THE ASPEN)INSTITUTE

**GLOBAL OPPORTUNITY** YOUTH NETWORK

THE FUTURE IS YOUNG

GLOBAL OPPORTUNITY YOUTH HEALTH PATHWAYS

HEALTHCARE LANDSCAPE ASSESSMENT

**AUGUST 2020** 











### TABLE OF CONTENTS

1.		
2.	EXECUTIVE SUMMARY	6
3.	REPORT OBJECTIVES	8
4.	HEALTHCARE IN SOUTH AFRICA	9
5.	GLOBAL OPPORTUNITY YOUTH HEALTH PATHWAYS	14
6.	ASSESSMENT METHODOLOGY	16
7.	SOUTH AFRICA'S HEALTH CARE VALUE CHAIN	19
8.	EMPLOYMENT ENTRY PATHWAYS	22
9.	UNDERSTANDING THE HEALTHCARE DEMAND	23
10.		
11.	MARKET DEMAND FOR HEALTHCARE SKILLS	43
12.		
13.		
14.	THE BUSINESS CASE	51
15.	VALUE PROPOSITION	59
16.	KEY STAKEHOLDERS	60
17.	RECOMMENDATIONS AND QUICK WINS	61
18.		
19.		
20.	APPENDIX	64

### **TABLE OF FIGURES**

Figure 1 GOYN communities across the globe	14
Figure 2 GOYHP objective	15
Figure 3 Landscape assessment methodology	17
Figure 4 Key players segment split by percentage	17
Figure 5 Key players by sub-segments	18
Figure 6 Healthcare value chain	20
Figure 7 Organisations by subsegments at national level	23
Figure 8 Organisations by subsegment at a KZN level	35
Figure 9 University students enrolled per faculty in 2018	48

## 1. GLOSSARY OF KEY TERMS

Key Term	Definition			
4IR	Fourth Industrial Revolution			
AIDS	Acquired Immunodeficiency Syndrome			
BB-BEE	Broad-Based Black Economic Empowerment			
вро	Business Processing Operations			
COVID	Corona Virus Disease			
CRAM	Coronavirus Rapid Mobile Survey			
СНЖ	Community Health Worker			
CSI	Corporate Social Initiative/Investments			
DCSTs	District Clinical Specialist Teams			
DHET	Department of Higher Education and Training			
DOH	Department of Health			
DOT	Directly Observed Treatment			
ETI	Employment Tax Incentive			
HBC Home Based Careers				
HIV	Human Immunodeficiency Virus			
нмі	Health Market Inquiry			
HWSETA	Health and Welfare Sector Education and Training Authority			
ISHP	Integrated School Health Programme			
KZN	KwaZulu-Natal			
GOYN	Growth Opportunity Youth Network			
GOYNHP	Growth Opportunity Youth Network Health Pathways			
NDP	National Development Plan			
NICD	National Institute for Communicable Diseases			
NGO	Non-Governmental Organisation			
NHI	National Health Insurance			
NLRD	National Learners' Record Database			
NPO	Non-Profit Organisation			
NSF	National Skills Fund			

NYS	National Youth Service				
отс	Over the Counter				
ΟΥ	Opportunity Youth				
РНС	Primary Health Care				
PPE	Personal Protective Equipment				
PPGI	Public-Private Growth Initiative				
PYEI	Presidential Youth Employment Intervention				
RWOPS	Remuneration of Work Outside Public Sector				
SA	SA South Africa				
SDL The Skills Development Levy					
SETA	Sector Education and Training Authority				
STEM	Science, Technology, Engineering and Mathematics				
тв	Tuberculosis				
TVET	Technical and Vocational Education and Training				
WHO	World Health Organization				
YES	Youth Employment Services				
YHA	Youth Health Africa				

### 2. EXECUTIVE SUMMARY

South Africa's health system is plagued by numerous systemic challenges, inhibiting its ability to support the country's demand for health-related services. As with other facets of South African society in 2020, access to and allocation of healthcare resources is quite unequal. The disparities in the distribution of human resources in health between the private and public sector is a serious concern, as the public sector is inadequately resourced.

South Africa has two major national issues: Firstly, the highest HIV prevalence worldwide, with the demographic most affected being young black women<sup>1</sup>. Secondly, a youth unemployment rate of approximately 58.2% <sup>2</sup>. Unemployment in the South African context is often the result of a social trap; young people are unable to get jobs because they lack skills and experience, and in turn unable to gain skills and experience because they can't secure a job.

The World Health Organization (WHO) estimates that by 2030 there will be a global shortage of approximately 18 million health workers resulting in an annual cost of USD 500 billion, and the gap is not only in primary care<sup>3</sup>. Growing populations, rising consumerism, and changing disease profiles are driving demand in allied health jobs, such as pharmacy technicians that rarely require a tertiary degree but can be extremely challenging to fill.

Traditionally, health skilling systems prepare students for a job hierarchy of doctors, nurses, care assistants, and allied health professionals. Investments in health skilling have largely focused on the top of the hierarchy, with less attention to junior workers and allied health. By investing in quality, demand-driven skilling for the latter groups, Global Opportunity Youth Health Pathways (GOYHP), which is being spearheaded by the Aspen Institute's Global Opportunity Youth Network, aims to support communities in addressing the twin challenges of supplying growing youth populations with quality, career-based employment opportunities while alleviating strain on health systems.

As a starting point to this effort, this landscape assessment aims to define, mobilize and activate pathway offshoots to parallel employing sectors to initiate a multiplier effect that will enable allied health placement programmes in South Africa to achieve economies of scale.

Health is dynamic, complex and opportunity-rich, providing a significant proportion of jobs worldwide and contributing to greater workforce productivity and improved learning outcomes. This landscape assessment provides a view of the potential employment and career progression opportunities for Opportunity Youth across the within the healthcare value chain. Assessment findings highlight that the highest percentage of organisations in the healthcare sector fall within the production segment of the healthcare value chain with distribution segment having the least percentage of key players in the industry.

Organisations in the value chain offer various skills development entry avenues such as graduate programmes, internships, apprenticeships and corporate social investment (CSI) upskilling initiatives. Skills in demand in the healthcare value chain are healthcare services skills, community health worker skills, digital health skills, manufacturing skills, distribution skills and customer service and sales skills.

There is an opportunity to upskill Opportunity Youth at entry level roles over a period of two years in the following prioritized parts of the allied health value chain: Intermediary Services, Health Services, Digital Health, Supply Chain, Manufacturing, Customer Services.

These key initiatives would fast track the process of beginning the skills development for youth through:

• Partnering with corporates and other organisations to create employment opportunities

<sup>&</sup>lt;sup>1</sup> <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3660381/</u>

<sup>&</sup>lt;sup>2</sup> https://tradingeconomics.com/south-africa/youth-unemployment-rate

<sup>&</sup>lt;sup>3</sup> <u>https://www.who.int/hrh/resources/global\_strategy\_workforce2030\_14\_print.pdf?ua=1</u>

- Deliberate recruitment of youth
- Work readiness programme
- Trainings and development days
- Supporting the youth during the implementation of the programme
- Support youth in searching and finding absorption and permanent employment

### 3. REPORT OBJECTIVES

The objective of this landscape assessment is to better understand the breadth of available employment opportunities in allied healthcare that Opportunity Youth could be eligible for, as well as the employment pathways that would enable OY to not only secure employment of those jobs, but to progress their careers beyond entry level. The results of this analysis will be used to inform the Global Opportunity Youth Network's approach to moving Opportunity Youth into meaningful careers in formal employment within the industry at scale. This assessment provides:

- An analysis of the current healthcare demand through a review of all opportunities available in the market and in the future.
- The current state of healthcare in South Africa
- Options on how to connect Opportunity Youth to demand-driven skilling, jobs and livelihoods in the health sector.
- An overview of the barriers in the healthcare sector by focusing on the cause and effect of the skills gap and workforce shortages on the industry.

#### The assessment aims to answer the following key questions:

- 1. What entry level opportunities exist within the allied healthcare value chain?
- 2. What growth opportunities are available for entry level Opportunity Youth?
- 3. What are the skills required for entry level opportunities?
- 4. What is the overarching market demand for the skills identified and where does that demand overlap across the value chain?
- 5. Where are there skilling gaps and shortages, and what are the drivers of those gaps?
- 6. Who are the players in the healthcare value chain that could potentially absorb Opportunity Youth?
- 7. What are the long-term healthcare employment opportunities that pathway approaches should focus on?

### 4. HEALTHCARE IN SOUTH AFRICA

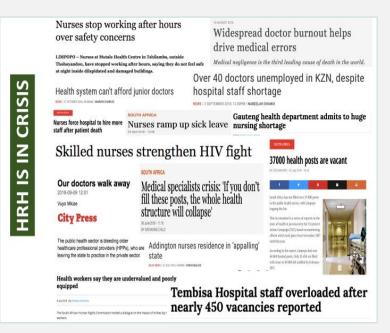
South Africa is a country of many contrasts. On one hand, it is the most industrialized nation on the continent, boasting the single most diversified economy and a ranking of the second most competitive country in Africa on the Global Competitive Index<sup>4</sup>. In sharp contrast to this strategically advantageous backdrop, South Africa has the highest prevalence of HIV worldwide, as well as the highest national unemployment and youth unemployment rates in the world<sup>5</sup>. Pre-COVID, the national unemployment rate sat at 23%, and youth unemployment at 59%<sup>6</sup>. As of Q1 2020 the official unemployment rate fell from 30.1% to 23.3% in Q2 2020<sup>7</sup>. While these two socio-economic challenges are often looked at in silos, they are inherently interlinked. Unemployed youth are more likely to engage in high-risk sexual behaviour, and young girls between 15 to 24 have the highest incidence of HIV infection.

South Africa's health system is plagued by numerous systemic challenges too, inhibiting its ability to support the country's demand for health-related services. Health related job posts are inadequately funded and maldistributed relative to demand; service delivery planning is sporadic and reactive; and clinicians are usually over-worked, posing safety concerns for both facility staff and patients. It is observed that persistent strains on financial resources do prevent junior doctors from being absorbed into the public health sector, exacerbating these challenges and pushing highly qualified graduates further towards the poverty line. Furthermore, as with other facets of South African society in 2020, access to and allocation of healthcare resources is quite unequal. Half of the country's registered doctors serve approximately 80% of the general population, with the remainder serving a small segment of the population with access to private medical care. According to the South African Department of Health Human Resources, there are more health professionals per 10,000 people in the private sector than in the public sector<sup>8</sup>.

The WHO estimates that by 2030 there will be a global shortage of approximately 18 million health workers<sup>9</sup> resulting in an annual cost of USD 500 billion<sup>10</sup>. Growing populations, rising consumerism, and changing disease profiles are driving demand in allied health jobs, such as pharmacy technicians, that rarely require a tertiary degree but can be extremely challenging to fill.

Yet describing the challenge as a "shortage" can be misleading. In fact, many low-income countries are training large and growing numbers of health workers.

Outdated skilling curricula and misplaced incentive structures that pay on **seats filled** rather than **jobs placed** are creating a disconnect between worker supply and the real demands of the health economy. Simply increasing the number of students trained,



without addressing systemic issues around curriculum quality, professional development of faculty, worker compensation, and perception of health work, will do nothing to bridge the health access gap.

<sup>&</sup>lt;sup>4</sup> http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf

<sup>&</sup>lt;sup>5</sup> <u>https://www</u>.avert.org/professionals/hiv-around-world/sub-saharan-africa/south-africa

<sup>&</sup>lt;sup>6</sup> https://tradingeconomics.com/south-africa/youth-unemployment-rate

<sup>&</sup>lt;sup>7</sup>https://www.google.com/search?q=unemployment+rate+in+south+africa+2020&rlz=1C1GCEB\_enZA915ZA915&oq=unemployement+rate&aqs=chrome.3.69i5 7j0I7.7978j0j7&sourceid=chrome&ie=UTF-8

<sup>&</sup>lt;sup>8</sup> South Africa Department of Health – Human Resources for Health Strategic Plan - <u>https://www.hst.org.za/publications/NonHST%20Publications/hrh\_strategy-</u> 2.pdf

<sup>&</sup>lt;sup>9</sup> https://www.who.int/hrh/news/2019/call-to-action-addressing18million-health-worker-shortfall.pdf?ua=1

<sup>&</sup>lt;sup>10</sup> https://www.weforum.org/agenda/2019/07/5-ways-to-bridge-the-global-health-worker-shortage/

COVID-19 has brought a new wave of urgency to the country's triple challenge of HIV, unemployment, and health service disparity. The National Income Dynamics Study (NIDS)<sup>11</sup> Coronavirus Rapid Mobile Survey (CRAM) estimates that approximately 3 million people in South Africa lost their jobs between February 2020 and April 2020 as a result of the COVID-19 pandemic – a decline of 18% in employment. A large majority of the total population affected comprise of already disadvantaged women, youth and less educated people. Women alone accounted for 2 million job losses, **more than 66% of the national total**.

Women alone accounted for 2 million job losses, more than **66%** of national total

The pandemic has also highlighted the fragile state of South Africa's healthcare system. Shortages in critical COVID response resources have highlighted the vast gaps in the healthcare system and where the opportunities lie. Laboratory services are experiencing shortages in the supply of testing kits and reagents for coronavirus testing resulting in a limited amount of coronavirus tests being conducted<sup>12</sup> in addition to a backlog. These testing kits are imported from international suppliers<sup>13</sup> and logistical reasons, amongst others, are causing delays in their delivery, which result in supply not meeting demand. Chronic healthcare staff shortages have been a healthcare issue for a while, and this has been articulated widely with methods and strategies to address this issue for guite some time now, however the issue persists despite these efforts. The additional strain on healthcare services has further highlighted how urgently this shortage needs to be attended to. Lastly, the infrastructure required - from basic provisions such as hospital beds to ventilators and personal protective equipment (PPE) – have all been reported to be inadequate to care for COVID-casualties. The South African Ministers of Health and Trade, Industry and Competition had noted the urgent need for ventilators<sup>14</sup>. These factors have contributed to exacerbating the stress on an already strained healthcare sector that has responded to the pandemic through importing resources to ease the strain. Donations from other nations as well as local production<sup>15</sup> has had to be implemented to fill the demand. Additional capacity was required by the local healthcare sector which was still operating separately to meet the country's demand for healthcare services in response to COVID-19 treatment. This led to government making provision for additional capacity through temporary beds and COVID specific treatment facilities that were created to handle the additional demand arising from COVID infected patients<sup>16</sup>. The stimulation of the local production to meet the demand for resources has created a new demand in the healthcare value chain although these could be met by incumbents in the manufacturing sector.

> While many jobs and livelihoods have come to a halt and may remain obsolete in a post-COVID global economy, new opportunities and needs are also emerging. The pandemic has forced healthcare providers to accelerate prospects of telemedicine, engage youth in healthcare service delivery and rethink how both COVID-specific and non-COVIDspecific services can be layered onto existing adherence and health maintenance programmes.

<sup>&</sup>lt;sup>11</sup> <u>https://cramsurvey.org/wp-content/uploads/2020/07/Spaull-et-al.-NIDS-CRAM-Wave-1-Synthesis-Report-Overview-and-Findings-1.pdf</u>

<sup>&</sup>lt;sup>12</sup> https://www.medicalbrief.co.za/archives/mkhize-sa-faces-a-critical-shortage-of-test-kits-and-reagents/

<sup>&</sup>lt;sup>13</sup> <u>https://www.polity.org.za/article/sharp-drop-in-covid-19-testing-due-to-test-kit-reagent-shortage-2020-05-27</u>

<sup>&</sup>lt;sup>14</sup> <u>https://za.usembassy.gov/press-release-the-united-states-provides-ventilators-to-south-africa-to-battle-covid-19/</u>

<sup>&</sup>lt;sup>15</sup> https://www.iol.co.za/business-report/economy/south-africa-produces-its-first-ventilators-to-fight-covid-19-6bdac336-b795-4429-91f3-74e529a448ae

<sup>&</sup>lt;sup>16</sup> <u>https://sacoronavirus.co.za/2020/07/10/increasing-bed-capacity-in-the-midst-of-the-covid-19-peak/</u>

To remain resilient in the face of the pandemic, governments, communities and youth, must re-imagine and redefine jobs and livelihoods and think of creative ways to channel the energy, skills and potential of youth populations into emerging growth areas and the country's recovery effort. Central to this is a reimagining of how traditional health skilling systems source, skill, specialize, and incentivize future healthcare professionals – from allied health workers up to specialty medicine. With the global health sector poised as one of the largest and fastest-growing industries in the world (with an anticipated valuation of 10 trillion USD by 2022) this reimagined future is certainly within reach<sup>17</sup>.

Traditionally, health skilling systems prepare students for a job hierarchy of doctors, nurses, care assistants, and allied health professionals. Investments in health skilling have largely focused on the top of the hierarchy, with less attention to junior workers and allied health. By investing in quality, demand-driven skilling for the latter groups, Global Opportunity Youth Health Pathways (GOYHP), an initiative of the Aspen Institute's Global Opportunity Youth Network, aims to support communities to address the twin challenges of supplying growing youth populations with quality employment and alleviating strain on health systems.

### 4.1. National Department of Health Future Plans

The National Department of Health (NDOH) has outlined specific goals in line with the National Development Plan for 2030. The overarching goal that measures impact is to "increase the average male and female life expectancy to at least 70 years".

The goals that have an impact on healthcare human resources and skills development are aligned to Sustainable Development Goal 3: *Ensuring healthy lives and promoting wellbeing for all at all ages.* This involves substantially increasing health financing and the recruitment, development, training and retention of the health workforce in developing countries, as well as progress on:

- Goal 6: Completing health systems reforms
- Goal 8: National Health Insurance Universal Health Coverage achieved

Goal 6 and 8 will be achieved through the following inputs goals:

- Goal 6a: Strengthening the District Health
   System
- Goal 7: Primary healthcare teams providing care to families and communities
- Goal 9: Filling posts with skilled, committed and competent individuals

### 4.2. Human Resources for Health

To address the discrepancies in human resources for health the following priorities for health will be addressed over the next five years as noted in the National Development Plan (NDP) Implementation Plan 2019-2024<sup>18</sup>:

- a) Develop and implement a comprehensive strategy and operational plan to address the human resources requirements, including filling critical vacant posts for full implementation of universal health care (NHI).
- b) Expand the primary health care system by strengthening the Community Health Worker Programme that consists of 50,000 community health workers integrated into the public health system.
- c) Consolidate nursing colleges ensure one major nursing college per province with satellites campuses. These provincial facilities should orientate their curriculum towards more practical work at the patient's bedside.
- d) Strengthen and expand the Nelson Mandela Fidel Castro Programme to supplement the production of much-needed medical practitioners and other health professionals. At the same time, expanding local capacity, and training platform at all levels of the health system with infrastructure, equipment and personnel to increase the intake of medical students for local training.

# 4.3. National Health Insurance implementation and implications on healthcare skills

The National Health Insurance (NHI) is a health financing system that is designed to pool funds together to provide access to quality and affordable personal health services to all South Africans based on their health needs, irrespective of their socio-economic status. It is a fund that will pay for health care for all South Africans, there will be no fees charged at the health facility because the NHI fund will cover the costs of an individual's care.

The first five years of NHI will include pilot studies and strengthening the health system in the following areas:

- 1. Management of health facilities and health districts
- 2. Quality improvement infrastructure development
- 3. Medical devices including equipment
- 4. Human Resources planning, development and management
- 5. Information management and systems support
- 6. Establishment of an NHI Fund.

The National Health Insurance is crucial for increasing employment and improving the working conditions in the health sector. Health professionals are at the core of ensuring the NHI operates effectively. A major threat to the success of the NHI is the unequal distribution of health professionals in the private and public sector between the urban and rural areas. One of the governments focus areas, in preparation for NHI, is increasing numbers of health professionals who provide services, training and undertake research. Evidence shows that adequate numbers of well-distributed healthcare workers with the right skills mix results in improved coverage of essential health services and an overall improvement in key health outcomes. The pooling of resources, through the NHI Fund, will also improve working conditions in the public health system by providing the equipment and other health supplies required for decent working conditions.

The NHI white paper<sup>19</sup> envisages that Primary Health Care (PHC) will be the heartbeat of the NHI. The PHC services will include health promotion, integrated school health programme (ISHP), disease prevention, curative (acute and chronic clinical) services, rehabilitation and palliative services driven by district clinical specialist teams (DCSTs). At the present time, however, public health professionals are not currently trained to meet the needs of PHC and there are an inadequate number of training posts.

### 4.4. The impact of technology on healthcare

In the midst of a rapidly changing technology landscape and as the rest of the world becomes digital, the healthcare industry is following suit. According to Get Smarter, the Health Information technology market is projected to reach 297 billion USD by 2022<sup>20</sup>. The South African health industry is seeing a greater need for individuals who have IT backgrounds with some medical knowledge and experience as the industry embarks on its digital health journey.

Strengthening information systems will be prioritized by the National Department of Health (NDOH) over the next five years. The department aims to develop a streamlined, integrated information system for decision-making in support of implementation that will remove duplication at all levels.

Digital health skills are in demand globally and there are shortages of resources with these skills in the public and private healthcare sectors in South Africa. The National Digital Health Strategy is driving the creation of a digital health workforce and highlights that digital health is expected to be a significant driver of health system transformation, and beyond that, economic development.

The workforce of the future needs to be skilled in areas like enhanced technology, machine learning and artificial intelligence. Technological innovation will impact the healthcare labour force. It will improve working conditions by providing assistance on, and optimization of, difficult and repetitive tasks, and it will require more highly skilled and technologically trained personnel.

For the success of the digital health initiative, digital health human capital is critical for its implementation. New skills and approaches are required for existing resources as well as a new IT skilled staff. The skills in demand will help in the development of coding, system diagnosis, data optimisation, system coordination, system billing, system upgrades of infrastructure and architecture and automation amongst others. The new skills are also expected to help in creating programmes, smart devices and unleashing the Fourth Industrial Revolution (4IR) in the health field.

### 4.5. Long term future healthcare career prospects

Below is a global view of the jobs that are forecasted to be in demand by 2026 within the health care industry<sup>21</sup>:

- 1. Home health aides
- 2. Physician Assistants
- 3. Nurse anaesthetists, midwives and nurse practitioners
- 4. Physical therapy/aides
- 5. Genetic counsellors
- 6. Medical assistants
- 7. Occupational therapy assistants/aides
- 8. Massage therapists
- 9. Phlebotomists (draw blood for testing purposes).

<sup>&</sup>lt;sup>20</sup> https://www.alliedmarketresearch.com/healthcare-information-technology-market

<sup>&</sup>lt;sup>21</sup> https://www.monster.com/career-advice/article/10-jobs-growth-decade-health-care

### 5. GLOBAL OPPORTUNITY YOUTH HEALTH PATHWAYS

The Global Opportunity Youth Network is a multi-stakeholder initiative committed to creating place-based systems shifts for youth economic opportunity. Working in communities around the world to create sustainable economic pathways that increase income for "Opportunity Youth" - those aged 15-29 who are out of school, unemployed, or working in informal jobs. Launched in 2018, the network has established six GOYN communities in five countries around the globe.



Figure 1: GOYN communities across the globe

GOYN is working with community leaders impacted by COVID-19 to achieve the twin goals of saving lives and livelihoods by connecting unemployed youth to safe, sustainable training and employment pathways inside, and adjacent to, the healthcare system. Simultaneously, GOYN seeks to initiate a broader shift that will provide demand-driven skilling for a wider range of jobs across the health protection supply chain to better meet the needs of communities and the broader health economy. To achieve this goal, GOYN is working with actors across three of its community ecosystems to map existing and emerging jobs and livelihoods pathways in and around the health system and then recruit, train and connect young people to work and income earning opportunities.

Responding to a surge in demand for community health workers in eThekwini to support the national response to COVID-19, GOYHP has the opportunity to place 100 youth in community health-based internships in eThekwini. This opportunity could serve as an optimal opportunity to formalize community health skilling and employment pathway to extend permanent, post-internship employment opportunities to sectoral jobs that go above and beyond community health work.





# 01.

Map and target health system training and employment pathways

02.

Recruit & Train youth

Figure 2 GOYHP objectives



Place youth into jobs in and around health system

### 5.1. Piloting Health Pathways in KwaZulu Natal

KwaZulu Natal (KZN) has the highest number of HIV infections in South Africa, with approximately 2,029,470<sup>22</sup> people living with HIV/AIDS across the about province. Based on clinical expertise, people of any age who have serious underlying medical conditions especially those who are immunocompromised might be at higher risk of life-threatening complications from COVID-19<sup>23</sup>. The number of people infected with COVID-19 in KZN has exceeded 110 000<sup>24</sup>. This accounts for around 18% of the total infections in South Africa, the second highest statistic following Gauteng.

Rural areas in South Africa are historically underserved in public services like healthcare. This is true for KwaZulu-Natal too. There is an unequal distribution of healthcare workers between the well-resourced private sector and the poorly resourced public sector. The shortage of healthcare resources is often driven by poor working and living conditions, inadequate salaries and benefits, lack of training and career development opportunities, inadequate recruitment, poor retention and staff mismanagement amongst others<sup>25</sup>.

On the other hand, eThekwini has some ripe opportunities for growth. eThekwini is the second largest economy in the country with the third largest population size<sup>26</sup>. In addition, its current strategic assets include Special Economic Zones, local catalytic projects and a business enabling environment. Further, the municipalities' future and environmental plans are expected to create more than 750 000 jobs in its key sectors<sup>27</sup>. Lastly, eThekwini has above average literacy rates and is the net exporter of educated labour as 75% of youth are willing to relocate for better employment and earning opportunities<sup>28</sup>.

<sup>&</sup>lt;sup>22</sup> https://www.spotlightnsp.co.za/2019/08/05/graphs-that-tell-the-story-of-hiv-in-south-africas-provinces/

<sup>&</sup>lt;sup>23</sup> https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html

<sup>&</sup>lt;sup>24</sup> https://www.gov.za/speeches/minister-zweli-mkhize-confirms-total-611-450-cases-coronavirus-covid-19-24-aug-2020-0000

<sup>&</sup>lt;sup>25</sup> https://www.who.int/hrh/resources/improving\_hw\_performance.pdf

<sup>&</sup>lt;sup>26</sup> http://www.durban.gov.za/Documents/Invest\_Durban/Economic%20Development/3.pdf

<sup>&</sup>lt;sup>27</sup> http://www.durban.gov.za/City\_Government/City\_Vision/IDP/Documents/Final%202018\_19%20IDP.pdf

<sup>&</sup>lt;sup>28</sup> http://www.durban.gov.za/City\_Government/City\_Vision/IDP/Documents/IDP2019\_2020.pdf

### 6. ASSESSMENT METHODOLOGY

As outlined in the previous section, South Africa's healthcare sector is vast, diverse, and unevenly distributed; so too are the employment opportunities present within the ecosystem. In order to sustainably tackle youth unemployment rate as well as the skills shortage in healthcare, it is imperative to consider all the opportunities present within the segments that form part of the healthcare value chain. These include employment opportunities which require specialization in healthcare services and those not directly health related, but critical to supporting demand in the healthcare industry. This assessment provides:

- A view of the healthcare demand through a review of all opportunities available in the market. This was
  done through conducting a desktop research of healthcare organisations with operations in South Africa
  who could potentially absorb Opportunity Youth into formal employment and play a role in skills
  development.
- An analysis of the current market demand and what it could be in the future. The assessment further identified the current skills required across the healthcare value chain.
- Opportunities to connect Opportunity Youth to demand-driven skilling, jobs and livelihoods in the health value chain.
- An overview of the barriers in the healthcare sector by focusing on the cause and effect of the skills gap and workforce shortages on the industry.

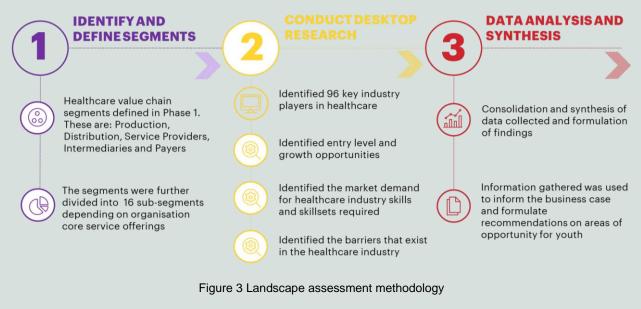
The methodology used for the landscape assessment included data collection sourced from a combination of primary and secondary research. It also included data gathering and analysis of more than 120 organisations operating in South Africa's health sector, 54 of those with a footprint in KwaZulu-Natal.

#### **RESEARCH QUESTIONS:**

The landscape assessment used a combination of primary and secondary research. The aim of the desktop exercise was to identify the entry level opportunities available within the healthcare industry for South African youth. The assessment addressed the following key questions:

- What entry level opportunities exist within the allied healthcare value chain?
- What growth opportunities are available for entry level Opportunity Youth?
- What are the skills required for entry level opportunities?
- What is the overarching market demand for the skills identified and where does that demand overlap across the value chain?
- Where are there skilling gaps and shortages, and what are the drivers of those gaps?
- Who are the players in the healthcare value chain that could potentially absorb Opportunity Youth?
- What are the long-term healthcare employment opportunities that pathway approaches should focus on?

The final number of organisations identified with potential to provide Opportunity Youth with formal employment and contribute to youth skills development amounts to 96 across South Africa.



"A total number of 120 organisations were assessed across the South African healthcare industry"

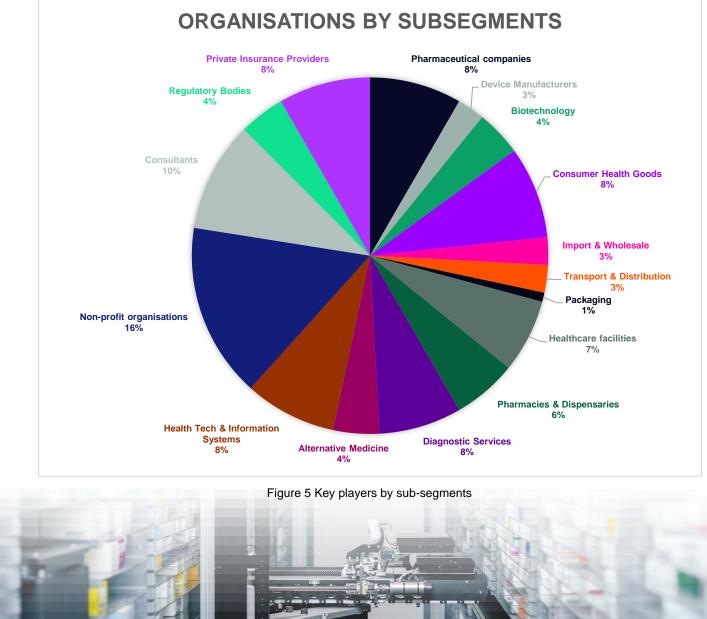
Figure 4 Key players segment split by percentage

As illustrated below the highest percentage of organisations fall within the production segment and the distribution segment has the least percentage of key players.



distribution

#### A visual of the key players subsegment proportion split





### 7. SOUTH AFRICA'S HEALTH CARE VALUE CHAIN

South Africa has a two-tiered health system consisting of public and private healthcare. The private sector serves the country's higher income minority who can afford to pay exorbitant monthly fees, while the public sector is funded by tax revenues and serves a vast majority of the South African population. The private sector, which is perceived to provide better quality health care by most South Africans is challenged by unaffordable prices, maldistribution of providers and facilities and perceptions of over-servicing, perverse incentives and lack of accountability as identified in the draft report of the Health Market Inquiry (HMI)<sup>29</sup>.

During the Presidential Health Summit held in October 2018, concerns were raised about several issues affecting human resources in the country's healthcare sector, namely<sup>30</sup>:

- Vacant posts: Many critical health posts remain vacant and need to be filled. A policy addressing foreign trained medical practitioners to address shortages of skills needs to be implemented.
- **Performance management:** health professionals need to meet statutory requirements for internship and community service in the health sector.
- **Poor planning:** poor planning results in poor service delivery. The funding policy and staffing must meet the needs of the health system.
- **Inadequate remuneration:** Remuneration of Work Outside Public Sector (RWOPS) needs to be reviewed as it impacts on service delivery.
- **Poor coordination at different spheres of government**: the roles and responsibilities of each sphere of government need to be reviewed with clear separation of political vs administrative leadership.
- Lack of leadership, management and governance: an anti-corruption forum in the healthcare system needs to be established along with the enhancing the role clinical committees and hospital boards play. Politicians need not get involved in the execution of policies but must have the oversight.
- Lack of delegation of authority: legislation to be changed in order to give the Minister the ability to exercise authority in implementing policies at a provincial level.
- Harmonisation and stewardship: alignment and harmonisation is required which takes into consideration the importance of human resource for planning, including planning and budgeting to meet health needs. Education and training must be aligned to health system requirements<sup>31</sup>.

The South African healthcare industry is projected to experience continued unprecedented growth despite the broader economic slowdown ushered by COVID-19 with an expected valuation of US\$37 billion by 2022<sup>32</sup> and \$47.1 billion by 2027<sup>33</sup>. The industry's growth will require a commensurate, growing workforce, but with a history of stagnant or declining employment figures, and debilitating brain drain, skilling and employment; interventions have to be aligned with industry demand if the growth of the health sector is to become a story or regrowth and resiliency for the country.

<sup>&</sup>lt;sup>29</sup> https://theconversation.com/how-a-lack-of-competition-in-south-africas-private-health-sector-hurts-consumers-125380

<sup>&</sup>lt;sup>30</sup> Presidential Health Summit Report, 2018

<sup>&</sup>lt;sup>31</sup> Presidential Health Summit Report, 2018

<sup>&</sup>lt;sup>32</sup> https://www.africahealthexhibition.com/en/overview/industry-insights/healthcare-market-insights-south-africa/page-1.html

<sup>&</sup>lt;sup>33</sup> https://www.africahealthexhibition.com/en/overview/industry-insights/healthcare-market-insights-south-africa/page-1.html

In identifying opportunities for growth in the allied health sector and designing recommendations in line with those opportunities, the healthcare ecosystem has been classified into five segments and associated subsegments, as shown in Figure 6 below.

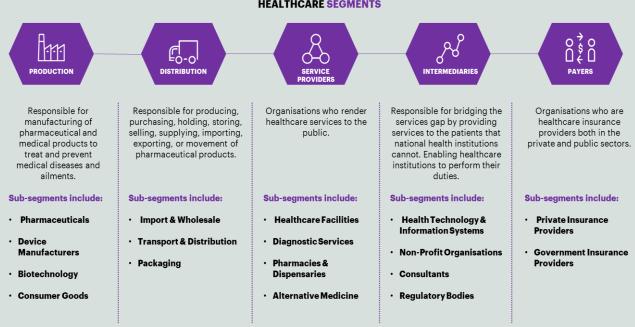


Figure 6 Healthcare value chain

PRODUCTION						
Pharmaceuticals The pharmaceutical industry is responsible for research, development and production of medication.						
Device Manufacturers	Medical device manufacturers are companies that supply a variety of products that are used for the diagnosis, prevention and treatment of diseases, including medical devices and diagnostic tools.					
Biotechnology	Medical biotechnology is the use of living cells and cell materials to research and produce pharmaceutical and diagnostic products that help treat and prevent human diseases.					
Consumer Goods	Consumer health goods companies deal with products in wellness, oral health, nutrition, and skin health. These consumer healthcare products primarily include the over the counter (OTC) drugs that are sold without a prescription from registered medical practitioner.					

#### **HEALTHCARE SEGMENTS**

DISTRIBUTION						
Import & Wholesale	Organisations who are responsible for the purchasing of pharmaceutical products from manufacturers, storage in their warehouses and other holding facilities and distribution of the medical products to a variety of different locations, such as pharmacies, hospitals, clinics, doctors' offices, and labs.					
Transport & Distribution	Organisations in transport and distribution are responsible for ensuring medical supplies travel from the source to the facility that will sell them further to customers/patients – in most cases these are either pharmacies and dispensaries or healthcare facilities i.e. hospitals and clinics.					
Packaging	Organisations responsible for ensuring medical products are packaged safely and appropriately for medical use and consumption.					
SERVICE P	ROVIDERS					
Healthcare Facilities	Healthcare facilities are locations where healthcare services are provided. Health facilities range from small clinics and doctor's offices to urgent care centers and large hospitals with elaborate emergency rooms and trauma centers.					
Diagnostic Services	Diagnostic services are related to the tests and evaluations that aid in the detection, diagnosis and treatment of diseases, injuries or other physical conditions.					
Pharmacies & Dispensaries	Pharmacies and dispensaries are responsible for dispensing medication prescribed by healthcare professionals as well as over the counter medication to patients.					
Alternative Medicine	Alternative medicine practitioners seek to help their clients through traditional and holistic healing practices, such as massage, acupuncture, or reflexology, to name a few.					
INTERMED	IARIES					
Healthcare Technology & Information Systems	Organisations who are classified as Technology and Information Systems provide information technology applications of information processing involving both computer hardware and software that deal with the storage, retrieval, sharing, and use of health care information, data, and knowledge for communication and decision making.					
Non-Profit Organisations	Organisations that do not earn profit for its owners. They are instead organized to further social or community causes that benefit society					
Consultants	Organisations who provide healthcare consulting services are responsible for sharing expertise, giving advice, and guiding healthcare organizations to make business decisions that promote growth and benefit their customers and patients.					
Regulatory Bodies	Organisations who form Regulatory bodies are responsible for overseeing how foods, drugs, and medical products are developed, tested, manufactured, marketed and distributed to certify that they meet regulatory standards for human use.					
PAYERS						
Private Insurance Providers	Organisations that provide financial cover for medical expenses for members who pay contributions for this cover. These organisations cover members' healthcare costs such as hospitalization, treatments and medicine.					
Government Insurance Providers	A system of health insurance that insures a national population against the costs of health care.					

### 8. EMPLOYMENT ENTRY PATHWAYS

Organisations in healthcare have various entry points for potential employees. The entry level pathways into an organisation for Opportunity Youth can be categorised as follows: **direct entry, graduate programmes, apprenticeships, internships and skills development programmes**. These programmes vary across companies covering skills in distribution, production, sales, marketing, administration and support. The requirements for entry also vary across the board depending on the programme and role available, though most require a matric qualification at a minimum. A strong benefit of these programmes is the ability of entrants to grow within the organisations as there is potential to be absorbed as permanent employees.

### **Apprenticeships**

### **Direct Entry**

Involves the employment of an individual directly into the organisation without any specialized skills programme. The requirements vary across the industry, ranging from low skilled roles such as call centre agents, to higher skilled roles such nurses, paramedics etc.

### **Graduate Programmes**

Training programmes where higher education graduates are exposed to the organisation for a period of 12 months and gain soft skills as well as technical skills required for a specific organisation and role. Require candidates with a higher education qualification for consideration. Post high school learning options for people interested in learning a skilled trade. Combination of theory and practical learning typically taking 2-4 years to complete in order to be certified in a skilled trade.

### Internships

Offered student or graduate for short periods of time, typically 3-6 months as a way of gaining work experience. Offered across an organisations core business units and may be an opportunity to gain long term employment.

### **Skills Development**

Targeted at youth who have matriculation certificates and no other higher education or work experience. Examples of CSI skills development programmes include: Beier Group – Pivot Programme, AIDS Foundation SA – Community Work Programme etc.



### 9. UNDERSTANDING THE HEALTHCARE DEMAND

### 9.1. KEY PLAYERS IN HEALTHCARE

The landscape assessment focused on organisations that are in the healthcare industry with a presence in South Africa. There was a specific focus of organisations with a presence in KwaZulu-Natal due to the intention to pilot the GOYHP in eThekwini.

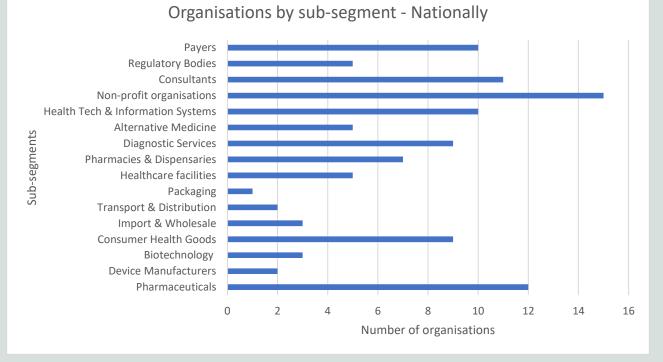
### A summary of key healthcare players nationally

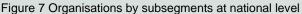
109 organisations in healthcare were identified nationally. The assessment findings reveal that most organisations fall within the non-profit category as this subsegment accounts for 13.76% of the total organisations. This segment is followed by pharmaceutical companies and consultants which account for 11% and 10.79% respectively. Most of the entry level skills advertised were office administrators and office clerks.

Many organisations had a presence in Johannesburg. Other prominent locations included Cape Town, Port Elizabeth, East London and Bloemfontein. Organisations which fall under the production segment have multiple operations serving different roles requiring various skills.

Sales & Marketing: skills required under sales and marketing related to call centre agents, sales agents, customer service agents and store assistants

- **Manufacturing:** skills required here are related to production. Roles such as fitters and turners and quality control assistants.
- Distribution: skills required were predominantly logistics, fleet administrators and stock clerks.





Many entry level opportunities that were identified within the service providers segment are roles within diagnostic services (i.e. laboratories). These include data capturers, laboratory admin clerks and swab procedure aids. It is assumed that the national response to the COVID-19 pandemic, and resulting pressure to test people in higher numbers, contributed significantly to the current prevalence of demand for these roles.

Within the intermediaries' segment, many entry level roles which were advertised were more aligned to digital skills which fall mostly under Health Information Systems with roles such as application developer, database administrator and programmer. For Non-Profit Organisations (NPO) roles in demand included linkage officers, support staff as well as data capturers.

The table below illustrates key players both nationally and within KZN and provides a view of all organisations in the landscape and where these organisations are located. It also shows their service offerings and the entry level opportunities available within their organisations.

In some instances, organisations have a nationwide footprint with various operations having different functions. A key has been provided to explain the various types of operations these organisations have.

н	Head office					
MF	Manufacturing					
0	Office					
D	Distribution					
S	Sales office					
МТ	Marketing					
Р	Pharmacy /Dispensary					

### 9.2. VIEW OF THE NATIONAL KEY PLAYERS

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
Production	Pharmaceuticals	Ascendis Health	Johannesburg (H)	Pharmaceutical manufacturer	Learnerships
		Aspen Holdings	Johannesburg (S), (D); East London – MF; Port Elizabeth – (S), (D), (MT), (MF), Cape Town – (S), (D), (MT), (MF)	Pharmaceutical manufacturer	Entry level in sales, distribution, marketing, support, administrative
		Aurobindo Pharma	Johannesburg (H) Pretoria (O)	Pharmaceutical manufacturer	Education & skills development
		Austell Laboratories	Johannesburg	Pharmaceutical manufacturer	Graduate programme
		Bayer	Johannesburg	Pharmaceutical manufacturer	Professional internships Vocational training programme
		Cipla Medpro South Africa	Cape Town (H), (D), Midrand (O), Port Elizabeth (O), East London (O), Bloemfontein (O)	Pharmaceutical Manufacturer	Graduate opportunities
		Glaxosmithkline South Africa	Johannesburg (H) Cape Town (MF)	Pharmaceutical Manufacturer	Work experience, apprentice programme Internships Placements Graduate opportunities
		Boehringer Ingelheim	Johannesburg	Pharmaceutical Manufacturer	Student and graduate intake in Research & Development, Manufacturing, Commercial, Enabling Functions
		Merck	Johannesburg	Pharmaceutical Manufacturer	Graduate opportunities (degrees in natural sciences, business administration, engineering or IT), Direct entry opportunities, Internship opportunities

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		Novartis South Africa	Johannesburg	Pharmaceutical Manufacturer	Internships for university students. Areas of employment include research and development, marketing and sales, finance and administration
		Roche	Johannesburg	Pharmaceutical Manufacturer	Internship opportunities for university students in customer experience, business support, IT
		Sanofi Industries South Africa	Johannesburg (H) Pretoria (MF)	Pharmaceutical Manufacturer	Intake into the following areas: research & development, manufacturing, marketing, medical or market access
	Device Manufacturer	AHG Health	Cape Town, Gauteng, Eastern Cape, Free State	Manufacturers	Intermediate clerk
		Fresenius Kabi Manufacturing SA	Johannesburg (H) Port Elizabeth (P), Cape Town (P), Bloemfontein (P)	Manufacturer, Research and Development, Marketer	Entry level opportunities in sales, marketing, production
	Biotechnology	African Clinical Research Organisation	Johannesburg	Research and Development, Innovation	Training courses in data, clinical skills, basic monitoring
		Biovac Institute	Cape Town	Research and Development,	Job shadowing available for grades 11 and 12
				Manufacturing, Pharmaceuticals, Vaccines	Entry level in office services, supply chain, quality control, and commercial
		AstraZeneca Pharmaceuticals	Johannesburg	Pharmaceuticals, Research and Development, Oncology, Respiratory	Apprenticeship programmes
	Consumer Health Goods	Adcock Ingram	Johannesburg	Pharmaceuticals, Nutrition, Vitamins	Youth Employment Service
		P and G South African Trading (Pty) Ltd	Johannesburg	Hygiene, Feminine Care, Grooming	Internship programme
		Tiger Brands	Johannesburg	Nutrition	Workplace experience in food technology, engineering, marketing, production and operations
		Nestle (South	Johannesburg (H)	Nutrition	Fitter & turner Apprenticeship programme
		Africa)	East London (MF)		Youth Employment initiative

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		Wellness Warehouse	Cape Town Johannesburg	Wellness, Nutrition	Store assistants, store managers
		NeoLife International	Johannesburg Cape Town	Nutrition	Distributor
		Reckitt Benckiser	Johannesburg Cape Town	Hygiene	Graduate opportunities Internship programmes
		Colgate- Palmolive	Johannesburg	Hygiene	Student opportunities
		Danone	Johannesburg	Nutrition	Graduate opportunities
Distribution	Distribution	Transpharm	Pretoria Cape Town	Wholesale & Distribution	Graduate programme
		UPD	Johannesburg (H), Cape Town (D), Port Elizabeth (D), Durban (D), Bloemfontein (D)	Wholesale & Distribution	Entry level opportunities Trainee opportunities Learnerships
		DSV Healthcare	Johannesburg (H) , Port Elizabeth (O), Cape Town (O)	Transport & Distribution	Logistics
		Amcor	Johannesburg (S), Cape Town (O)' Port Elizabeth (O)	Packaging	Graduate programme
		Imperial	National	Distribution	Entry level procurement, logistics, fleet administrators
		EDNA Medical Distributors	Pretoria	Import & Distribution	Entry level positions in administrative, sales, marketing and logistics
Service Providers	Healthcare facilities	Mediclinic	National	Hospital	Care Worker
Troviders		Life healthcare	National	Hospital	Clerk

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		Melomed Mitchell's Plain	Kenilworth (H) Bellville, Claremont, Gatesville, Mitchell's Plain, Richards Bay, Tokai	Hospital	Driver, bed booking clerk
		Melomed Private Clinic (Pty) Ltd.	Claremont (H)	Psychiatric	Internship and job opportunities
		Royal Hospital and Heart Centre	Kimberley, Johannesburg (H), Ladysmith, Randfontein, Tembisa	Hospital	Nurses
		Western Cape Department of Health	Western Cape	Hospitals and clinics	Porter, tradesman aid, general worker, pharmacist assistant
	Diagnostic Services	National Health Laboratory Service	Johannesburg (H) Pretoria (O) East London (O) Cape Town (O)	Public, Laboratory, Public Health, Medical Training, Research, Supply Chain	Laboratory clerk, laboratory technician, academic affairs research assistant, typist
		Lancet Laboratories	Johannesburg (H) Cape Town (O) Rustenburg (O) Bloemfontein (O) Kimberley (O)	Laboratory, Diagnostic Testing	Courier, data capturer, laboratory administrative clerk, billing medical aid collector, receptionist, swab procedure aid, systems billing admin clerk
		PathCare	Cape Town (H)	Data collection, Laboratory, Diagnostic Testing	Training and development for phlebotomists, lab technicians, and lab assistants
		Ampath Laboratories	Pretoria (H) National	Data collection, Laboratory	Learnerships for phlebotomy technician, laboratory technician
		Medical Research Council	Cape Town, Pretoria, Johannesburg, Durban, Delft	Research and Development	Development programmes

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		Abbott Laboratories	Johannesburg (H)	Private, Nutrition, Diagnostic Testing, Pharmaceuticals	Junior financial analyst, junior quality systems specialist
		The Scientific Group	Johannesburg	Private, Laboratory, Diagnostic Testing	Job opportunities and partnership initiatives
		Becton Dickinson (Pty) Ltd	Johannesburg	Diagnostic Services, Research and Development	Customer service, administrative & transportation
		Roche Products (Pty) Ltd	Johannesburg	Private, Diagnostic Testing, Research and Development	Internships Business analyst
	Pharmacies & Dispensaries	Dis-chem Pharmacies	National	Retail	Dispatch/Receiving Clerk, Health Merchandiser, Operation Call Centre Agents, Supplement and Vitamin Consultant, Motorbike Driver, Online Customer Care Consultant
		Clicks Pharmacy	National	Retail	Pharmacist assistant, wellness assistant, learnership, analyst developer, service centre analyst
		Medi-Rite	National	Retail	Pharmacist sales assistant
		Pick n Pay Pharmacy	National	Retail	Pharmacy assistants, vitamin advisors
		Medicare Health	Johannesburg	Private, Retail	Pharmacist assistant, Front Shop Assistant, Cashier
		Link Pharmacy	National	Private, Retail	SPEL programme
		Medipost Pharmacy	Pretoria	Private, Retail	Driver, Canteen Cashier, Maintenance Assistant, Network Consultant
	Alternative medicine	South African Society of Integrated Medicine	National	Association, Integrative Medicine, Alternative Medicine	Training
		Herbalife International South Africa Ltd	Johannesburg (H), Cape Town, Ladybrand,	Natural Medicine, Nutrition	Independent distributor

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		Wellness Warehouse (Pty) Ltd	Cape Town, Johannesburg	Retail, Health Products	Store assistant, store manager
		Forever Living Products South Africa (Pty) Ltd	Cape Town, Johannesburg	Wellness, beauty	Independent distributor
		Herba Zone (Pty) Ltd	National	Natural Medicine	Independent distributor
Intermediaries	Health Tech & Information systems	Dimagi	Cape Town	Mobile application, Technology, Social Impact, Data Collection, Healthcare Service Delivery, Software	Technical writer, field manager
		Jembi	Cape Town	Nonprofit, Technology, Innovation, Information Systems, Data, Software	Data collectors, data capturers
		Qode	Pretoria	South African Company, Information Systems, Data, Microsoft, Software, Technology	Medical technology training
		Health Information Systems Programme (HISP)	Pretoria	Nonprofit, South African Company, Information Systems, Software, Technology	Trainings
		AnovaHub	Johannesburg	Nonprofit, Thought Leadership, HIV	Technical assistant
		Mezzanine Ware	Johannesburg, Cape Town	South African Company, Technology, Mobile Application, Software, Social Innovation	Programming and entry jobs
		Meditech	Johannesburg	Software, Mobile application	Sales representative, database administrator
		Orderwise	Johannesburg, Cape Town	Procurement Software	Programmer, call center agent

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		Spensnet	Pretoria	software solutions	Project- Upskill youth
		Simm Labs	Cape Town	Advanced technology	Programmer
	Non-Profit	TB/HIV Care	Cape Town	HIV, TB	Linkage officer Data capturer
		AIDS Foundation SA	Cape Town, Mpumalanga	HIV, TB	Community Work Programme - employment safety net providing access to minimum level of regular work on an ongoing basis
		The Rural Health Advocacy Project	Johannesburg	Rural healthcare accessibility	Graduate Internship in rural health advocacy
		HIV SA	Johannesburg	HIV TB	Training, Initiatives and Projects
		South African National Blood Service	National	Diagnostics	Internships and trainee programmes
		The Sunflower Fund	Johannesburg, Cape Town	NCD	Marketing manager, volunteer programme, support staff
		FHI360	National	Human development	District co-ordinator
		JHPIEGO	Western Cape	HIV TB	Community mobilizers
		Anova Health	Johannesburg, Nelspruit, Polokwane, Cape Town	HIV TB	Buyer Technical Assistant
		The Aurum Institute	National	HIV TB	Mobilizers, data capturers, educators on COVID-19
		Global Health Innovation	National	HIV TB	Data capturers
		Centre for HIV- AIDS Prevention Studies (CHAPS)	Johannesburg	HIV TB	Data capturers

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		Path	Johannesburg	HIV TB, Maternal health	Data capturers, lay counselors
		Society for Family Health (SFH)	Johannesburg	HIV TB	Buyer, Monitoring and Evaluation Assistant, Administration Officer
		Health Systems Trust	Johannesburg, Cape Town	HIV TB	Data capturers, filing clerks
	Regulatory Bodies	The South African Nursing Council	Pretoria	Regulation	Office administrator
		National Institute for Communicable Diseases	Johannesburg	Public Health, Research and Development, Government	Office clerk
		The Council for Medical Schemes	Pretoria	Regulation	Researcher
		The South African Pharmacy Council	Pretoria	Regulation	Office administrator
		The Health Professions Council of South Africa	Pretoria	Regulation	Office administrator
	Consultants	Alexander Forbes Healthcare Services	Johannesburg, Bloemfontein, East London, Cape Town, George, Nelspruit, Pretoria, Stellenbosch,	Consulting	Graduate programme, internships, learnerships
		Accenture	Johannesburg (H), Cape Town, Pretoria	Consulting	Graduate programme, internship
		Broadreach Healthcare	Cape Town (H), Johannesburg	Consulting	Data capturer, business development Intern

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		CMAC Healthcare Consulting	Pretoria, Cape Town, Kroonstad, East London, Middelburg, Polokwane	Consulting	Consultants
		Dalberg	Johannesburg	Consulting	Undergraduate internship
		Deloitte	Johannesburg (H), East London, Cape Town, Port Elizabeth, Pretoria, Stellenbosch	Consulting, Auditing	Graduate programme Consulting analyst
		Glopin Healthcar e consultants	Cape Town, Port Elizabeth	Consulting	Administrator, service consultant
		KPMG	Johannesburg, Port Elizabeth, Cape Town	Consulting, Auditing	Graduate programme
		NMG Healthcare Consulting	Johannesburg, Cape Town, Port Elizabeth	Consulting	Administrator
		Aon	Cape Town, Johannesburg, Pretoria, Port Elizabeth, East London, George, Bloemfontein, Nelspruit, Mafikeng	Consulting	Graduate programme, Learnership, internship and entrant job matric
		PwC	Johannesburg (H), Cape Town, Port Elizabeth, East London, Bloemfontein, Witbank, Kimberley, Nelspruit, Mahikeng	Consulting, auditing	Graduate programme
Payers	Private Insurance Providers	Afro centric group	Johannesburg/Vereeniging, Cape Town	Restricted	Internship
		Medscheme	Johannesburg, Bloemfontein, Cape Town, Port Elizabeth, Kimberely	Restricted	Learnership, Internship
		Discovery Health Medical Scheme	Pretoria	Open	Graduate programme, service consultant

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		Momentum Medical Scheme	Pretoria	Open	Administrator, human capital intern, business analyst, graphic designer
		Rand Water Medical Scheme	Johannesburg	Restricted	Committee secretary
		Samwumed	Cape Town	Restricted	Learnership
		Tiger Brands Medical Scheme	Johannesburg	Restricted	Learnerships, entry level opportunities in customer management, human resources, supply chain
		Bonitas Medical Scheme	Johannesburg	Open	Customer service agents
		FedHealth	Johannesburg	Open	Customer service agents
		Liberty Health	Johannesburg	Open	Customer service agents

#### A summary of key healthcare players in KwaZulu-Natal

54 organisations in healthcare were identified with a presence in KwaZulu-Natal. The assessment findings reveal that most organisations in KZN fall within the non-profit sub-segment, which accounts for 20.37% of the total number. This is followed by consultant organisations and healthcare facilities which account for 12.96% and 11.11% respectively. Majority of the organisation are located in Durban which forms part of the eThekwini Municipality.

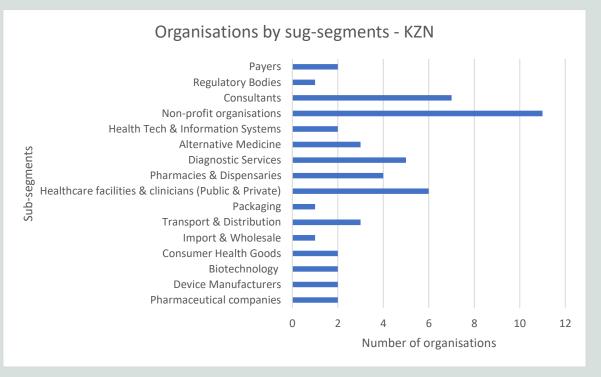


Figure 8 Organisations by subsegment at a KZN level

A majority of the entry level opportunities identified fell within the intermediary and service provider segments of the value chain. This may be attributed to the high focus on healthcare programmes in the province, particularly HIV/TB programmes which have a lot of potential to upskill the youth. Healthcare services had opportunities ranging from care workers, hospital caterers, clerks and administrators. There were also vacancies for paramedics and enrolled nurses. Within the intermediaries segment the roles ranged from customer service agents to technical support. Non-Profit Organisations had entry level opportunities in data capturing, community health work and administration.

The table below summarizes the findings of the organisations identified in KZN with the potential to upskill opportunity youth View of key players in KZN

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
Production	Pharmaceuticals	Aspen Holdings	Durban (H)	Pharmaceutical Manufacturer	Entry level in sales, distribution, marketing, support, administrative
		Cipla Medpro South Africa	Durban (O), (MF)	Pharmaceutical Manufacturer	Entry level opportunities Graduate opportunities
	Device Manufacturers	Beier Drawtex Healthcare	Durban	Device Manufacturer	Learnership programme
		Fresenius Kabi Manufacturing SA	Durban (D)	Manufacturer, Research and Development, Marketer	Entry level opportunities in sales, marketing, production
	Biotechnology	National Bioproducts Institute	Durban	Manufacturer	Internship programme Trainees
		BSN Medical	Durban	Research and Development, Wound Care, Compression Therapy, Orthopedics	Apprenticeships in manufacturing, engineering
	Consumer Health Goods	NeoLife International	Durban	Nutrition	Merchandise distributor
		Wellness Warehouse (Pty) Ltd	Dolphin Coast	Nutrition, Vitamins	Store assistant
Distribution	Distribution	UPD	Durban (D)	Wholesale & Distribution	Entry level opportunities Trainee opportunities Learnerships
		DSV Healthcare	Durban (O)	Transport & Distribution	Logistics

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		Amcor	Durban (O)	Packaging	Graduate programme
		SSEM Mthembu Medical (Pty) Ltd	National	Transport & Distribution	Skills development programme, university degree and diploma support, as well as international training courses
		Imperial	National	Distribution	Entry level procurement, logistics, fleet administrators
Service Providers	Healthcare facilities	Mediclinic	National	Hospital	Internship, Care Worker
	Tacilities	Life healthcare	National	Hospital	Clerk
		Busamed Hillcrest Private Hospital	Durban (H)	Hospital	Nurse
		Royal Hospital and Heart Centre	Durban	Hospital	Nurses
		Royal Rehabilitation Hospital	Pietermaritzburg (H)	Sub-Acute	Catering
		KwaZulu-Natal Dept of Health	KwaZulu-Natal	Hospital, Clinic and CHC	Paramedics
		National Renal Care	Durban	Private hospital	Care worker
	Diagnostic Services	National Health Laboratory Service	Durban (O)	Public, Laboratory, Public Health, Medical Training, Research, Supply Chain	Laboratory clerk, laboratory technician, academic affairs research assistant, typist
		Lancet Laboratories	Durban (O)	Laboratory, Diagnostic Testing	Courier, data capturer, laboratory administrative clerk, billing medical aid collector, receptionist, swab procedure aid, systems billing admin clerk
		PathCare	Umhlanga, Richards Bay, KwaDukuza, Ballito	Data collection, Laboratory, Diagnostic Testing	Internship, Learnership and development
		Ampath Laboratories	KwaZulu-Natal	Data collection, Laboratory	Learnership
		Medical Research Council	Durban	Research and Development	Development programmes Writer & Editor

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
	Pharmacies & Dispensaries	Dis-chem Pharmacies	National	Retail	Dispatch/Receiving Clerk, Health Merchandiser, Operation Call Centre Agents, Supplement and Vitamin Consultant, Motorbike Driver, Online Customer Care Consultant
		Clicks Pharmacy	National	Retail	Pharmacist assistant, wellness assistant, learnership, analyst developer, service centre analyst
		Medi-Rite	National	Retail	Pharmacist sales assistant
		Pick n Pay Pharmacy	National	Retail	Pharmacy assistants, vitamin advisors
	Alternative medicine	South African Society of Integrative Medicine	KZN	Association, Integrative Medicine, Alternative Medicine	Training
		Herbalife International South Africa Ltd	Durban	Natural Medicine, Nutrition	Independent distributor
		Forever Living Products South Africa (Pty) Ltd	Durban	Wellness, beauty	Independent distributor
Intermediaries	Health and Information Systems	Orderwise	Durban	Procurement Software	Programmers, call centre agents
		Simm Labs	Durban	Advanced technology	Developer, Programmer
	Non-Profit	The Highway Hospice	Durban	HIV TB, NCD	Telesales agents, social workers, administrators
		AIDS Foundation SA	KwaZulu Natal	HIV, TB	Community Health Workers
		Centre For The Aids Programme Of	Durban, Umlazi	HIV TB	Data capturer, counselor, quality control officer

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		Research In South Africa (CAPRISA)			
		South African National Blood Service	KwaZulu-Natal	Diagnostics	Interns and Trainees
		The Sunflower Fund	Durban	NCD	Marketing manager, volunteer programme, support staff
		FHI360	National	Human development	Data capturer, district co-ordinator
		Health Systems Trust	Durban	HIV TB	Data capturers, filing clerks
		The Aurum Institute	National	HIV TB	Mobilizers, data capturers, educators on COVID-19
		Society for Family Health (SFH)	Pietermaritzburg	HIV TB	Monitoring and Evaluation Assistant, Administration Officer
		Global Health Innovation	Durban	HIV TB	Data capturer
		JHPIEGO	KwaZulu-Natal	HIV TB	Community mobilizers, recruiters
	Consultant	Alexander Forbes Healthcare Services	Durban, Pietermaritzburg	Consulting	Internships and Learnerships
		Aon	Durban	Consulting	Graduate programme Learnership Internship
		CMAC Healthcare Consulting	Durban	Consulting	Consultants
		Deloitte	Durban, Pietermaritzburg, Richards Bay	Consulting, auditing	Graduate programme Consulting Analyst
		KPMG	Durban	Consulting, Auditing	Graduate programme

Segment	Subsegment	Company name	Location	Service offering	Entry opportunities
		NMG Healthcare Consulting	Durban	Consulting	Administrator
		PwC	Durban, Pietermaritzburg	Consulting, auditing	Graduate programme Skills development programme
	Regulatory Bodies	Medical Research Council	Durban	Public	Research capacity development programme aims to upskill young researchers
Payers	Private Insurance Payers	Medscheme	Durban	Restricted	Learnership, Internship
		Afro centric group	Durban	Restricted	Internship

## 10. OPPORTUNITIES AVAILABLE ACROSS THE HEALTH SECTOR

## **10.1. ENTRY LEVEL OPPORTUNITIES**

The table below provides a view of the various entry level jobs and associated growth opportunities that are available across the ecosystem for Opportunity Youth.

Segment	Sub-segment	Entry Level Jobs	Growth Opportunities
Production	Pharmaceutical companies	Quality Assurance Associate, Junior Laboratory Assistant, Production Technician, Research Assistant	Production Manager, Operations Manager, Head of department
	Device Manufacturers	Sales Representative, Product Testing Associate, Medical Device Assembler, Manufacturing Assistant	Production Manager, Operations Manager
	Biotechnology	Junior Research Assistant, Junior Laboratory Assistant, Manufacturing Assistant	Research Scientist, Lead Scientist, Chief Scientist, Technical Services Representative
	Consumer Health Goods	Research Assistant, Quality Assurance Associate, Junior Laboratory Technician, Production Technician, Research Assistant, Marketing Assistant	Consumer Account Manager, Consumer Account Executive, Marketing Manager
Distribution	Import & Wholesale	Shipping & Packaging Operator, Warehouse Associate, Assembly Clerk, Order fulfillment Associate, Material and Product Inspecting Clerks	Procurement Officer, Supply Chain Manager, Logistics Specialist, Warehouse Manager
	Transport & Distribution	Delivery (Truck) Driver, Supply Chain Logistics Technician, Material and product inspecting clerks, Stock Clerks, Order Fillers, Forklift Driver	Procurement Officer, Supply Chain Manager, Logistics Specialist
	Packaging	Packaging assistant, Packaging Operator, Product Assembler, Handler	Packing Specialist, Packaging Technologist
Service Providers	Healthcare facilities & clinicians	General Duty Assistant, Clinical Data Coordinator, Medical Record Transcriber, Home Nursing Assistant, Caretaker, Medical Secretary, Medical Receptionist, Ambulance Assistant	Registered Nurse, Senior Caretaker, Paramedic, Senior Administrator
	Pharmacies & Dispensaries	Pharmacy Clerk, Supply Clerk, Administrator, Pharmacist assistant	Pharmacist, Head pharmacist
	Diagnostic Services	Customer Service Associate, Field Service Engineer, Specimen Processing Assistant, Data Entry Clerk	Phlebotomists, Radiologists and radiology technicians, Histology technicians, Physician assistants, Diagnostic medical sonographers
	Alternative Medicine	Distributer, Sales Agent, Store Assistant, Massage Therapist, Acupuncturist, Herbalist	Store Manager, Entrepreneur, Business Owner

Segment	Sub-segment	Entry Level Jobs	Growth Opportunities
Intermediaries	Health Tech & Information Systems	Junior Systems Administrator, Customer Service Associate, Data Entry Clerk, Programmer, Database Administrator, Coder, Developer	Programmer, Software Engineer, Data Scientist
	Non-profit organisations	Filing/Admin clerk, Data Capturer, Patient Facility Navigators, Community/Telephonic Tracer, HIV Self-Screener/ COVID-19 Self- Screener, Lay counsellor, Research Assistant, Peer Navigators, DOT (Directly Observed Treatment) supporters	Community Health Workers lead, NPO Founder, Business Owner, Community Health Educator
	Regulatory Bodies	Quality assurance consultant, Regulatory analyst, Regulatory associate, Regulatory consultant	Regulatory Specialist, Regulatory Compliance Officer
	Consultants	Data Analyst, Research Analyst	Consulting Manager, Consulting Senior Manager, Managing Director
Payers	Private and public insurance providers	Administrator, Billings Officer, Customer Service Centre Agents, Data Capturers	Sales Manager, Customer Relationship Manager

## **11. MARKET DEMAND FOR HEALTHCARE SKILLS**

The market demand for entry level healthcare skills have been themed into six categories, namely: healthcare service skills, community health worker skills, digital health skills, manufacturing skills, supply chain skills and customer service and sales skills. These skills require at a minimum, a matric certificate while some more technical skills require further education and training. The following table provides more detail on the findings per segment, related skills category, industry overview and entry level skill sets in demand.

Segments	Skills Category Theme	Industry Overview	Entry Level Skills Sets in Demand
Production	Manufacturing	<ul> <li>Less than 5% of medical products are reported to be produced locally. Most are imported.</li> <li>There is lack of manufacturing and production skills in the country, and a need to grow these skills especially within pharmaceuticals</li> <li>Fewer investments flowing into the manufacturing segment has resulted in the shortage of skilled and semi-skilled labour within certain areas of medical device manufacturing.</li> </ul>	<ul> <li>Production technicians</li> <li>Product assemblers &amp; handlers</li> <li>Manufacturing &amp; process technicians</li> <li>Quality control assistants</li> </ul>
Distribution	Supply Chain	<ul> <li>Migrant workers found to bridge gap for lower skilled work such as truck driving</li> <li>General legacy supply chain management issues highlighted during the COVID-19 pandemic</li> <li>Various challenges around the shortage of medical supplies due to numerous reasons such as not paying suppliers on time, manufacturing delays and product quality problems amongst others</li> </ul>	<ul> <li>Stock clerks</li> <li>Procurement officers</li> <li>Forklift handlers</li> <li>Logistics</li> </ul>
Service Providers	Healthcare Services	<ul> <li>High demand for professionally skilled individuals in the healthcare services</li> <li>The pandemic has highlighted the extent of the shortage of skilled healthcare resources.</li> <li>Healthcare supply is not growing at the same rate as the demand affecting the quality of healthcare.</li> </ul>	<ul> <li>Nursing support workers</li> <li>Caregivers</li> <li>Ambulance assistant/officer</li> <li>Pharmacy sales assistants</li> <li>Pharmaceutical technicians</li> <li>Medical secretary</li> <li>Administrators</li> </ul>
Intermediaries	Digital Health Intermediaries	<ul> <li>Rise in demand for digitally skilled people in healthcare as a shortage exists in public and private sectors</li> <li>The National Digital Strategy highlights that digital health is expected to be a significant driver of health system transformation.</li> <li>NGOs require skills to improve governance, organisational management and community reach.</li> <li>Demand for more Community Health Workers for the extensive HIV/AIDs and TB programme as well as the COVID-19 response</li> </ul>	<ul> <li>Administrators</li> <li>Data capturers</li> <li>Data analysts</li> <li>Coders</li> <li>Developers</li> <li>Community health workers</li> <li>DOT supporters</li> <li>Lay counsellors</li> <li>HIV Self-Screener/ COVID-19 Self-Screener</li> <li>Administrators</li> </ul>
Payers	Sales & Customer Services	<ul> <li>Medical aid and healthcare insurance industries have demand for customer service and sales agents</li> <li>Potential to absorb many individuals with little experience and lower level qualifications. Typically, on the job training is available and workers can be quickly up skilled.</li> <li>Skill sets gained from these roles can easily be transferred across the healthcare ecosystem as most segments have touchpoints that require sales and customer services</li> </ul>	<ul><li>Sales agents</li><li>Customer services agents</li><li>Administration</li></ul>

## 11.1. SKILLS AND ROLES IN DEMAND ACROSS THE VALUE CHAIN

#### Healthcare Services Skills

Role	Training	Competencies
Nursing Support Worker	Biology and Physiology Knowledge	Empathy, Teamwork, Communication, Work Ethic, Stress Management, Time Management, Receptive Attitude, Ability to Work with People, Physical Stamina
Medical secretary	Typing, Data Capturing, Office Administration	Communication Skills, Interpersonal Skills, Scheduling, knowledge of Medical Terminology
Administrative Assistant	Administration, Filing, Typing, Data Capturing, Microsoft Office	Scheduling, Planning
Caregivers	Biology and physiology knowledge	Empathy, Teamwork, Communication, Work ethic, Stress management, Time management, Receptive attitude, Ability to work with people, Physical Stamina
Pharmaceutical Technician	Computer skills, Mathematical ability	Customer service, Communication skills, Physical stamina, Problem solving
Ambulance Assistant/Officer	Driving ability, Technical Knowledge	Action Orientated, Decision Making skills, Self-Management, Ability to Adapt to Change, Customer Service, Communication, Teamwork, Work Ethic, Interpersonal Skills

#### **Intermediary Services**

Role	Training	Competencies
Community Health Worker		Social Perceptiveness, Service Orientation, Stakeholder Management, Problem Solving
Filing/Admin clerk	Data Collection, Sorting Files, Basic Computer Skills	Teamwork, Stakeholder Management
Data Capturer	Data Collection, Data Analysis, Microsoft Excel, Tier.net, Computer Skills	Time Management
Patient Facility Navigators		Communication Skills, Stakeholder Management, Multi-tasking, Customer Care.
Community/Telephonic Tracer	Telephonic Ability	Communication Skills, Customer Service and Care, People Management
HIV Self-Screener/ COVID-19 Self- Screener		Communication Skills, Customer Service, Cognitive and Affective Empathy
Lay counsellor	Counselling skills	Communication Skills. Customer Service, Cognitive and Affective Empathy

Research Assistant	Writing skills, Research Skills, Possibility of further studies	Communication Skills
Peer Navigators	Community work	Communication skills, Stakeholder Management
DOT (Directly Observed Treatment) supporters	Community work	Communication skills, Stakeholder Management

### **Digital Health Skills**

Role	Training	Competencies
Coder	Knowledge of a Programming Language, Computer Literacy	Problem Solving, Analytical Skills, Abstract Thinking, Strong Memory, Logic Skills, Patience, Time Management, Mathematical ability, Attention to Detail, Communication skills
Programmer	Programming Language, Computer Literacy	Problem Solving, Analytical Skills, Abstract Thinking, Strong Memory, Logic Skills, Patience, Time Management, Mathematical ability, Attention to Detail, Communication skills
Developer	Knowledge of a Programming Language, Computer Literacy	Problem Solving, Analytical Skills, Abstract Thinking, Strong Memory, Logic Skills, Patience, Time Management, Mathematical ability, Attention to Detail, Communication skills
Data Analyst	Research skills	Analytical, Attention to detail, Communication skills, critical thinking, interpersonal skills, teamwork, business and mathematical skills

### Manufacturing Skills

Role	Training	Competencies
Production Technicians	Fine Assembly Ability, Safety Protocols,	Good Motor Skills, Reading and Comprehension Skills, Written and Verbal Communication Skills, Attention to detail, Critical Thinking
Product Assemblers & Handlers	Knowledge of product assembly and handling	Communication skills, Manual Dexterity, Attention to detail, Basic mathematical skills
Quality control assistants	Knowledge of quality standards	Attention to detail, Time management, Problem-solving, Multitasking, Written and verbal communication, Ability to work as part of a team,

### Supply Chain Skills

Role	Training	Competencies
Logistics	Driving Ability	Time Management, Planning and Organisational Skills, Communication Skills, Customer Service Skills
Procurement Assistant	Procurement Policies, Processes, Procedures, Microsoft Office proficient	Attention to Detail, Time Management, Ability to Multi-Task, Organisational Skills
Forklift handlers	Driving Ability	Physical stamina, Time Management, Organisational Skills
Stock Clerks	Organizational and Inventorying Merchandise, Clerical skills, Knowledge of Receiving and Stocking Goods, Ability to Prepare and Maintain Records and Reports, Ability to Distribute Stock According to the Requisition Forms, Storage Area Maintenance, Knowledge of Microsoft Office Programmes, Computer Literacy	Attention to detail, Time-Management Skills, Communication and Problem- Solving Skills

#### **Customer Services and Sales Skills**

Role	Training	Competencies
Sales Agents	Product knowledge, Phone Support	Communication, Active Listening, Social Selling, Customer Relations, Problem Solving, Objection Handling, Work Ethic
Customer Service Agents	Customer Service Metrics, Call Center Operations, Customer Relations, Data Entry, Phone Support	Problem Solving, Communication Skills
Customer Relationship Management Managers	Customer Relationship Management	Communication Skills, Problem Solving

## SKILLS OVERLAP ACROSS THE VALUE CHAIN

The skills categories which have been identified in healthcare i.e. healthcare services, intermediary, digital health, customer services and supply chain all have skills which can be applied across the healthcare segments. Understanding the extent of this overlap is critical to designing holistic efficiencies in health pathways. The table below illustrates which skills can be applied across the value chain.

	Production	Distribution	Service Providers	Intermediaries	Payers
Healthcare services skills	x	x	x	x	x
Intermediary skills			x	x	
Digital health skills	x	x	x	x	x
Manufacturing skills	x				
Supply chain skills	x	x	x		
Customer service & sales skills	x	x		x	x



## **12. UNDERSTANDING THE HEALTHCARE SUPPLY**

## **12.1. WHY ARE YOUTH NOT IN HEALTHCARE CAREERS?**

#### Limited exposure to career guidance and awareness of healthcare opportunities

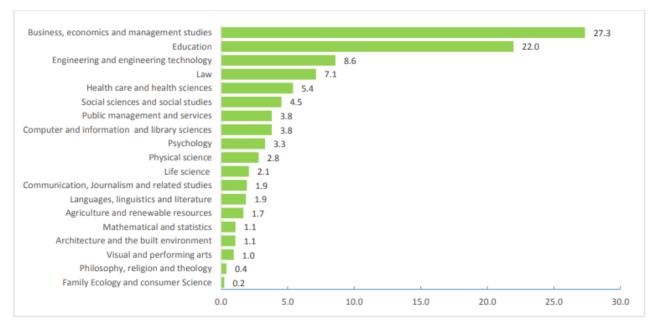
Primary research through interviews conducted with youths in eThekwini revealed that youths tend to graduate from high schools lacking a clear understanding of their own career interests, a grasp of what options are available to them post-school, or a view of the largest sources of local demand for jobs. This is likely prevalent across the country.

High schools have competing priorities for their constrained financial resources. As such, few high schools have career guidance programmes or services for youths once they leave school. In cases where career guidance services are offered, our interviews revealed that youths perceive their assigned counsellors as not being sufficiently trained and experienced.

Over the course of a four-year school career, typically less than five school days are dedicated to educating pupils about careers and the world of work. That is just over one day per year dedicated to decisions that are going to affect the next 40 years of their lives. Youths might choose not to pursue science, technology, engineering and math (STEM) subjects due to their difficulty, blind to the impact of that decision. One of our skilling interviewees noted that students who do not pursue any STEM subjects in school effectively lose over 100 future career options.

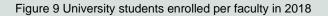
#### Higher education uptake in healthcare

A 2018 report by the Department of Higher Education indicates the list of higher education studies most millennials in the 23 – 28 age group are enrolled for<sup>34</sup>. Only about 5% of the group are enrolled in the health care and health sciences faculty<sup>35</sup>. This is a significantly low number in comparison to the other faculties and result in the lower numbers of health care and health sciences graduates produced.



#### Millennials aged 23-38 attending university by fields of study, 2018

Source: Department of Higher Education 2018



<sup>34</sup> http://www.statssa.gov.za/publications/92-01-06/92-01-062018.pdf

<sup>35</sup> http://www.scielo.org.za/pdf/samj/v106n1/26.pdf

The low uptake of healthcare studies could be due to various reasons. One reason could be the entry requirements. Across most higher education institution, health sciences departments have the highest points required as part of their enrollment process. Matriculation results are a primary determinant of whether applicants get accepted into higher education programmes and in particular within the healthcare studies. STEM subjects are an entry requirement as well as Grade 11 and matriculation final results.

Another reason for low uptake could be the learning duration required to complete a qualification in health sciences. Healthcare studies tend to take relatively longer to complete in comparison to other formal education degrees. A person who would like to enter the workforce sooner rather than later to support their family for example, may consider that a determining factor when choosing a career.

The lack of career guidance programmes and services in high schools is another reason for the low number of students enrolling for healthcare studies due to failure to expose them at an early stage, to the breadth of prospects across allied health vs traditional health services. Without the proper career guidance, these students are not informed about study options such as TVET or alternative qualifications and training intuitions that will give them skills to enter the healthcare sector with upward mobility but not as doctors or nurses per se. These qualifications and institutions give students more options to consider that still land them within the healthcare sector without having to meet high entry requirements and will have a shorter learning duration.

#### Legacy of disadvantaged backgrounds

A third to a half of youths growing up in eThekwini are responsible for helping their families meet daily survival needs and receive little guidance or develop little appreciation for the value of education<sup>36</sup>. In many cases across South Africa, a consequence of HIV/AIDS prevalence is that many households do not have parents to provide family stability, to act as role models or to guide youths on the importance of staying in education.

#### Youth traps

The Market Intelligence Report conducted in eThekwini suggests that youth have certain difficulties they encounter that prevent them from progressing in the process of finding employment, called youth traps. Traps can be defined as obstacles and challenges. They can be thought of as being the less-preferred alternatives that many youths take on in order to sustain themselves. This may also be applicable in the healthcare industry.

There are three main types of traps that youths encounter while progressing on the formal employment career track<sup>37</sup>. These three traps are:

- Youths with underutilized skills: entering employment that does not match their education and skill level
- Youths chasing training stipends: pursuing consecutive training courses for stipends or financial support
- Youths in long-term unemployment: unable to find an employment for over a year

#### Other possible reasons include:

- Many have most recently acquired employment so when there is an economic down-turn they are amongst the first to be laid off
- Lack of job capabilities and networks relevant to enter the labor market
- They lack mobility and resources to look for a job. They may reside at home or close to home in areas where jobs are not readily available
- Approximately 33% of women between 25-39 have contracted HIV, which can affect the number of youths entering the job market<sup>38</sup>
- There is a bias in the formal employment sector towards hiring older employees because they have more experience and seem more reliable.

e.aspx

<sup>36</sup> http://www.durban.go <sup>37</sup> Accenture Market Inte

<sup>8</sup> Youth Labour Ma

# **13. BARRIERS IN THE HEALTHCARE SECTOR**

### **13.1. GAPS AND SKILLS SHORTAGES IN THE HEALTHCARE VALUE CHAIN**

The health and social development sector are grappling with serious human resources and labour market challenges<sup>39</sup>. These are reflected in high vacancy rates for health and social service professionals. The skills gaps in the current workforce are also brought about by changes in policy and service delivery.

Other challenges in the public sector stem from the availability, allocation and administration of public funds while in the private sector the challenges are due to market forces.

#### **Public & Private Sector Challenges**

According to HWSETA's (2017 – 2019) report<sup>40</sup>, there are gaps that exist in the management of public health operations, its employees and technology, as well as its capital and financial resources. Market forces, working conditions, remuneration and career advancement opportunities are all factors that determine where and for how long people work in a particular job.

- Poor management of the health workforce and deficient leadership contribute to a high attrition rate from the health professions. The high vacancy rates are caused by, amongst other factors: a) inadequate occupational wages and wage differentials between private and public sector b) poor working conditions and the migration of professionals and other workers to countries with better health systems c) migration from rural to urban areas.
- Mismatch of skills demand and supply. In some cases, there are newly qualified professionals available for work but budget constraints in the public and private sector hampers employment of many of these professionals.
- Other factors impacting skills supply in the sector include long lead times required to train health professionals; constrained academic and clinical training capacity; slow graduate output for the health-related occupations and the low retention rate of health service professionals in the public sector.

#### **Skilling of Professionals**

Management competency, leadership and governance capacity remains a key challenge across all levels and segments of the healthcare sector. This is one of the skills that should be prioritised in skilling Opportunity Youth.

Lack of upskilling of community health workers remains a challenge (Interviews HWSETA 2012&2014). With youth unemployment so rife and the NHI on the doorstep, it is critical that skills development programmes focus on upskilling community health workers on these much-needed skills. Community health workers need formal, standardised training in health promotion and disease prevention.

The landscape of workers is mainly filled with temporary staff (mostly volunteers) which presents challenges given the non-committal nature of volunteerism. A high turnover of volunteers means a loss of resources and investment made in upskilling individuals to deliver adequate services and the lack of progression in developing skilled professionals in the field.

#### Investments redirected due to costs

Due to the lack of investment into manufacturing within pharmaceuticals and fewer skills being grown locally as a result of higher imports, manufacturing and process technicians are considered scarce skills in South Africa.

The South African market is also considered to have higher operational costs in terms of factors such as labour and freight especially when compared to markets such as India and China. The market size of the South African industry is small and thus inhibits local companies from investing in the likes of research & development as well as in clinical trials.

<sup>&</sup>lt;sup>39</sup> Pmg.gov.za

<sup>&</sup>lt;sup>40</sup> http://www.hwseta.org.za/strategic-planning-documents/

## **14. THE BUSINESS CASE**

### 14.1. WHAT THE LANDSCAPE ANALYSIS TELLS US

Employable skills have been identified as most valuable in reducing unemployment amongst the youth in the healthcare industry. Skills development specifically within the healthcare sector is integral due to COVID-19 pandemic. Focusing on skills development would serve to improve the employability of youth by ensuring that they are developing and being equipped with the right type of skills and being guided on the pathway to professions of demand. The landscape analysis also revealed the importance of removing barriers to youth having access to these programmes. Whether these are financial, academic entry level requirements or lack of guidance about the existence of these programmes, these are just some of the barriers that keep youth from entering sectors where they can gain the right skills to fill critical roles. Therefore, skill development programmes become imperative to reduce unemployment amongst youth and to improve the healthcare system in KZN, noting the high rate of HIV AIDS

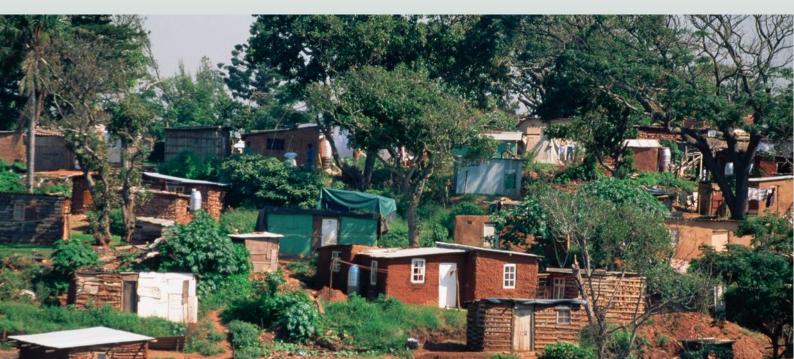
Given the prevalence of HIV/AIDS and TB in South Africa, the significant funding flows from public and private donors to combat both viruses, and the subsequent amplification of community health challenges due to COVID-19, South Africa's allied health sector has substantial, untapped demand. This is especially true for KZN where there is a greater need for rural medical care and in eThekwini where health logistics for the province – and the country in certain cases – is centered.

The health segments in KZN with the most opportunities to upskill youth are in health facilities; pharmacies and dispensaries; and non-profit organisations. There are 54 organisations that were identified with potential to upskill and employ Opportunity Youth in KZN.

A majority of the entry level opportunities identified in the landscape analysis fell within the intermediary and service provider segments of the healthcare value chain. This may be attributed to the specific focus on healthcare programmes in the province, particularly HIV/TB programmes which have a lot of potential to upskill the youth. Healthcare services had opportunities ranging from care workers, hospital caterers, clerks and administrators. There were also vacancies for paramedics and enrolled nurses. Within the intermediaries segment the roles ranged from customer service agents to technical support. Non-Profit Organisations had entry level opportunities in data capturing, testing, office administration, data capturing and community health work.

Apart from the skills gap, barriers also exist in managing human resources in healthcare. There is a high vacancy rate for health and social service professionals, poor planning, inadequate remuneration, deficient leadership and lack of performance management of the health workforce

With government plans to implement NHI in South Africa, there are opportunities for young people to be skilled in areas that support access to primary healthcare, integrated school health programme (ISHP) and district clinical specialist teams (DCSTs).



According to the landscape analysis basic skills that are currently in demand at entry level for youth in the healthcare sector are as follows:

Healthcare Sector	Sectors where we expect skills to grow in demand
Digital Health	<ul> <li>With digital revolution there is a shift towards digital enabled industries including in the healthcare sector. It is now becoming vitally important for one to constantly acquire new skills and adapt. Innovative learning technologies will help with increasing skills development for disadvantage youth and would prepare them for the workforce of the future to thrive in this Digital World.</li> <li>Roles: Data analyst, Data coder, Developer, Programmer</li> <li>Skills: Programming, coding. Computer literacy, research and analytics</li> </ul>
Manufacturing	<ul> <li>95% of medical products used in South Africa are imported. To better manage production capabilities, we can grow entry level production roles in medical device manufacturing and pharmaceutical production. Skills such as motor skills, manual dexterity, assembly ability will be required for these types of roles.</li> <li>Roles: Production technicians, Product Assemblers &amp; handlers, Quality control assistants</li> <li>Skills: Knowledge of product quality standards, product handling and assembly, mathematics knowledge</li> </ul>
Customer Service & Sales	The current COVID-19 pandemic saw an increase in the utilization of contact centres, this has now become a trending hot skill. As healthcare becomes more digital, skills such as communication, active listening, and problem solving would be more in demand. <b>Roles:</b> Sales agent, Customer service Agent, Customer relationship managers <b>Skills:</b> Phone support, Customer service metrics, Call center operations, Phone support Customer relationship management
Health Care Services	The skills shortage in health care services has become more visible with the current COVID-19 pandemic. Additional strain on the healthcare services highlights how urgently this skills shortage needs to be addressed with skills such as pharmacy technicians scheduling and data capturing. <b>Roles:</b> -Nursing support worker, medical secretary, caregivers, pharmaceutical technician, ambulance assistant, administrative assistance <b>Skills:</b> Knowledge of biology and physiology, Computer skills, mathematical ability, Administration, Filing, Driving ability
Intermediary Services	There is greater emphasis on improving the quality and access to healthcare services to drive better health outcomes. Roles such as Community Health Worker, Lay Counsellors, DOT Supporters are key in improving health outcomes. <b>Roles:</b> Community health worker, Filing/Admin clerk, data capturer, community/telephonic tracer, HIV/COVID-19 Screener, Lay counselor, Research assistant, DOT supporters <b>Skills:</b> Data collection, data analysis, computer skills, telephonic ability, counseling, research and writing skills
Supply Chain	As the demand for medical goods and services from manufacturer to reach patients increases there is a great need to improve efficiencies in the supply chain. Skilling youth in procurement roles will be beneficial to the healthcare sector. <b>Roles:</b> Logistics, Procurement assistant, Forklift handler, Stock clerks

**Skills:** Driving ability, Knowledge of procurement processes, Inventory and merchandising, record keeping, computer literacy

### **14.2. EMPLOYMENT PATHWAYS TO PRIORITIZE**

Sustainable youth employment pathways are created from skills development, career guidance, learnerships, placement services and other wrap-around services which are all critical to support youth. Thus, it is imperative to have clearly defined employment pathways to support youth in making informed choices about their careers and most importantly to contribute towards much needed skills in healthcare. Employment pathways enable a more proactive approach to placing youth in sustainable employment by ensuring that the demand for skills is matched with a healthy supply pipeline. The image below reflects prioritized career opportunities for roles that have been identified as being in-demand through the landscape analysis.



The youth would benefit from a clear pathway which provides a career journey, a possible personal career development plan, offer skills development in high-demand jobs, on-the-job learning opportunities and ongoing coaching and mentoring that can lead to career progression.

Career pathways are also beneficial to employers in:



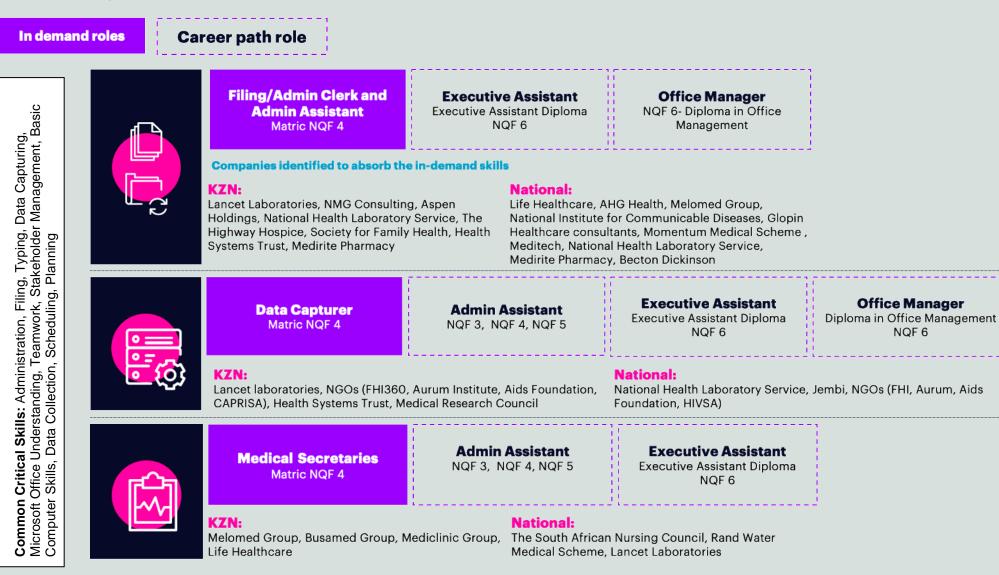


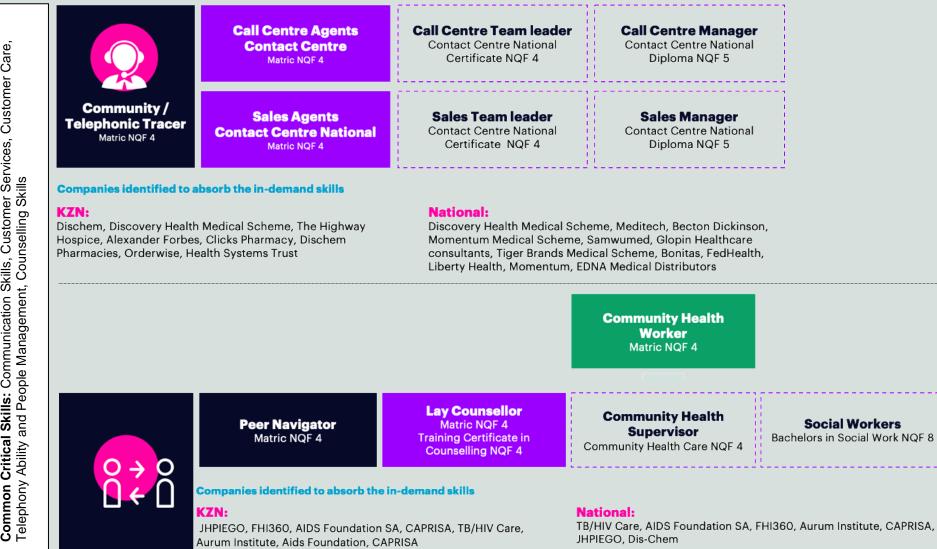
Increasing knowledge transfer through on-the-job learning from an experienced mentor, resulting in increased productivity

Reducing recruitment costs by creating reliable pool of qualified workforce

Although these in-demand roles are at entry level, beneficiaries can progress with guidance along these identified pathways, with clearly visibility of their next career progression. Here is a view of pathways for in-demand roles:

#### **Intermediary Services and Customer Services**





## Digital Health, Supply Chain and Manufacturing

	<b>Data Analysts</b> Matric NQF 4	<b>Data Scientist</b> Certificate in Data Science NQF 5	Business Intelligence Analyst Business Analysis Certificate NQF 5	<b>Market Research Analys</b> National Diploma in Market Analysis NQF 7
	KZN: Deloitte, KPMG, PwC, Medical Resear		<b>National:</b> Meditech, Momentum Medical Schen Deloitte, KPMG, PwC, Dalberg	ne, Abbott Laboratories, Accentu
	<b>Coders</b> Matric NQF 4	<b>Developers</b> National Certificate in IT NQF 4	<b>Programmers</b> IT Systems Developer NQF 5	<b>Software Engineer</b> Higher Certificate NQF 5
	Companies identified to absorb the KZN: Orderwise, Clicks Pharmacy, Simm I		<b>National:</b> Clicks Pharmacy, Jembi, Orderwise, Dimagi, Accenture	Mezzanine Ware, Spensnet, Qod
	<b>Stock Clerks</b> Matric NQF 4	<b>Procurement Officer</b> Certificate in Procurement Management NQF 4	<b>Procurement Specialist</b> Higher Certificate in Procurement Management NQF 5	
D	<b>KZN:</b> Dis-chem Pharmacies, Clicks Pharm Pharmacy, UPD, Transpharm, Imper		acies, Clicks Pharmacy, Medirite Transpharm, Imperial, EDNA Medica	' 
0	Quality Controllers Matric NQF 4	Quality Control Inspector Inspection and Assessment NQF 4	Quality Control Manager Inspection and Assessment NQF 5	
	<b>KZN:</b> Aspen Holdings, National Bioproduc Medpro, Ampath Laboratories, Lanc Amcor, Fresenius Kabi Manufacturin National Blood Service, Beier Drawte	et Laboratories, Laboratories, Patl g, South African Ascendis Health,	ies, Biovac Institute, Roche, Ampath hCare, Lancet Laboratories, Amcor, Nestle, AstraZeneca South African National Blood	

Based on our landscape assessment, there are stable employment opportunities to grow and sustain selected careers within the health sector. Youth are best positioned to begin their career journey through entry level roles and progress through a clearly defined pathway. The healthcare sector offers a variety of career options to the youth to gain various skills not just in healthcare services but in manufacturing, supply chain, customer services, digital health and intermediary services.

The intermediaries segment has the greatest potential to employ youth in roles such as community health worker, lay counsellors, peer navigators, HIV and COVID screeners and data capturers. This is due the extensive investment in HIV and TB programmes and COVID response initiatives in the country.

Customer services also has potential to absorb youth in entry level roles as these roles do not require formal qualification. The Business process outsourcing sector in KZN is large and growing, with capabilities in the healthcare sector but also great potential to expand into the ecommerce sector. Several large healthcare organisations have already set up call centers in KZN – Discovery Health Medical Scheme, The Highway Hospice, Alexander Forbes, Clicks Pharmacy, Dischem pharmacies, Orderwise and Health Systems Trust. The growing BPO sector provides an opportunity to absorb youth by employing them in entry level positions as call center and sales agents and given that call centers require agents to be proficient in one or more of the official languages, this is a skill that most youth have. The local healthcare industry also provides a huge growth potential for international BPO delivery because of South Africa's first world infrastructure and enabling environment, provision of significant costs savings and strong foundation in contact center and niche areas of work – providing further opportunities to grow employment opportunities amongst youth and contribute greatly to close the youth unemployment gap.

This sector is also anticipated to grow driven by an increase in delivery of healthcare services via Telehealth platform. This will absorb more skilled professionals into the field and therefore provides further opportunities for skilled youth in the healthcare sector.

### 14.3. SCALING THE PROGRAMME

Focusing on critical skills for in-demand roles would help scale the programme beyond the pilot and have greater impact. Prioritising these skills will address in-demand roles which are ready to be filled by companies as identified in the landscape assessment. Majority of health skilling programmes typically target public sector employers and donors, but scale can also be achieved through focusing on the private sector by building an approach that targets private sector clients. The approach would be focused on the entire allied health value chain, not just service providers and provide a similar focus to the private sector as to the public sector. There is an opportunity for companies to co-invest in order to exponentially scale the skills development programme. As illustrated in the employment pathways the landscape assessment has identified common critical skills which are relevant across roles. For example, in customer services, if companies like Discovery Medical Scheme, Clicks and Dischem co-invested in skills development for these roles, 40 beneficiaries (based on the maximum number of roles available) from the programme can be absorbed by these companies.

Pathway		* Potential number of roles available	Post Pilot	Post Pilot	Year 3 Post Pilot +3% increase
•	Community/Telephonic Tracer Call centre agents Sales agents	20 – 50	21 – 52	21 – 55	22 – 55
•	Peer Navigators Lay Counsellors Community Health Workers	15 – 40	15 – 41	16 – 42	16 - 44

Pathway	* Potential number of roles available	Year 1 Post Pilot +3% increase	Year 2 Post Pilot +3% increase	Year 3 Post Pilot +3% increase
<ul> <li>Filing/Admin Clerk and Admin Assistant</li> <li>Medical Secretaries</li> <li>Data Capturers</li> </ul>	25 – 50	26 – 52	27 – 53	27 – 55
Data Analyst	20 – 40	21 – 41	21 – 42	22 – 44
Coders	10 – 20	10 – 21	11 – 22	11 – 23
Stock Clerks	15 – 30	15 – 31	15 – 32	16 – 33
Quality Controllers	20 – 40	21 – 41	20 – 42	22 – 44
Logistics	10 – 25	10 – 26	10 – 27	11 – 27
Total Expected Programme Scaling	115 – 245	118 – 253	120 – 260	125 – 270

\*The potential number of roles available is based on an estimated from our industry analysis



## **15. VALUE PROPOSITION**

### **15.1. HUMAN RESOURCES FOR HEALTH**

The healthcare sector is currently experiencing challenges in managing of its workforce resulting in poor service delivery in healthcare facilities. This, at times is as a result of poor coordination at different spheres of government and lack of leadership, management and governance. Therefore, it is important to emphasize human resource for planning, including planning and budgeting to meet health needs.

One of the major challenges in the healthcare sector is that many critical health posts remain vacant and need to be filled. This is not as a result of lack of healthcare skills, but rather a lack of planning for the pipeline of healthcare human resources in the system. Inadequate remuneration is also one of the challenges in the healthcare sector. Remuneration of Work Outside Public Sector (RWOPS) needs to be reviewed as it impacts on service delivery. Having already skilled youth in basic healthcare, e.g. lay counselling, data capturing etc. will go a long way in closing the gap in the public healthcare system due to human resources for health leaving the public sector for the private sector. Training youth using a robust skills development model that aligns building critical skills with requirements within the healthcare sector will provide youth with employment opportunities through deploying youth to these healthcare facilities.

Education, training and skills development programmes must focus on (1) collaboration to ensure the right skills are prioritised earlier in an education career); (2) planning to ensure the necessary funding is pipelined to fill vacancies and appropriately remunerate high skill roles); and (3) thoughtful, performance-based partnerships to remove the siloes and facilitate both the collaboration and planning.

In addressing skills supply this programme will forge a strong partnership between government, business and training providers to ensure effective and successful long-term placement for youth. This will contribute towards decreasing unemployment rate by empowering disenfranchised youth through work experience in the healthcare sector. As Opportunity Youth contribute meaningfully to the strengthening of South Africa's healthcare system, they are also empowered to make healthy choices and through content created for youth by youth.

## **15.2. VALUE TO CORPORATES**

There is value in organisations prioritizing the focus on youth employment through corporate social responsibility initiatives. Youth are the bedrock of future talent and investing in in-demand skills will allow corporates to create a pool of real healthcare talent. Some of the benefits to corporates include:

- Employers will meet their BBBEE (Broad Based Black Economic Empowerment) and EE targets/scorecards as skills development is one the five pillars on the BBBEE score card. The intention of BBBEE is to stimulate the process of participation of previously disadvantaged groups the economy with the expectation of increased economic growth.
- Obtain tax benefits from learnership which provides an additional tax deduction for formal SETA
  registered training programmes. The learnership tax incentive was introduced to encourage skills
  development and job creation.
- Recover skills development levy spend and use tax incentives to reduce training costs. The Skills
  Development Levy (SDL) was imposed to encourage learning and development in South Africa and is
  determined by the employer's salary bill.
- Implement a CSI projects which includes education, skills development and humanitarian initiatives as part of giving back to the communities.
- **Reduced employee health costs** by investing in community health which has a potential to reduce employee health care costs, expand future access to health workers, benefit their reputations, and engender greater consumer and employee loyalty.
- Reduced recruitment costs with placement of youth with the right skills for the job. Organisations will have
  to focus on employee retention versus recruitment.



Increase in productivity Influence

& Visibility



Improved

Quality

Performance



Improved Staff

Morale &

Turnover



Increased capacity & capability of critical healthcare functions

#### **KEY STAKEHOLDERS** 16.

In eThekwini, based on the priority allied health pathways identified, there is a unique consortium of stakeholders that would be valuable to involve in the process of designing interventions based on the health pathways identified in this report. They could provide, among other things:

- Channels for youth absorption, collectively driving scale •
- Access to thought leadership, digital tools and platforms, and structured programmes
- Insight on scarce and critical skills varied by industry-nuanced demand and influential to development of OY • programmes
- Co-funding and co-sponsorship opportunities
- Increased collaboration, networking, and partnership opportunities between stakeholders, especially for the . youth
- Recruiting of OY to and from GOYN programming .
- Increased ability to Influence Policy and system change through the collaborative infrastructure



**Businesses:** On a national basis, the Corporate Social Investment (CSI) report by Trialogue shows that 79 South African companies invested over R10.2 billion in 2019, a 5% increase over 2018 (this is an undervaluation, given that only funding from survey respondents is included). On average, the CSI contributions from South African corporates cover cash and non-cash contributions to almost five sectors. The sector receiving the main bulk of CSI contributions is education, with 94% of companies having some form of educational support programme. Half of companies' aggregated CSI spend in 2019 was on education, with social and community development the second most supported area, ahead of health, with 77% and 51% of corporates funding these sectors, respectively.

**Skilling Providers:** Sector Education and Training Authorities (SETA) are mandated by DHET to conduct tracer studies every year to analyze the impact of training interventions. These tracer studies track whether trained youth are employed or have ventured into entrepreneurship. The studies are consolidated in the National Learners' Record Database (NLRD). However, SETAs face a challenge of maintaining contact with learners while conducting the study, as learners often change their contact details over the course its duration, with no formal process to keep their information up-to-date in SETA databases and thus making tracing an almost impossible task.

## **17. RECOMMENDATIONS AND QUICK WINS**

#### Prioritize in-demand skills

The landscape assessment highlighted skills and roles that are in-demand in the healthcare sector. This should inform the shaping of the programme to ensure that youth are skilled to contribute meaningfully in the healthcare sector. Roles requiring basic skills at entry level should be prioritized.

#### Provide direct interventions for youths for related training courses

The phenomenon of youths moving between unrelated training courses is made possible because of a distorted incentive structure that encourages youths to go 'horizontally' across different courses and because different databases do not 'talk to each other', making it impossible to spot youths that are seeking new training spaces rather than stepping towards their chosen vocation.

Before interventions can be planned, the size of the issue needs to be better understood, which means that systems need to be put in place to collect and share data across course providers.

#### 'Growth mindset' skills must be taught to youths

In order to catalyze a broad-scale mindset shift from 'fixed' mindsets to 'growth' mindsets, more coaching is needed at a grassroots educational level. This will involve better collaboration between SETAs and businesses, where businesses describe the 'on the job' attitudes they are seeking, and SETAs translate these requirements into trainings and assessments that better simulate the skills and demands of a workplace environment.

#### Fully utilize youth skillsets

In tight labour markets, there is fierce competition to be placed in a limited number of jobs, meaning that menial roles can end up being filled by people that are overqualified to perform that role. Unless businesses start to build career progression plans for their new employees, charting how and when they might be able to move through the company into more interesting or better fitting areas of the business, new recruits can quickly become despondent and terminate their employment, which is a waste of talent for the business.

#### Data lies at the heart of the solution

Businesses should start to collect data on each new employee's aspirations, talents and qualifications so that they can determine which new recruits are not utilizing their skills and are likely to leave the company. Based on this data, skilling and promotion pathways can be drawn up with progression points to periodically assess personal development.

#### Training providers must be accountable for transitioning students into employment after training

Specifications should be formulated for promoting school-to-entrepreneurial business launch, or school-to-work programming. Full-service programming should span the spectrum of services from early preparation for subject choices in schools to employability training and support. Programming should also embody placement and referral services and follow-up support.

# **18. CONCLUSION**

The South African Government has an extensive number of policies and plans pertaining to youth-employment. On a national level these include, but are not limited to, Broad-Based Black Economic Empowerment (BB-BEE), the Employment Tax Incentive (ETI) and the Presidential Youth Employment Intervention<sup>i</sup> (PYEI), which 'is the largest and most comprehensive plan that has been established to address youth unemployment in South Africa's democratic history'. PYEI is a five-year plan to effectively transition youths into the labour market by encouraging more multi-stakeholder partnerships with the private sector. Below are considerations to be made to address youth unemployment and to successfully create long term employment opportunities in the healthcare sector:

- a. Build a national Pathway Management Network allowing youths to access support services and workplace readiness training, grow their employability and pursue work opportunities. The platform should promote critical healthcare skills required and provide services for career mentorship. The hub will also be a means of matchmaking healthcare skills in demand with youth interested in those specific skills.
- b. Place 300 youths in demand-led roles in the healthcare sector focusing on digital health, manufacturing, supply chain, intermediaries, health services and customer services. This will be achieved via collaborations with Sector Education and Training Authority (SETA), the National Skills Fund (NSF), NGOs, business and other sector bodies.
- c. System-wide enablers, such as internet connectivity, clearly defined employment pathways and commitment from employers will support successful employment and long-term placements for youth
- d. Work-based placements and work-integrated learning opportunities will be provided through identified companies and NGOs in the landscape analysis.
- e. Market awareness and clearly defined business case of the programme to amplify impact long term creating opportunities for youths to contribute to their communities, whilst developing critical skills and building confidence and networks.
- f. All skills development training should be accredited according to the NQF, a registered South African qualification. Accredited training will allow skills development courses will allow beneficiaries to accumulate credits for successful completion of a unit standard towards an NQF qualification

It is our hope that this assessment, and the implementation of its recommendations through the Global Opportunity Youth Health Pathways Initiative, will provide a powerful use case through which allied health pathways can be scaled, with Opportunity Youth at the center of the conversation.

# **19. REFERENCES**

- https://dbei.gov.ie/en/What-We-Do/Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Highly-Skilled-Eligible-Occupations-List/
- https://briefly.co.za/26159-list-scarce-skills-south-africa-2020.html
- <u>https://www.gov.za/about-sa/health</u>
- https://www.investec.com/en\_za/focus/beyond-wealth/is-south-africas-healthcare-system-prepared-forcovid-19.html
- http://www.hwseta.org.za/strategic-planning-documents/
- http://www.health.gov.za/index.php/2014-03-17-09-09-38/strategic-documents
- http://www.scielo.org.za/pdf/samj/v104n5/08.pdf
- https://link.springer.com/article/10.1186/s12913-020-05080-1
- https://pdfs.semanticscholar.org/dd4d/77579c0a76fbb89b6fdafd2fb08fa980786f.pdf
- http://www.samed.org.za/DynamicData/LibraryDownloads/60.pdf
- http://www.ibe.sun.ac.za/media/sites/14/2019/07/Manufacture\_Medical\_Surgical\_Orthopaedic\_Appliances \_2014-who-owns-who.pdf
- https://www.monster.com/career-advice/article/10-jobs-growth-decade-health-care
- https://www.mdmsa.org.za/membership/member-search
- https://hasa.co.za/our-members/
- https://www.nhls.ac.za/
- https://www.medicalschemes.com/MedicalSchemes.aspx
- https://www.home.nla.org.za/
- https://www.biotecharticles.com/Industry-News-Article/Biotechnology-Companies-in-South-Africa-Human-Health-332.html
- http://www.contractresearchmap.com/places/south-africa
- https://www.getsmarter.com/blog/career-advice/job-demand-10-years/
- https://www.africahealthexhibition.com/en/media/Press-Releases/the-real-cost-of-the-skills-shortage-in-sahealth-sector.html
- https://businesstech.co.za/news/government/346538/south-africa-is-a-facing-a-doctor-shortage-heres-why/
- https://businesstech.co.za/news/business/333383/south-africa-is-in-desperate-need-of-these-10-job-skills/
- https://www.weforum.org/agenda/2016/05/south-africa-skills-shortage-how-do-we-fix-it/
- https://www.iol.co.za/travel/south-africa/reasons-behind-sas-skills-shortage-388859
- https://www.southafricanmi.com/education-statistics.html
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6556866/#:~:text=South%20Africa%20currently%20faces%2 0a,cardiovascular%20diseases%2C%20diabetes%2C%20chronic%20respiratory

## **20. APPENDIX**

## 20.1. DATA COLLECTION METHODOLOGY

#### Identify and define healthcare segments

The findings of the already existing GOYN market intelligence report were used as a starting point. The healthcare segments which have been defined and are under review are: *Production, Distribution, Service Providers, Intermediaries and Payers*.

The segments are further divided into sixteen sub-segments according to service offerings (as illustrated in the introduction section)

Data collection. The data was collected through a desktop research exercise on the healthcare industry in South Africa. The research focused on the key aspects below:

- Identification of key players across the healthcare industry geographical location of organizations' key operations in South Africa and key service areas of focus.
- **Employment opportunities** available and career growth opportunities. This was divided into three categories, that is:
- Entry level opportunities exploring any entry level opportunities either advertised as vacancies or as an entry level programme such as an internship, graduate programme or apprenticeship.
- Career growth opportunities exploring career growth opportunities organisations have. This was informed through organisations career development programmes and emphasis of career growth pathways, support and opportunities available for employees who join the organisation.
- Corporate Social Responsibility *Programmes* specifically focused on skills development and community upliftment which can be deemed as alternative employment entry pathways into an organisation for Opportunity Youth.
- Healthcare skills market demand
- Skills required across the value chain and skills gaps in healthcare
- Long-term employment opportunities in the healthcare industry

#### **Data Analysis & recommendations**

- The data collected was analysed to inform where the areas of opportunities lie across the healthcare industry as well as to inform where there are skills gaps.
- The final data set included organisations which provided the most information on the parameters of interest. More specifically:
- Locations of operations of the organisation
- Key areas of service offerings
- Entry level employment opportunities in the form of either job vacancies, graduate programmes, apprenticeships, internships or direct entries
- Corporate Social Responsibility/Initiatives with a focus on skills development, and community upliftment through education
- Career growth opportunities in the form of career development programmes and vacancy posts within middle management and executive levels for said organisation
- The information gathered for the landscape assessment was used to inform the business case and the suggestions put forward in the business case

## **GLOBAL OPPORTUNITY YOUTH NETWORK – HEALTH CARE LANDSCAPE ASSESSMENT** 20.2. DATA PRIORITISATION APPROACH

Level O	HEALTHCARE SEGMENTS	<ul> <li>Production, Distribution, Service Providers, Intermediaries, Payers</li> </ul>
Level1	SUB-SEGMENTS	<ul> <li>Pharmaceuticals, Device Manufacturers, Diagnostic Services, Alternative Medicine, Non-profits, Healthcare Services, Biotechnology etc.</li> </ul>
Level 2	LOCATION	<ul> <li>South Africa will be considered as a whole with an additional focus on KwaZulu Natal as a province</li> </ul>
Level 3	SERVICE THEME	<ul> <li>Organisations will be grouped into themes depending on the nature of the service provided</li> </ul>
Level 4	SUB-THEME	• Further sub-categories may exist within level 3

#### Final list of organisations

In shortlisting the most viable organisations that could potentially upskill and employ Opportunity Youth the following were taken into consideration:

- Whether the organisations had any entry level employment opportunities in the form of job vacancies, graduate programmes, apprenticeships, internships or direct entries. This is important as the target audience is Opportunity Youth between the ages of 15 – 34. It is highly likely that the Opportunity Youth are entrants to the workforce and have very little work experience thus these pathways to enter the formal employment sector are key to gaining skills.
- Whether the organisation had corporate social responsibility initiatives with a focus on skills development
  and community upliftment through education. This was important as it is a potential point of entry for
  unemployed youth who may not have formal higher education but still need skills in order to enter the
  workforce and become more employable.
- Career growth opportunities in the form of career development programmes and vacancy posts within
  middle management and executive levels. Growth opportunities in a career are important as they motivate
  and provide incentives for individuals to grow through gaining more skills, but also allows the opportunity for
  other young people to have the same experience by being in the same position.

### 20.3. SAMPLE ROADMAP TO HEALTH PATHWAY PROGRAMMING

The skills development roadmap connects the challenges that the Healthcare Sector is facing with the essential skills they need to be successful. These skills should continue to evolve and adapt in order to meet the changing healthcare conditions. This roadmap has the information needed to steer skills development, fuel sustained success and prepare beneficiaries for what's next.

	3 months	6 months	Year 1	Year 2
Define Skill Demand	SHIORUS	omonuis	Teal	
Understand required roles				
Understand role profiles				
Understand private healthcare				
Understand public healthcare				
Define the skills demand				
Candidate Interviews				
Recruitment				
Competency Evaluation Assessments for technical skills				
Assessments for soft skills				
Anayse Competency Gaps				
Prioritize Competency Development				
Match Organisation and Skills				
Career Discussions				
Personalised skills development plan				
Skills Development				
Technical Skill Development				
Soft Skills Development				
Product & Services Training				
Development Techniques and Methods				
				-
Work and Learn placements Learner Relationship Management				
counter relationarily Management				
Mentorship				
Mentorship and feedback Job shadowing				
Coaching				
oddoning				
Graduation				
Placement				
Post Placement				
Sustainability				
Re-skilling and Upskilling				
Cross Skilling				

## 20.4. LIMITATIONS OF THE ASSESSMENT

In conducting the landscape analysis, the below limitations were identified:

- Assessment data limited to desktop research: the landscape assessment exercise was limited to desktop research. This restricted the information that could be gathered as the primary source of data was the information found online.
- Data gathered is purely based on company online presence: the data and information gathered is primarily based on the world wide web and whether the organisations have any presence on the internet. Lack of information available online resulted in gaps in the data.
- Accuracy of information: due to the data collection being only a desktop research the primary source of truth is based on what was acquired online. Data may have been inconclusive as some organisations either do not have strong online presence or do not have all the company information required on their websites. This is especially prevalent on employment opportunities advertised on company websites. There was lack of information in some segments such as the Payers and Alternative Medicine.
- Alternative recruitment avenues: data collected on employment opportunities available was collected on the company websites. There may have been some employment opportunities missed as they were

not advertised as vacancies on company websites. This may be due to alternative recruitment methods such as the use of private recruitment agencies, job sites and internal recruitment.

• **COVID-19 economic impact**: availability of employment opportunities has been impacted by the COVID-19 pandemic. A multitude of job freezes, and job losses were expected due to the economic shutdown experienced from COVID-19. This resulted in fewer employment opportunities available and advertised online.