

CONCEPTUAL FRAMEWORK OF THE DSI-NRF CENTRE OF EXCELLENCE IN HUMAN DEVELOPMENT

Working paper 2020

1. Founding values

The CoE-HUMAN is the only DSI-NRF Centre of Excellence established in the human and social studies. It takes 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** (Alkire, 2002). From this point of view, human development refers simultaneously to the development of individuals across their lifespan from conception to death, inter-generational development through families, and socioeconomic development of individuals and groups through interactions with, among others, state provisions and supports.

The study of human development puts people at the centre stage of our national concerns and emphasises the importance of opportunities to lead full lives of one's own choosing (Streeten, 1994). Child and family health and wellbeing, across time and in context, are at the heart of human development, enabled by state provisions for health, education and protection to ensure economic and social security.

The CoE-HUMAN has co-opted Amartya Sen's theory of development, which highlights the **expansion of capabilities**. This is the idea that:

“The purpose of development is to improve human lives by expanding the range of things that a person can be and do, such as to be healthy and well-nourished, to be knowledgeable, and to participate in community life. Seen from this viewpoint, development is about removing the obstacle to what a person can do in life, obstacles such as illiteracy, ill-health, lack of access to resources, or lack of civil and political freedoms” (Fukuda-Parr, 2003).

Human development is dynamic. For this reason, the CoE-HUMAN strives to understand the historical material and social conditions that currently thwart human development in South Africa, as well as the conditions required to achieve the fulfilment to which we all aspire.

The CoE-HUMAN supports research that studies the past, present and future. This requires a multi- and inter-disciplinary approach, across social, psychological, biological and public health disciplines.

The vision of the CoE-HUMAN has been to identify, support and produce excellent research, expand research capacity through training and networking, and make findings available in service of human development in South Africa and beyond. We see ourselves as an asset of the human and social studies communities in South Africa and we endeavour to serve South Africa, the ideal of the CoE mechanism, and science and scholarship both locally and internationally.

1.2 The development and refinement of the human development approach

The concept of human development has long been conceptualised in the academic disciplines of psychology, education etc for some time before it surfaced in United Nations literature. However, the United Nations Development Programme officially introduced a human-centred approach to development in its seminal Human Development Report of 1990. It states:

“Human development is a process of enlarging people's choices. In principle, these choices can be infinite and change over time. But at all levels of development, the three essential ones are for people to lead a long and healthy life; to acquire knowledge; and to have access to resources needed for a decent standard of living. [...] Additional choices, highly valued by many people, range from political, economic and social freedom to opportunities for being creative and productive, and enjoying personal self-respect and guaranteed human rights. [...] Human development has two sides: the formation of human capabilities such as improved health, knowledge and skills - and the use people make of their acquired capabilities - for leisure, productive purposes or being active in cultural, social and political affairs. If the scales of human development do not finely balance the two sides, considerable human frustration may result. [...] Development must, therefore, be more than just the expansion of income and wealth. Its focus must be people.”

United Nations member states have since committed to provide feedback on their own human development aims and achievements using the Human Development Index (HDI) as a tool. The HDI is a composite index focused on three basic dimensions of human development: the ability to achieve a decent standard of living assessed by Gross National Income per capita; the ability to lead a long and healthy life assessed by life expectancy at birth; and the ability to acquire knowledge measured by the mean and expected years of schooling. The HDI is the globally-accepted measure of achievement in the basic dimensions of human development.

Other indices calculated are:

- The Inequality-adjusted Human Development Index (IHDI): The IHDI combines a country's average achievements in health, education and income with how those achievements are distributed among country's population by “discounting” each dimension's average value according to its level of inequality.
- Gender Development Index (GDI): Gender Development Index (GDI) The GDI measures gender gaps in human development achievements by accounting for disparities between women and men in three basic dimensions of human development—health, knowledge and living standards using the same component indicators as in the HDI.
- Gender Inequality Index (GII): is a metric introduced by United Nations Development Programme (UNDP) in 2010 that shows the percentage of potential human development loss due to gender inequality and ranges from 0 representing “no lost opportunity” to 1 representing complete opportunity loss.

The Millennium and Sustainable Development Goals (MDGs and SDGs): Although Millennium Development Goals and Sustainable Development Goals are not included in the HDI, they too are oriented to human development. Therefore, they can be considered as a set of instruments too.

2. Neglected dimensions of the human development approach

The human development approach is centred primarily on the individual, with limited capturing of the structural and systemic factors that aid and limit human development. Families, communities and nations provide the conditions which determine individual opportunities and choices.

In that regard, Stewart (2019) identified four neglected domains of human development:

- Social institutions (families, communities, associations/NGOs) and social norms influencing behaviour.
- Political struggles and conflicts.
- Economic strategies, which underpin political decision-making. Stewart (2018) recommends identifying the negative effects of capitalism and to explore “alternative economic models, strategies and organisational forms.”
- Environmental issues that determine how individuals find and develop resources.

3. Aim of the DSI-NRF Centre of Excellence in Human Development

A central aim of the CoE-HUMAN has been to marry the analytical and creative academic disciplines to hard science so that a cogent, multi-faceted scholarship on human development forms. This aim is derived from the CoE’s core mandate to concentrate existing capacity and resources to enable researchers to collaborate across a variety of disciplines and institutions on projects that are locally relevant and internationally competitive.

The CoE-Human promotes excellence in research through publications and postgraduate and postdoctoral supervision and mentorship. Research themes

In its first five years the DSI-NRF CoE-HUMAN recognised that the first thousand days of life and the childhood period are critical developmental periods with long-term and intergenerational impact on individuals’ mental and physical health. The infancy and childhood period in the life-course constitute the foundation of human capital and human development. Topics of interest have included:

- Child growth and human development
- Parenting and families
- Mental health and well-being
- Violence
- Livelihoods

The research themes of the first phase were:

3.3.1. Life-course development

Life-course development covers the development of individuals from conception to death. Therefore, broad topics such as child growth, health and development have been investigated. Study areas include childhood cognitive and social development, physical growth and health. In addition, the roles that nutrition, family and school nurturing care, home environments, and poverty have on child growth, health and development have been explored in this theme.

With the growing research showing that mental health has long-term biological effects on a person's life, the CoE-HUMAN has enhanced and supported mental health networks, development of technologies, skills development, and projects, with the aim of improving wellbeing across the life-course.

3.3.2. Intergenerational development

Inter-generational development covers the life cycle from one generation to another and includes studies of parenting, families and inter-generational influences. The CoE-HUMAN, cognisant of the effects of South Africa's political and socioeconomic history on family structures, has supported research projects, conferences/workshops, and national surveys to understand the current structures and dynamics of families. In particular, the care of children in the home and family environment has been analysed in light of gender relationships and identities, fathers' involvement, circular migrations, and/or social support provided or enabled by the state.

3.3.3. Socio-economic development

Socio-economic development covers the attainment of improved living conditions, both material and non-material through health, education, social security, food security and decent employment. The physical and material security of individuals and communities has been a persistent challenge in South Africa.

Research topics have included the consequences of violence on human development in South Africa. The impact of violence on individual's physical and mental health has been investigated in rural and urban studies supported by the CoE-Human. Our supported studies have shown that young adults are amongst the most exposed to violence.

Livelihood strategies in South Africa have also been a topic of interest. A key coping strategy for instance, is for marginalised populations to construct a diverse portfolio of activities and social support capabilities. Projects supported by the CoE-HUMAN have focused on the informal economy and migrating populations.

3.3.4 Transformational development

Transformational development covers aspirations and values that influence and are influenced by, amongst others, individual and group identity. South Africa is more affectionately known as the rainbow nation because it is made up of so many diverse cultures and religions, including Zulu, Xhosa, Pedi, Tswana, Ndebele, Khoisan, Hindu, Muslim, and Afrikaner people. Furthermore, the South African Constitution prescribes first generation rights to all inhabitants regardless of race, religion, sexual orientation, social class, political affiliation etc. In this context, issues of identity and citizenship are critical to the study of human development.

The history of apartheid and its effects on the individual, the family and social roots remain relevant in South Africa. The CoE-HUMAN has supported research that looks at historical issues of identity formation in South Africa and its neighbours, while being cognisant of the dynamic and fluid aspects of culture and identity.

4. Critical outputs of the first phase

The first phase made a deliberate effort to ensure its research and public engagement efforts achieved specific outputs covered below.

4.1 Innovation and methods

A key objective of the CoE-HUMAN has been to cultivate innovation and methodology to support internationally competitive social science. The study of change is at the heart of the approach fostered at the CoE-HUMAN. Activities supported by the CoE-HUMAN have used longitudinal or repeat data platforms to provide a life-course perspective on individuals and a historical context of communities. The CoE-HUMAN promoted the combination of longitudinal and cross-sectional analyses, and the integration of quantitative and qualitative methods. Interesting projects have included:

- Conceptual debates on issues related to the study of human development. Dr Michael Gastrow's project, "The Square Kilometre Array Telescope and Human Development", and Prof Vusi Gumede's project, "Towards a better understanding of human development in South Africa", are examples.
- Neuroscientific imaging to bridge gaps between social and psychological constructs in neurodevelopment. Dr Sahba Besharati's project, "Brain matters seminar series: The past, present and future of neuroscience in Southern Africa", highlights this.
- Experimentation and collaboration in the use and diversification of digital platforms for data collection. Dr A Van Heerden's project, "Using diverse digital data sources to map the impact of obesity and pregnancy on activities of daily living", is an example.

4.2 Evaluation and policy

The DSI-NRF CoE-HUMAN has supported several activities that seek to:

- Develop evaluation expertise
- Develop network and techniques needed to inform and influence policy makers
- Host dissemination roundtables
- Foster media and digital technologies for greater science engagement.

Activities supported the DSI-NRF CoE-HUMAN and in relation to each theme outlined are briefly presented in the Appendix 1.

5. Vision for the DSI-NRF Centre of Excellence in Human Development (2019-2025)

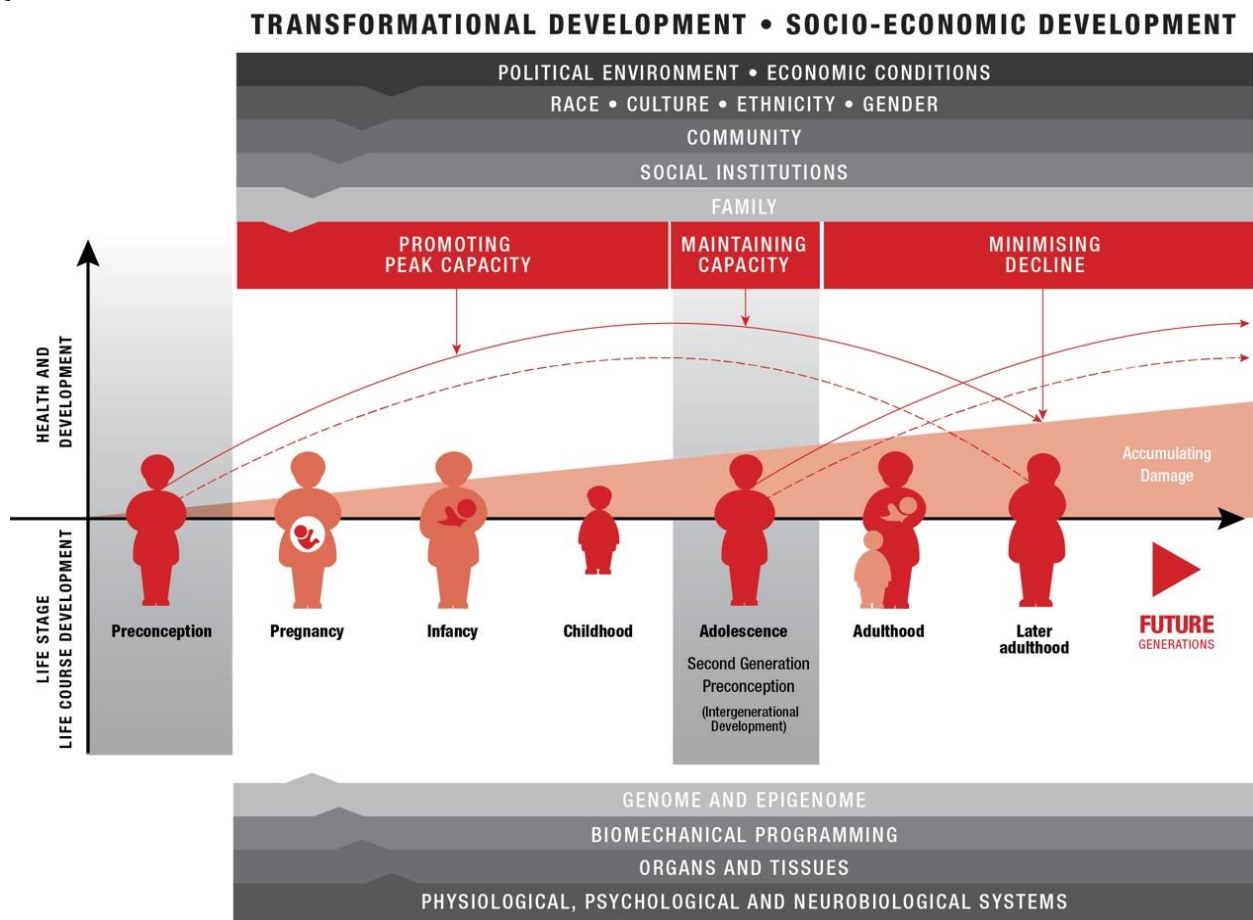
5.1 The second phase

The CoE-HUMAN will remain a virtual academic platform that concentrates existing resources; connects academic and policy actors in the field of human development; and funds researchers, students, public engagement activities and networking activities. The CoE-HUMAN deals with the stages of individual development, from preconception to late adulthood and the interaction between dynamic contexts and bio-behavioural processes of human development. Context in this case refers to the social embedding of the individual which necessitates the study of biographical, historical, and ecological

variables that impact on the individual across the life course. This approach seeks to unpack new avenues of research and public engagement that offer deeper understanding of how dynamic views of context and the individual, including biological dimensions interact to influence holistic well-being.

Therefore, in addition to the bio-psychosocial and bio-cultural approaches, the CoE-HUMAN envisions human development as a three-dimensional matrix: the first dimension being the life-course stages from infancy to late adulthood, the second dimension being the influence of the social context on the life pathway, and the third dimension being the critical themes/challenges for human development in South Africa and beyond. The CoE-Human sees value in being a unique source of evidence-based information, and an essential network in the field of human development in South Africa.

Figure 1: Conceptual Framework for Human Development



5.2 CoE-HUMAN's Pathway to Innovation and Impact

Part of the vision of the CoE-HUMAN is to position itself and be recognised as a key partner and instrument for questions related to human development in South Africa, Africa and low- and middle-countries elsewhere. To achieve this ambitious endeavour, it is necessary to interrogate the following:

1. What are the main challenges that thwart human development in South Africa which we have the comparative advantage to tackle?

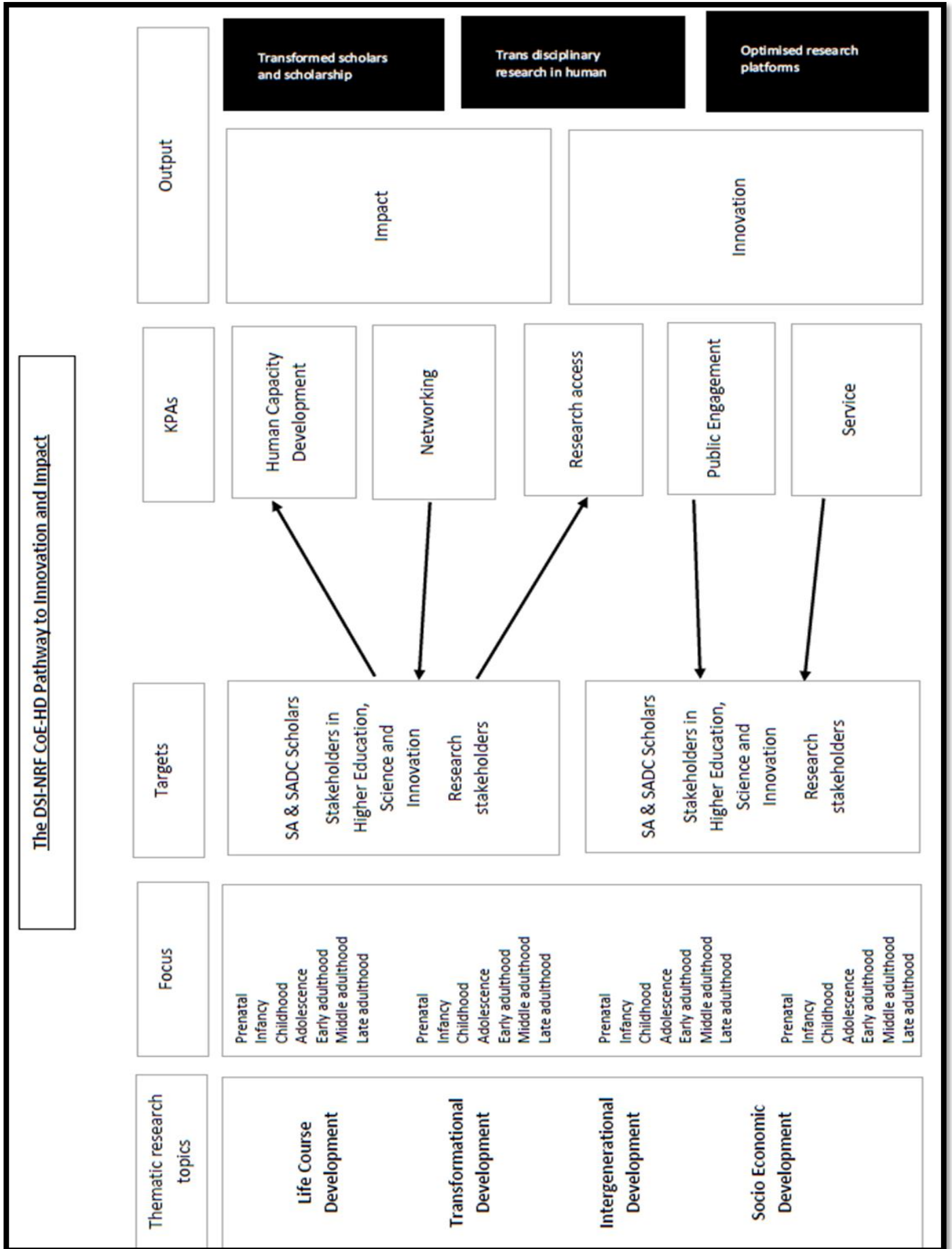
2. What resources and platforms exist in South Africa that require promotion and further development in order to facilitate credible human development research, and what role can the CoE-HUMAN play in this regard?
3. What are the best processes required for the CoE-HUMAN to draw fundamental human development questions from the research and networks it supports, to feed and drive its impact and innovation?
4. What strategies should be implemented to consolidate, support and maintain national and international networks built through the auspices of the CoE-HUMAN?

The CoE-HUMAN, as a critical partner in the higher education, science and innovation sector, seeks to use its resources to promote impactful science and public engagement while developing a transformed scholarship in South Africa's human development researchers. This will be achieved in the following ways:

- Conducting and funding solutions-driven and applicable research aligned to its thematic areas.
- Ensuring that research topics cover the full scope of the life course, including prenatal, infancy, childhood, adolescence, early adulthood, middle adulthood and late adulthood.
- Targeting South African and SADC scholars in human development research, stakeholders in higher education, science and innovation, as well as the broader community affected by human development research.
- Developing a critical mass of Masters, PhD and Post-Doctoral researchers that are aligned to the South African government's transformation agenda.
- Supporting high impact academic scholarship.
- Promoting access to data platforms such as NIDS, Birth-to-Twenty Plus, SAPRIN, SASAS as well Nationally Representative Surveys such as NHS, DHS, CS, Time Use etc for students and researchers conducting human development research.
- Promoting greater networking with policy makers in South Africa and SADC regions interested in human development research.
- Servicing the South African policy making, policy research and policy advocacy community with critical outputs of research conducted under the auspices of the CoE-HUMAN.
- Supporting incremental, disruptive and radical innovation through research and development.

The graphic below. **Figure 2**, depicts the CoE-HUMAN's pathway to impact:

Figure 2



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Appendix

Appendix 1: Themes and activities supported by the DSI-NRF Centre of Excellence in Human Development

Themes	Sub-themes	Activities
Child growth, health and development		<ul style="list-style-type: none"> • Research projects <ul style="list-style-type: none"> • Executive function in Childhood • Physical activity • Growth, intellectual capacity and tenacity • Interaction between nutrition, infection, the home environment and care practices and their impact on growth and development in infants • Children's early understanding and subjective experiences of poverty: Interventions to challenge messages they internalize • Reports <ul style="list-style-type: none"> • Child Gauge 2015, 2017 • Conferences/Workshops supports <ul style="list-style-type: none"> • 2nd World Breastfeeding Conference 2016 • Saving Brains Cohort Collaborators Meeting (cognitive/executive functions)
Parenting and families		<ul style="list-style-type: none"> • Research projects <ul style="list-style-type: none"> Children in South African Families Migration, gendered familial bonds, economic and social development Low-income fathers' involvement in parenting • Reports <ul style="list-style-type: none"> • Child Gauge 2018: Children, Families and the State: Collaboration and contestation • State of South Africa's Fathers Report • Conferences/Workshops supports <ul style="list-style-type: none"> • National symposium on Sexual Orientation and Gender Identity • Re/Location:Dis/Location: Migration, Culture and Public Health (Drama for life) create dialogue about the significant role drama, theatre and performance can play in human development, human rights, social justice and social transformation.

Themes	Sub-themes	Activities
Violence		<p>Research project: Gugulethu-Manenberg: Longitudinal Violence in resource deprived environment in Youth (12-18yrs)</p> <ul style="list-style-type: none"> • Critical Violence and Trauma Studies Initiation Project • "We Are Not Equal": Apartheid Survivors on Socioeconomic Drivers of Violence in Post-Apartheid South Africa • Reconceptualizing a violence framework for South Africa
Mental health and well-being		<p>Research project:</p> <ul style="list-style-type: none"> • Differential susceptibility to adversity and interventions, combining genetic, psychological and social methods • Mental disorders, executive function and children's development
Livelihoods		<p>Research projects:</p> <ul style="list-style-type: none"> • Livelihoods in the informal economy: analysis of the South African informal sector over a relatively long period of time, to better understand current changes and dynamics • Migration, identities, and trans-continental linkages: Studying the Indian diaspora in South Africa. This study aims to understand the changing patterns of migration, employment and livelihoods in cities of the global South, and their implications for structuring workers' relationship to the geographies of their work and residence
Innovation and methods	Conceptual debates on issues related to Study of Human Development, including nature and methods of human development (with WISER)	<p>Research projects:</p> <ul style="list-style-type: none"> • Human development impact of the Square Kilometre Array telescope in South Africa, with the aim of opening up a new empirical front in the inquiry into social aspects of science • Why South Africa's level of human development has not significantly improved • The evolutionary biology of human development and health workshops • Towards a Unified Biopsychosocial Narrative-Science of Human Development in the Context of Social Adversity in South Africa. This project addresses the reality that human biological development, especially the development of brain and behaviour in the context of socioeconomic adversity, can only be properly comprehended in its psychosocial context.
	Neurosciences imaging to bridge gaps social and psychological constructs in neurodevelopment and epigenetic	<ul style="list-style-type: none"> • Brain Matters symposia • Upgrade of the 3 tesla (3T) brain scanner based at the newly launched Nelson Mandela Children's Hospital in Johannesburg to enable the rapid expansion of neuroimaging research • The parental brain study

Themes	Sub-themes	Activities
	Experimentation and collaboration in the use and diversification of digital platforms for data collection	<ul style="list-style-type: none"> Using diverse digital data sources to map the impact of obesity and pregnancy on activities of daily living
	Increased capacity for longitudinal analyses	<ul style="list-style-type: none"> Intergenerational epidemiology: Understanding the links between growth, development and health across three generations in the Birth to Twenty Plus Cohort. The Siyakhula Cohort: Linking longitudinal demographic, health and environmental data to a rural South African child development dataset Interaction between nutrition, infection, the home environment and care practices and their impact on growth and development in infants
Evaluation and policy	Develop evaluation expertise	<ul style="list-style-type: none"> Youth development policies and practices in a South African metropolitan municipality What lessons can be learned from successes and challenges in implementing the White Paper on Families in South Africa?
	Develop network and techniques needed to inform and influence policy makers	<ul style="list-style-type: none"> Initiating, Strengthening and Training Research Networks in Family Demography (I-STARNFD) project. An international training and research network to strengthen capacity in family demography in sub-Saharan Africa Navigational capacities in contexts of adversity: Establishing a consortium of global of South youth scholars. (COGSYS) South African Sociological Association Annual Congress. This project brings together the DSI-NRF CoE-HD and selected sociology doctoral students to gain skills needed to complete their PhDs.
	Host dissemination roundtables	<ul style="list-style-type: none"> Civil Society Report to the UN Convention on the Rights of the Child 2015. The Community Law Centre worked with organisations and individual experts in South Africa's children's sector to develop a civil society alternative report to the UN Committee on the Rights of the Child (UNCRC) on South Africa's progress on implementing children's rights.
Foster communication technologies for assimilation		<ul style="list-style-type: none"> Framing early child development messages in South Africa. The FrameWorks Institute is a non-profit communication think tank that uses the Strategic Frame Analysis (SFA) approach to identify which elements of communications might prove most useful for greater impact on public thinking (FrameWorks Institute, 2002).

Prof. Linda Richter's research granted under the auspices of the CoE-HD.

Themes	Sub-themes	Activities
Child growth, health and development	Early childhood development	<ul style="list-style-type: none"> • Testing the added benefits of pregnancy ultrasound for child development • INEQUALITY BEGINS EARLY: Pregnancy outcomes and human development in the first two years of life
Policy, programmes and institutions	Early childhood development	<ul style="list-style-type: none"> • 2016 Lancet Series "Advancing Early Childhood Development: From Science to Scale" • Programmatic guidelines for the effective implementation of interventions to improve the developmental outcomes of young children affected by HIV and Aids • Early Childhood Development: Counting Down to 2030 • Monitoring, evaluation and learning for CABA initiative • Longitudinal perspectives on violence in the lives of children • Integrating ECD and Option B+ in Malawi: Developing an Optimized, Sustainable Model
	Policy advocacy	<ul style="list-style-type: none"> • Positioning the Graça Machel Trust ECD response in Strategy 2017-2021 • UCLA Center for World Health/Partners in Hope Malawi ECD Proposal • Dissemination of the Nurturing Care Framework and Review of advertising of breastmilk substitutes • To review evidence and make a presentation on the relationship between marketing of breastmilk substitutes and the impact on breastfeeding practices and to review a research protocol examining the infant feeding practices of mothers working in the informal sector
Adolescent growth, wellbeing and development		<p>Research Project: Individual attitudes and community norms in gender disparities in adolescent health and wellbeing: Case studies of obesity among young women and violence among young men in South Africa</p>