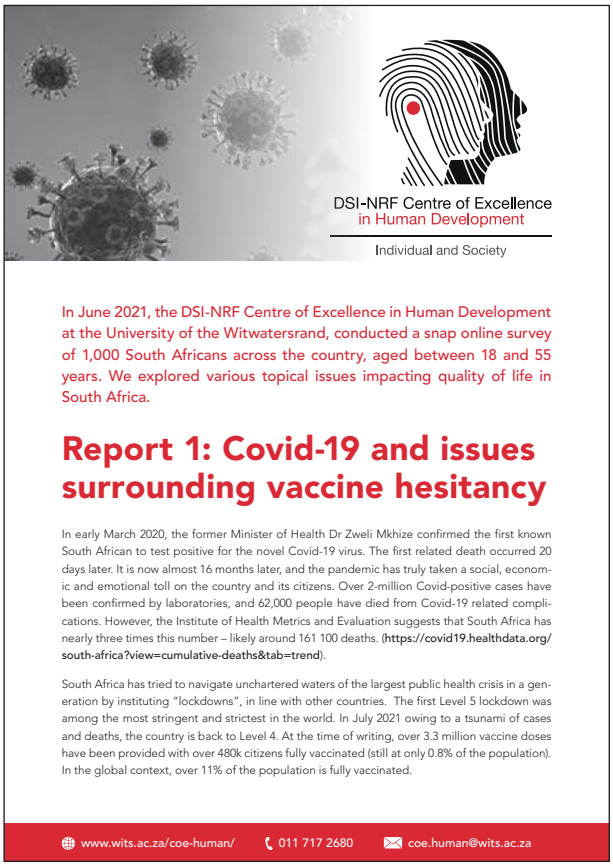

Our second report investigated how South Africans were **coping with food insecurity** through the pandemic. Almost nine out of every ten people in the survey reported that they had changed their diet to cheaper or less preferable foods. Most participants reported employing some type of food rationing strategy in the two weeks preceding the survey – through reducing the number of meals eaten in a day, limiting portion sizes at mealtimes, or redirecting the food available to feed working adults and/or children. Almost a third of the survey participants reported skipping meals completely on some days. Households frequently employed strategies to temporarily either increase food availability (borrowing or buying food on credit) or reduce household demand by sending household members to eat elsewhere or to go beg for food.

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Our final report investigated how South African adults considered their **quality of life** (QoL) to be during the pandemic. We used a short questionnaire developed by the World Health Organization (the WHO-QOL-BREF), which locates physical and mental health, social relationships and environment at the core of how people experience QoL. Overall, half of participants (53%) indicated that their quality of life (QoL) was good or very good. Also, most participants (61%) were satisfied with their health. However, one in three people experienced frequent negative mental strain (stress, anxiety and depression) during the pandemic.

Purpose, self-esteem, living space, energy, enjoyment, social support (family and friends) and having functional critical services (health services) were important enhancers of QoL. While having a less satisfying sex life, poor sleep, economic stress, not feeling safe, and dysfunctional critical services (electricity, water) were factors that diminished South Africans' QoL.

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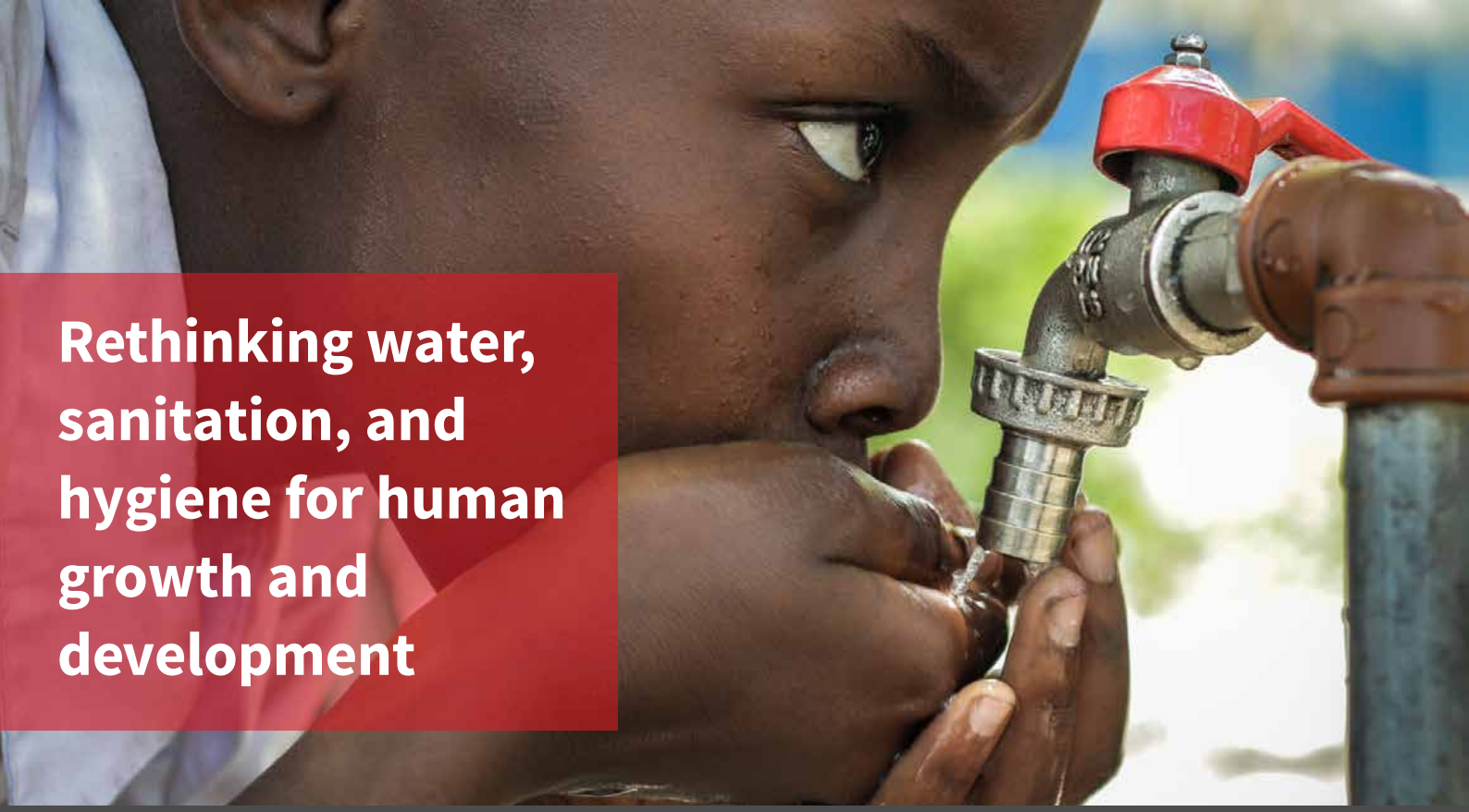

Rethinking water, sanitation, and hygiene for human growth and development

The identification of age appropriate biological outcomes and WASH indicators, while anticipating the timing of life-course suitability of the interventions being operationalised

Conditions in early life can lead to long-term consequences for health and wellbeing. It is therefore important to protect and support growth and development during this time by reducing risks of exposure to infectious diseases, optimising infant nutrition, and stimulating and supporting cognitive and emotional development to avert both short-term (stunting, cognitive functioning) and long-term (non-communicable diseases, human capital) consequences. Links between human growth and development to water, sanitation, and hygiene (WASH) are evident in the UNICEF Conceptual Framework, as well as numerous studies linking WASH and nutritional status, and maternal and child health. These studies have helped summarise the knowledge, gaps and actions needed to reduce infant morbidity and mortality, favouring, amongst others, linear growth/normal growth. Unfortunately, recent findings, evaluating progress made in addressing maternal and child undernutrition have highlighted the lack of progress utilising low-cost water and sanitation interventions on child growth, suggesting that more complex pathways, including the role of environmental enteric dysfunction, and associated chronic inflammation are important factors contributing to persistent growth faltering.

Studies and reports continue to stress the importance of WASH, particularly during the first 1000 days, which demands a shift in how we think about WASH interventions.

Health Outcomes and Intervention Timing

How and when maternal and child biology respond to interventions is a critical point to consider when thinking about optimising and appropriately targeting WASH interventions. Different developmental outcomes in early childhood may be responsive to different stimuli at different ages. The WASH sector needs to re-evaluate its approach for how best to operationalise WASH in service of optimised childhood growth and development, starting with rethinking which health outcomes to consider in the first 1000 days, while remaining mindful of children's biological disposition, and identifying circumstances and relevant WASH indicators sensitive to augmentation.

A recent study in South Africa exploring the effect of early life exposures related to specific WASH risk factors and nutritional status between birth and one year of age, highlighted that various WASH components have differentiated effects at different ages. The biggest impact relating to water was seen to affect weight-for-age (WAZ) around 12 months postpartum, while the greatest impact of hygiene was seen around 1 month postpartum and affected height-for-age (HAZ) and WAZ. Access to safely managed sanitation facilities was critical throughout the first year, and impacted HAZ, WAZ, and weight-for-height (WHZ). This may be indicative of WASH factors, such as sanitation, having a

greater impact on weight, rather than height, during this period of early childhood growth.

We suggest that interventions targeting WASH should, track changes in fat levels throughout infancy and childhood. This results from changes in the environmental causing short term adaptations with long term consequences.

In addition, there is an energy trade-off between growth in height and brain growth during infancy and childhood are made in response to environmental stimuli to protect the growth and development of the brain. Undernutrition in infancy and childhood, and its relative resultant energy deficiency, may therefore trigger adaptive physiological mechanisms prioritising brain growth at the expense of body growth.

There is increasing interest in the hypothesis that WASH interventions may improve, not only growth, but also neurodevelopmental outcomes. The potential impact of WASH on neurocognitive development is suggested to operate through multiple interlinked pathways, including effects on malnutrition, enteropathy, and infection. Poor cognitive, sensorimotor, and socioemotional development are hypothesised to be mediated, in part, through anaemia of chronic disease and stunting, resulting from poor gut health and chronic immune stimulation, in addition to other well-established causes of developmental deficits. Furthermore, WASH may modulate the composition and function of the gut microbiota, thereby also influencing brain development through the microbiota–gut–brain axis. The complexity and heterogeneity in the effects on neural development suggests that a central focus on neural development is required.

For brain growth and neurodevelopment, key developmental stages and milestones should be monitored during infancy and childhood as well as brain growth. For length/height, the first 2 to 3 years is the key period as plasticity is at its peak, after which, length/height is canalised. The benchmark to which the success of WASH interventions should be measured in the first 5 years and pre-pubertal period should therefore be brain growth and development.

Conclusion

WASH is a complex concept, with many components, both individual factors (water, sanitation, and hygiene), as well as within each factor (quality, quantity, access, infrastructure, etc.) all interacting in various environments and at different scales. This highlights the importance of selecting which components and factors are relevant for specific growth and development outcomes to enhance interventions in various contexts, at specific stages in early childhood development.

WASH cannot be the sole solution for solving all the problems relating to childhood growth and development, rather the development of transformative WASH interventions and studies should seek to maximise return on investments by targeting precise growth and developmental outcomes at specific ages. Interventions intending to address issues surrounding WASH in early childhood in service of optimised growth and development would benefit from taking timing into account and identifying specific timeframes in early childhood, and associated WASH factors for intervention.

Reference:

Rethinking water, sanitation, and hygiene (WASH) for human growth and development

D. J. Momberg[1 2], L. E. Voth-Gaeddert[2], L. M. Richter[3], S. A. Norris[2 3], R. Said-Mohamed[1 2]

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Protecting South Africa's Human Capital

How early life adversity can curb our potential for productivity, health and wellbeing

Investment in human capital, both in research and in dollars, has grown in recent decades as we recognise its importance for sustainable economic development and reducing inequality. The World Bank's Human Capital Index (HCI) estimates that globally, children born today will only reach 56% of their human capital potential because of the risks of poor health and education. A child born in South Africa today would reach 41% of their potential productivity as an adult compared to if she would have completed her education and had full health. The pillars of human capital – health and education – must be strengthened to cultivate a skilled, healthy, happy and productive workforce to enhance a country's inclusive economic growth potential. This is especially important in Africa, the youngest continent, with about 70% of our population under the age of 30. Research shows that giving children the best possible start in life is central in developing a country's human capital.

Poor development in childhood could be attributed to the preventable risk factors, such as exposure to violence and neglect. Recent estimates of the economic impact and social burden of exposure to violence in childhood put its cost to South African society at almost 5% of its GDP. However, experiences of violence are rarely the only adversity a child faces. Adversities tend to cluster, and sometimes in discernible patterns, and where one adverse experience is present, there are likely to be others. This accumulation of adverse experiences over time leads to cumulative or toxic stress. The snowball effect of exposure to cumulative adversities could eventually lead to disruptions in physiological stress responses that change how we react to the world around us and hamper our health and wellbeing.

A study entitled "The Long-Term Health and Human Capital Consequences of Adverse Childhood Experiences in the Birth to Thirty Cohort: Single, Cumulative, and Clustered Adversity" was conducted by the DSI-NRF Centre of Excellence in Human Development at the University of the Witwatersrand. The study used data from the Birth to Thirty study which contains comprehensive longitudinal data on a range of exposures and outcomes from birth to age 28. The study aimed to estimate the impact of early life adversity on human capital outcomes. Using the ACEs index – a tally of individual adverse childhood experiences – adjusted for the South African context, the study measured the number and type of adversities experienced in childhood. The ACEs ranged from physical, sexual and emotional

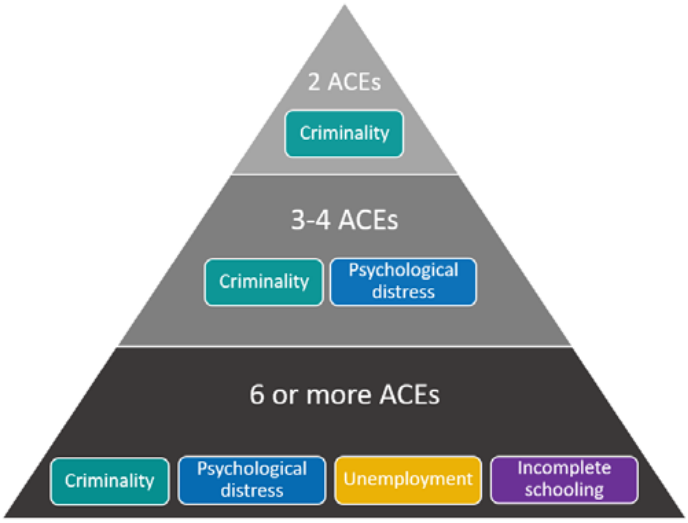

Figure 1: Impact of cumulative ACEs on human capital outcomes

abuse and neglect, to chronic unemployment, substance abuse, exposure to violence and other indicators of household dysfunction. These ACEs were then linked to a selection of human capital outcomes measured when the sample was 28 years old.

Key Finding(s): Exposure to adversity in childhood can be linked to poor human capital in young adulthood, and the more adversity experienced, the greater the risk for poor outcomes. This demonstrates the cumulative effect that multiple adverse experiences have on human capital – as each additional ACE is added to a child's life, their risk for poor human capital increases in a graded manner. Those individuals who experience 6 or more ACEs in childhood have a greater risk for criminality, psychological distress, unemployment and incomplete schooling in adulthood.

Individual ACEs or experiences of a singular type of adversity were also important; these are events or experiences in childhood that can be linked to human capital outcomes independently of all other ACEs. Key Finding(s): (1) **Unemployment** in adulthood was associated with childhood physical abuse, household death, and substance abuse in the home. (2) Individuals who experienced physical, sexual or emotional abuse/ neglect were all more likely to **not complete secondary school**. (3) Individuals who experienced sexual abuse or had chronic levels of unemployment in their home were more likely to be collecting **welfare receipt** in the form of the Child Support Grant. (4) Sexual abuse survivors and those who lived with a substance abuser in the home as a child had a higher risk for **HIV infection**. (5) **Engaging in criminal behaviour in adulthood** was linked to emotional abuse/neglect as a child and exposure to intimate partner violence in the home. (6) Exposure to

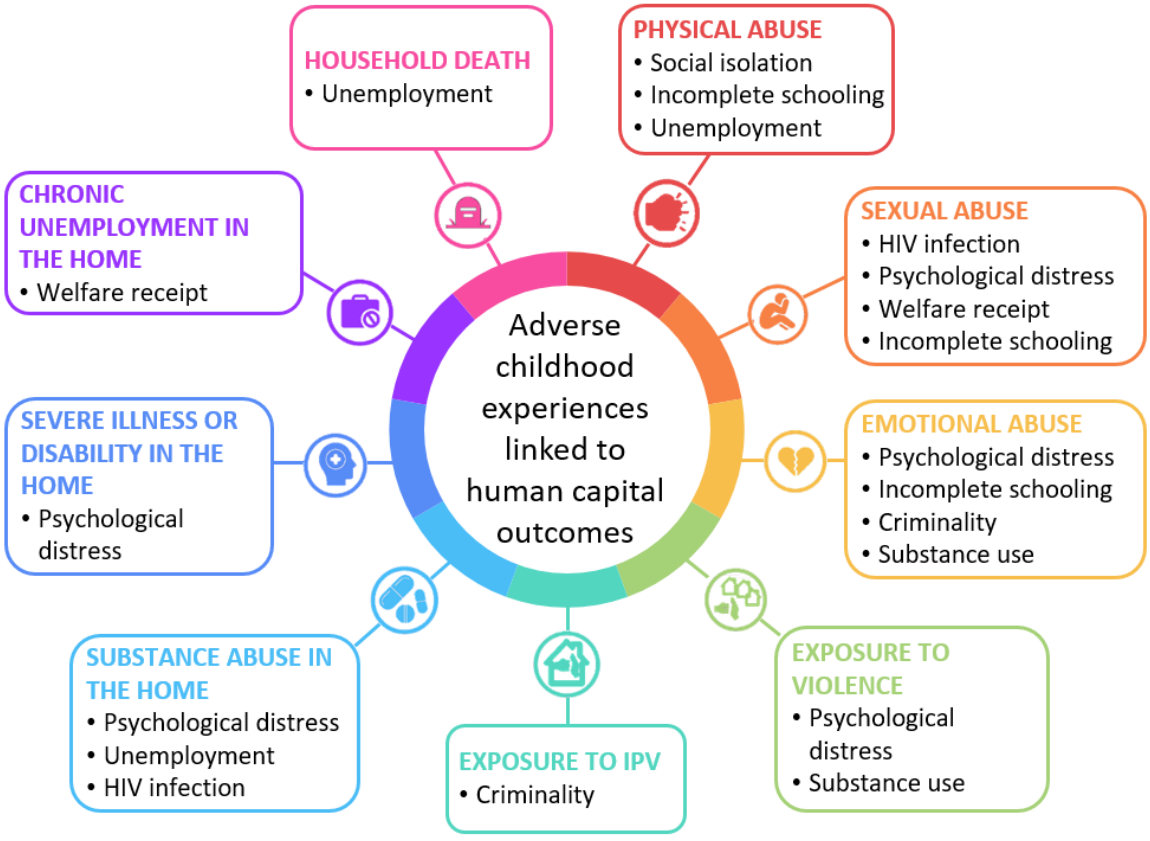

Figure 2: Impact of single ACEs on human capital outcomes

community violence outside the home as a child was linked to **psychological distress** and **substance use in adulthood**. (7) Other childhood adversities linked to **psychological distress** as an adulthood were sexual abuse, emotional abuse/neglect, substance abuse in the home, and severe illness or disability in the home.

Many of these human capital outcomes are directly related to productivity – for example, incomplete schooling and unemployment directly affect an individual's capacity to engage in the labour market. Others are directly related to health and wellbeing but indirectly related to productivity. For example, HIV/AIDs and interpersonal violence are two of the leading causes of years of life lost, or premature mortality, in South Africa. Further, substance abuse and mental health problems, including depressive disorders, are two of the top risk factors for the most disease burden in South Africa that contribute to the country's disability-adjust life years. **Overall, adversity in childhood is linked to unrealised potential in human development.** All of the adversities measured in this study were preventable or treatable. Ensuring that children are protected from abuse, that exposure to violence inside and outside the home is reduced, and that household dysfunction is mitigated can lead to healthy, happier, and more productive young adults. A recent Lancet study[1] charting human capital development since 1990 shows South Africa's slip from 129th to 144th in 2018 out of 195 countries, and along with other countries in this bottom quartile, experienced 50% less annual growth in their GDP. Investing in human capital is the key to unlocking South Africa's individual potential and subsequent economic growth. While health and education are the cornerstones of human capital, social protection from a range of adversities that allow children to grow in safe, secure, stable and loving environments will help them reach their full potential. The experiences that undermine our human development have their greatest effect in our childhood. And these effects are most easily, cost-effectively, and sustainable reversed in our earliest years.

Reference:

The Long-Term Health and Human Capital Consequences of Adverse Childhood Experiences in the Birth to Thirty Cohort: Single, Cumulative, and Clustered Adversity

Sara N. Naicker[1], Marilyn N. Ahun[2,3], Sahba Besharati[4,5], Shane A. Norris[1,6,7], Massimiliano Orri[8], and Linda M. Richter[1]

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1 Lim, S. S., Updike, R. L., Kaldjian, A. S., Barber, R. M., Cowling, K., York, H., ... & Murray, C. J. (2018). Measuring human capital: a systematic analysis of 195 countries and territories, 1990–2016. The Lancet, 392(10154), 1217-1234.

DOHaD Africa Training Event

In March 2022, senior science faculty and African PhDs/Postdocs from over 10 countries gathered under one roof at the Stellenbosch Institute for Advanced Study's (STIAS) Summer School – under the theme "Developmental Origins of Health and Disease: Consolidating Theory into Practice. This was a partnership between STIAS, the DSI-NRF Centre of Excellence in Human Development at the University of the Witwatersrand (CoE-Human) and the DOHaD Africa Chapter.

Highlights:

Can digital intervention address maternal and child health?

While communication is intended to be disseminated amongst communities, they are often excluded from the innovation and implementation of these interventions. This has resulted in interventions that are not relevant to specific communities. Dr Melissa Densmore, an associate professor at the University of Cape Town (UCT) believes in including the community in issues that affect them.

Dr Densmore is part of the CoMaCH network and project that recognises the importance of empowered community members who are able actively to participate in the design of interventions intended to benefit them and their communities. Through this "co-design approach", researchers are hoping to design new approaches. Maternal and child health challenges require this collaborative effort to advance, she argued.

Dr Densmore's work looks at intersections between people and computing. Although she believes her work is microscopic, it is necessary in the current times seeing that everybody is engaging in digital intervention in one way or another. Her research seeks to answer questions about the determinants of digital conventions and how to redesign technology to better involve communities. Dr Densmore acknowledges the shift from how people learn from posters and flyers to now, which involves communicating messages through digital platforms such as social media. However, there are barriers to these methods. For instance, Twitter, albeit highly rated, has a character limit which could limit what can be said or is used by a certain South African demographic. She stressed the need for digital literacy and the need for devices that are mindful of the needs of low-income countries.

Decolonising Global Health

Zoe Mullan is a biochemist by profession who after a few years pursued publishing. She has been the Editor-in-Chief at The Lancet Global Health for more than two decades. Mullan's work among many others is to decolonise global health through the dissemination of health information. "Global health has large structural issues, part of which includes, the introduction of tropical medicine by Europeans and subsequently, power structures that remain [to this day]," she argued.

Mullan said scientists need to be part of the project to decolonise global health, through small — yet significant —acts of allyship such as declining journal articles that write about a country without including authors of that particular country. She is well aware of her positionality as a "gatekeeper to the correct science" because her role includes identifying the most important work and putting it out there.

She argued: "To decolonise global health is to remove all forms of supremacy within all spaces of global health practice, within countries, between countries, and at the global level. Supremacy is not restricted to white supremacy or male domination…Supremacy is there, glaringly, in how global health organisations operate, who runs them, where they are located, who holds the purse strings, who sets the agenda, and whose views, histories, and knowledge are taken seriously."

Reformed endocrinology: The new frontier for reversing disease?

Dr Ankia Coetzee is in the business of hormones which she defines as "chemical messengers that send signals in our bodies". Dr Coetzee thinks of herself as a "reformed endocrinologist" who uses conventional medicine, especially in the field of diabetes during pregnancy to proactively eliminate diseases rather than react to

them. According to her, a conventional endocrinologist is trained to be reactive whilst a reformed endocrinologist is more proactive in terms of reversing diseases. Dr Coetzee said her work, especially in the field of diabetes and pregnancy, has sought to be proactive side. She takes on a preventative approach to lower the rates of cardiovascular and non-communicable diseases.

A spotlight on emerging scientists

A practical aspect to the capacity-building at the Summer School was through healthy competition. Participatory learning, through the form of two competitions saw young researchers showcasing their own research and abilities in science communication.

Famelab

Dr Mary Moyana-Silubonde was the winner of the Famelab, which was inspired by the popular international competition to find and support the world's most talented new science communicators. Moyana is a post-doctoral fellow at the University of Witwatersrand who prides herself in work done to alleviate anaemia in disadvantaged communities. Her research looks at anaemia diagnosis among women from disadvantaged backgrounds. Iron deficiency is the most common micronutrient deficiency worldwide and the major cause of anaemia. In South Africa, haemoglobin is measured to screen for iron deficiency but low levels of haemoglobin are only a late stage indicator of iron deficiency and need to be adjusted for altitude as recommended by the World Health Organization. Moyana-Silubonde recommends that South Africa should adopt the adjustment of haemoglobin for altitude to avoid underestimation of iron deficiency and missing women in need for intervention. The prize was a fully funded trip to Vancouver to attend this year's International Developmental Origins of Health and Disease (DOHaD) congress. If you wish to join Mary in Vancouver, check out the links for the congress programme and registration on the following page.

Dragon's Den: Science edition

One of the best ways to transfer knowledge from a faculty of experts to emerging scientists was through the Dragon's Den. Emerging scientists pitched their project proposals for mock funding. In groups, scientists had to compete against one another to explain why their proposed project deserved to win a set amount of funding. This was an opportunity for the experts to transfer knowledge to the emerging scientists, around the loop holes that they could possibly amend in order to win real funding in real life projects. Through this challenge, a journal article set to be published in The Lancet was consolidated with the winners of the competition. Together with a team of experienced researchers, the young scientist will author the paper, which investigates vaccine hesitancy in Africa.

To stay notified of upcoming opportunities, join up with free membership to DOHaD Africa.

This is a virtual network launched in 2019, connecting over 400 scientists, clinicians, epidemiologists and biologists across the continent, with the aim to improve the health and well-being of Africans and disseminate information to advance DOHaD science. DOHaD Africa has used its virtual capacity to reach scientists within and beyond the parameters of Africa and to share opportunities for funding, collaboration and training.

For details and FREE REGISTRATION go to the DOHaD Africa website: **DOHaD African Chapter**

DOHaD World Congress – Vancouver, Canada on August 27-31, 2022

This year's theme 'Social and Environmental Disruptions in DOHaD: Successful Interventions for a Healthy Future' is highly topical and relevant to global health and well-being. The sub-themes at the congress capture the breadth of the Developmental Origins of Health and Disease field from basic science and clinical research, to social science and policy.

DOHaD WORLD CONGRESS 2022
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CLICK HERE FOR MORE INFORMATION AND REGISTRATION.

Achievements

Professor Richter, the founding director of the CoE-Human, was honoured with the NRF's most prestigious award; the Lifetime Achievement Award. The award is given to those who have made extraordinary contributions of international standard and impact to science in and for South Africa over an extended period, where their work has touched and shaped the lives and views of many South Africans. Also in 2020, Prof. Richter was awarded the Distinguished Professors Programme Award from Wits for high-calibre academics. To date, the institution has appointed a total of 27 Distinguished Professors.

The CoE-HUMAN is truly honoured to recognise its founding Director and colleague, Prof. Linda Richter for her numerous achievements.

Click on the video links below for more:

Science collaborations with University of Limpopo and University of Mpumalanga

Within the last year, CoE-Human has also been busy building our national collaborations. With the University of Limpopo, we partnered with Dr Eric Maimela and team to investigate the effects of food insecurity, malnutrition and teenage pregnancy on pregnant and parenting adolescents' mental health needs. The research will take place in Limpopo and inform strategies for mental health support for pregnant and parenting teenagers.

We have also been to University of Mpumulanga to partner with Professor Geoffrey Mahlomaholo and colleagues. Their research will investigate the skills gaps reported by youth and local employers in Mpumalanga and assess how evidence-based interventions may close these skills gaps to increase youth employment within university graduates and non-graduate youth in the community.

Qualitative Research Skills Training Webinar Series

This 6-part series was orchestrated and recorded by CoE-Human and is now available to anyone interested in qualitative health research in African settings. Its mission is to share experiences respectfully and constructively, advance methodological discussions, promote networking and support qualitative researchers. All six learning resources to the qualitative seminar series are available on our website and take the learner through basic to more complex levels of skill. **Click here to access the series.**

Quantitative Research Skills Training Webinar Series

Following the success of the Qualitative webinar series, we have developed another six-part series which teaches key concepts in statistical application, using a fast-track method and application. The first of these webinars will take place on:

Thursday, 30 June 2022
@ 14:30pm CAT
Host: Dr Lukhanyo Nyati

CLICK HERE TO REGISTER

CoE-Human Annual Progress Report is out for 2021

Our annual progress report is now available showcasing the impact the CoE-Human has had on science, students, and the communities we reach, and throughout a year where the pandemic continued to wage a war on human development outcomes nationally and internationally. **CLICK HERE TO READ THE REPORT**

The Local Health Investment Network Project

The Wits Health HUBB and The Village Well have partnered to deliver a project funded by the Presidency's Social Employment Fund. After an application process that started in December 2021, and culminated in March 2022, the HUBB and its partners has secured a R16.5 million grant to employ up to 1 000 health volunteers in the City of Johannesburg, Rustenburg and Boitekong in the North West Province for short term work in health promotion in their local communities.

The project will include accredited training in home-based care, research skills training, community-based planning with local health stakeholders and health promotion activities in households and through community events. More importantly research on the impact of these activities on the healthy behaviour change of the participants themselves and community will be conducted. It is envisaged that a network of health promoters that can link ill people to public health care will be spurred through these activities.

Over the next 9 months, the Wits Health HUBB will be communicating the progress of this project as well as the impact in our communities.

Four Master's scholarships in Health Sciences at the University of Witwatersrand

In partnership between the DSI-NRF Centre of Excellence in Human Development and the SAMRC Developmental Pathways for Health Research Unit (DPHRU) four Master's scholarships are available for students to work on various topics focusing on **non-communicable diseases (NCDs) across the life course (from preconception to adulthood)**. The students will work on existing databases involving study populations from multiple cohorts in South Africa.

Successful candidates will need an honour's degree or equivalent; required to register for their degrees within the School of Clinical Medicine at the University of the Witwatersrand full-time. Experience in the fields of health and biological sciences (e.g., medicine, physiology, and public health), social sciences, psychology, medical statistics or any other related discipline is required.

Deadline for submission: 15th July

Scholarship details:

- Full-time registration fees paid
- 1 year duration
- Johannesburg-based
- R150 000 (tax free) per annum stipend

Applicants are requested to submit the following:

1. A covering letter indicating your suitability for the position in relation to the selected research project (max 500 words)
2. Curriculum vitae with references (max 2 pages)
3. Certified copy of your SA ID book
4. Certified copies of your qualifications.

Only applications that include the above requirements will be considered. Applicants should submit their documents to Justin Du Toit; **email: justin.dutoit@wits.ac.za**

Opportunities

The MRC/Wits Developmental Pathways for Health Research Unit has a postdoctoral research fellowship available to work on the Healthy Life Trajectories Initiative (HeLTI). HeLTI is a programme of research to generate evidence that will inform national policy and decision-making around preconception health as an intervention opportunity to optimise young (18-28 years) women's physical and mental health in order to establish healthier trajectories for themselves and future offspring, and to offset health risks, such as obesity. This programme is also being implemented in Canada, China and India. In South Africa, the HeLTI site in South Africa is Soweto, and the study is called *Bukhali*, which means smart / powerful in isiZulu, with the catchphrase of 'Living your best life'.

The focus of this postdoctoral fellowship will be work on the quality of implementation of the *Bukhali* intervention and control arms, to provide training, and work with the trial team on quality improvement initiatives. There will be opportunities to lead and contribute to publications based on this work.

Fellowship details:

- Full-time
- 2 years duration
- Johannesburg-based
- R300 000 per annum (tax free)
- Experience working on a randomised controlled trial or large-scale intervention study is required.
- Experience in training (preferably group-based) is required, and can be in the field of health promotion, education, or another related field.
- Expertise in mixed methods and experience with community-based intervention research are preferable.
- Completion of PhD (submission and examination) is a requirement for eligibility.

Applicants should submit a CV and cover letter to catherine.draper@wits.ac.za

CoE publications 2022

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