



**future
health
index**
2017

SOUTH AFRICA
LOCAL MARKET REPORT



Introduction

To construct the health ecosystem of the future, we must first listen to the main users of this system – people and healthcare professionals – and understand their expectations and experiences. Second, we must investigate how technology is already transforming lives in different health systems around the world and how it can empower society even further.

This is the Future Health Index, a comprehensive record of where we are on the road to better health outcomes achieved at lower cost and how we are progressing to meet future healthcare needs. The Future Health Index provides a platform for discussing where governments and businesses should concentrate resources to enable a revolution in the way healthcare is being delivered and experienced.

This is the second annual in-depth study, based on the input and self-reported behaviors of the general population and healthcare professionals throughout 19 geographically and developmentally diverse countries, including South Africa, which collectively produce a snapshot of how healthcare is experienced on both sides of the patient-professional divide; it highlights the opportunities and barriers to a more connected and integrated form of healthcare that will better serve future generations.

The Future Health Index (FHI) provides a benchmark for a country's readiness to meet some of the key healthcare challenges emerging globally. It also explores readiness of how people's perceptions match the realities of healthcare. If we are to reshape the future, it is vital to address gaps between what exists and what is desired. And to better understand how to deliver the right information and tools, in the right time and place, to maximize impact in health experiences and outcomes.

It is a difficult truth that one of the greatest achievements of modern times – the overall global advance of public health – has created one of humanity's most pressing dilemmas. Around the world, healthcare systems are under strain as populations swell and grow older, helped by the extension of sanitation and medical services, as well as breakthroughs in technology and disease treatment. This report takes a closer look at the perceptions of South African respondents in particular, and their views on the South African healthcare system.

The FHI provides insights for conversations on ways to meet the emerging healthcare challenge, with a focus on increasing access to healthcare, integrating systems, and promoting the adoption of connected technology – all of which combine to enhance efficiency and outcomes.

To see the full 19-country research visit: www.futurehealthindex.com

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I. What is the Index?

Since 2016, Royal Philips has conducted the Future Health Index (FHI) research in order to better understand perceptions towards connected care technology and the role it plays in the future of healthcare. In 2017, we build on the 2016 study to address the current realities of healthcare outcomes, now across 19 countries in five continents.

This year, the study provides a unique comparison of perceptions/personal experiences and the reality of how well healthcare systems are set up for the future, obtained from via secondary research from World Health Organization, the World Bank, and International Data Corporation (IDC). The secondary research was combined with the perceptions data gathered from the survey, to create indices focused around the following pillars: access, integration and adoption.

The perception side of the Future Health Index (FHI) is calculated by combining the quantitative survey responses from the general population and healthcare professionals equally to create three index scores to measure: access (across the health continuum); integration (of health system); and adoption (of connected care technology). Each index ranges from 0 to 100 points. The three perception index scores are based on a series of question groupings (or components) that draw from a distinct theme in the questionnaire. The reality side of the index incorporates third party data with various metrics grouped into similar three indices (access, integration, and adoption). The metrics are normalized to ensure comparability across countries and scored to fit onto a 0 to 100 scale.

The scores for each metric are then averaged to calculate each reality index score. The Future Health Index (FHI) allows for a holistic view of the state of healthcare and any associated gaps between perception and reality in 19 markets around the world.



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Healthcare Professional Perspective

“If you look at healthcare in South Africa - it has one of the best in Africa. As far as healthcare availability is concerned, I think it has got excellent healthcare facilities. However, if you look at the government sector, basically, I think in most of the urban centres, like in the big centres - Kazidan, Gauteng and the Western Cape - resources are very stretched because of the population migrations that happen. Although they have quality medical care, and the institutions, the quality of care at the primary care level is not as good.”

PULMONOLOGIST, 12 YEARS' EXPERIENCE, PUBLIC



II. Key Findings

In both the access and integration areas, South Africa's perceptions do not align with the realities of the health system. However, this gap between perception and reality is much smaller in the adoption space. Average perceptions to access and integration along with below-average reality scores create large gaps for these indices, indicating ample room for growth.

FUTURE HEALTH INDEX 2017

	2016	2017				
	South Africa Perception	19-Country Average: Perception	19-Country Average: Reality	South Africa Perception	South Africa Reality	South Africa Perception vs. Reality Gap
Access Sub-Index:	63.2	66.9	64.6	61.0	34.2	26.8
Integration Sub-Index:	55.3	54.9	24.1	50.3	12.4	37.9
Adoption Sub-Index:	51.6	50.8	57.8	50.3	55.7	5.4
Overall Index:	56.7	57.6	48.8	53.8	34.1	19.7

EFFICIENCY RATIO 2017

	South Africa Score	19-Country Average
Input (healthcare spend as a percent of GDP):	8.8	8.7
Overall outcome score:	38.7	80.3
Efficiency ratio (outcome/input):	4.4	10.5



III. Detailed Key Index Findings

Access to healthcare

Perceptions of access to care across the continuum are slightly below the 19-country average (61.0 vs 66.9), while the reality sub-index score is significantly below average (34.2 vs 64.6), resulting in a wide gap of 26.8 for South Africa.

- South Africa's perception of access is driven by South Africans' and healthcare professionals who believe that the general population have access to a majority of the phases across the continuum. At least half of the general population and healthcare professionals alike believe they have access to preventative care, diagnosis, treatments and healthy living. However, the overall perception of access was dragged down by fewer respondents believing they had access to resources for home care (general population: 49% and healthcare professionals: 36%).
 - > South Africa's reality access sub-index score was significantly lower than average due to a lack of skilled health professionals in relation to the size of the population and a higher than average risk of impoverishing expenditure for surgical care.

Integration of health systems

Perception of integration of the health system is slightly below the 19-country average (50.3 vs. 54.9). However, with a reality score of 12.4, this sub-index score for integration is significantly lower than average (24.1), which resulted in a wide gap (37.9).

- South Africans and healthcare professionals do not feel that health system is integrated, driving the average perception score down. However, a majority of both South Africans and healthcare professionals alike (75% and 83%) believe integration is important to healthcare. Additionally, both groups believe in the improvement of the quality of care via integration (72% of general population and 84% of healthcare professionals).
 - >South Africa's reality score was driven down by low services-related expenditures on Internet of Things (IoT) in healthcare services as a percentage of GDP compared to other countries, showing significant room for growth if investments are made.

Adoption of connected care technology

The gap of 5.4 between perception (50.3) and reality (55.7) scores relating to adoption is fairly narrow with both scores being in-line with the 19-country average.

- Perceptions of knowledge and usage drove the average perception sub-index score to be in-line with the 19-country average. While 66% of healthcare professionals believe they are knowledgeable about connected care technologies, just 37% of South Africans feel the same. Additionally, healthcare professionals and the general population do not generally believe that connected care technology is being used across the health continuum.
- The reality score for adoption in South Africa is dragged down by lower spending on Internet of Things (IoT) hardware in healthcare as a percentage of GDP in comparison to other countries

Efficiency Ratio

Health expenditure compared to the health of the population

- South Africa's efficiency ratio is the lowest out of the 19 countries in this study (4.4 compared with 10.5 on average) indicating considerable inefficiencies. This score is a result of average healthcare spend as a percentage of GDP and considerably below average health outcomes.

IV. Other Findings

General Attitudes to Health and the Healthcare System

1. While South Africans generally evaluate their health positively, healthcare professionals are less optimistic, implying that the general population may be sleep-walking into poor health.

- A majority (80%) of the general population in South Africa generally rates their current health positively (good, very good or excellent). However, just one third (33%) of healthcare professionals agree that the overall health of the population in South Africa is positive.
 - In fact, the majority (67%) of healthcare professionals rate the population's health as poor or fair, a considerable increase from 2016 when 49% of healthcare professionals rated the nation's health that way. Since healthcare professionals are exposed to health on a larger scale in the country, this group of professionals may be providing a warning sign to the population at large regarding health.
- South Africa's healthcare professionals' views on the health of the overall population are among the lowest within our 19 country study where an average of 63% of healthcare professionals rate their own nation's health positively (good, very good, or excellent). Only Russia (4%), Brazil (9%) and China (26%) are lower.
- ****Additionally, according to an analysis in The Lancet , South Africa is ranked 134 out of 188 on its list of healthiest countries. This further supports, perceptions of South Africa's healthcare professionals.***

2. Healthcare professionals and the general population also have differing opinions about the health system in South Africa, as they see a discrepancy between healthcare offered in public and private settings.

- While nearly half (46%) of South Africa's general population agrees the healthcare available to them via the health system meets their needs, just a third (30%) of healthcare professionals agree, meanwhile 44% of healthcare professionals disagree.
- Additionally, about two thirds (65%) of healthcare professionals in South Africa rate healthcare overall in the country as poor or fair, an increase from 42% in 2016.
- Healthcare professionals' weak perceptions of healthcare in South Africa are likely driven by their perceptions of access to care across the continuum. South Africa's healthcare professionals are less likely to agree that their patients have access to care across all phases of the continuum compared with the 19 country average. Patients' (those who have been to see a healthcare provider in the last three months) views on access to these resources slightly vary from those of healthcare professionals, especially regarding prevention and home care.
 - **Qualitative interviews with healthcare professionals show considerable discrepancy in public and private institutions.**

* Measuring the health-related Sustainable Development Goals in 188 countries: a baseline analysis from the Global Burden of Disease Study 2015, September 21, 2016 ([http://thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(16\)31467-2.pdf](http://thelancet.com/pdfs/journals/lancet/PIIS0140-6736(16)31467-2.pdf))

3. There is a discrepancy between the proportion of the government's budget that is spent on healthcare that the general population and healthcare professionals expect compared with reality.

- South Africa's healthcare professionals and the general population think that about 23% of the government's overall budget should be allocated to healthcare.
- However, total expenditure on health as a percentage of government expenditure was only 14.23% in 2014 according to the World Health Organization, Global Health Observatory Data Repository (Expenditure on health, by country 2014).

Healthcare Professional Perspective

“Of the Health GDP in this country, about 78–79% is used in the private sector and about 21–22% is spent in the public sector. That is the harsh reality; I think when people are trying to understand what is happening in the public health system that has to be considered. Therefore you have a very inequitable relationship in this country between private and public health; this is all because of the legacy of the past.”

CARDIOLOGIST, 7 YEARS' EXPERIENCE, PUBLIC



Prevention and Empowerment

4. The South African general population and healthcare professionals are almost evenly split on whether “sick care” or preventive aspects of care should be prioritized.

- About half (56%) of healthcare professionals believe that they should focus the majority of their time and resources on prevention compared with 42% saying treating the sick should be the priority. The general population are more evenly split with half (51%) believing healthcare professionals should focus on treatment and 48% believing they should focus on prevention.
 - Notably, when asked about their specialization specifically, only 43% of healthcare professionals said that the focus should be on prevention. This may be indicative that healthcare professionals believe that the responsibility for preventive aspects of care lies elsewhere in the system.
- When it comes to allocation of the healthcare budget, the general population believe the budget should be evenly split between preventive measures and “sick care”. Meanwhile, healthcare professionals are more likely to believe that a greater portion of the national healthcare budget should be spent on care for the sick (including chronic care, acute care, assisted living/support for seniors and end-of-life care).

Division of the national government's healthcare budget (average, % of budget)	Healthcare Professionals		General Population	
	19 country average	South Africa	19 country average	South Africa
Preventive measures (medical research, preventive care, general health education)	42.8%	44.1%	44.4%	48.5%
“Sick” care (acute care, chronic care, care for seniors and end-of-life care)	56.8%	55.1%	54.6%	51.1%

Healthcare Professional Perspective

“The way the medical aids are designed - there is no way patients are going to be getting appropriate healthcare and there is no emphasis on preventative meds or follow-up or management of medical problems. The main emphasis is on treating complications and emergencies. I think it just basically has to do with the lack of understanding from the medical aid side and I think it is a major problem going forward.”

CARDIOLOGIST, 18 YEARS' EXPERIENCE, PRIVATE

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5. While both the general population and healthcare professionals in South Africa see the importance of connected care technology in prevention and in health overall, the technology is still perceived to be underutilized.

- Three quarters (76%) of the general population thinks connected care technology is important for improving the prevention of medical issues, as well as the overall health of the population (76%). Healthcare professionals also recognize the importance of connected care technology within these phases of health (81% prevention; 78% overall health).
- However, only 30% of the general population and 20% of healthcare professionals think connected care technology is being used (often or always) when patients use the health system for treatments that will prevent medical conditions from forming. Likewise, just 18% of South Africans and 14% of healthcare professionals say connected care technology is being used when patients are healthy and have no medical conditions.

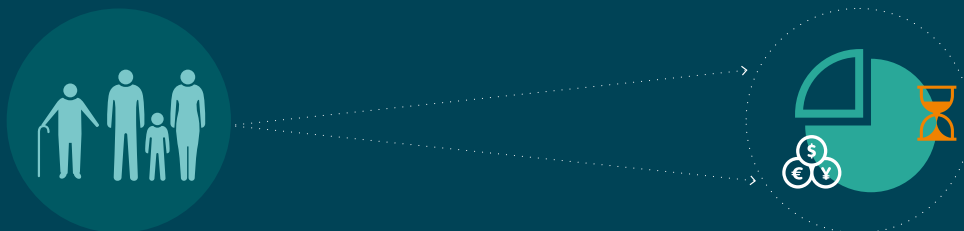
Healthcare Professional Perspective

“Connected care technology becomes quite a nice technology to have, that data is useful. For example, when you treat hypertension, we don’t normally rely on one reading, because that could be masked. You need data that is consistent with the patient’s daily lifestyle, etc. Which makes a lot of difference.”

PULMONOLOGIST, 12 YEARS’ EXPERIENCE, PUBLIC

“Some patients don’t give you accurate info and I don’t always want to believe what they say. I need to verify that. I need to see the actual results. If you can have something where you can log in on the internet or an app that you can just sign in and get everything on there, then it would be great. It would really ease the flow of the patients and also how you treat them and also time-wise.”

FPP, 18 YEARS’ EXPERIENCE, PRIVATE



Health Space Specific Findings

6. South Africans with cardiology issues use connected care technologies to better their own conditions and overall health.

- Overall, South Africans with cardiology experience are more likely than the general population to think connected care technology is being used often or always used during healthy living phase (22% vs 18%).
- Cardiologists say the first step they recommend to patients who are at risk for developing a cardiology issue is improving their fitness (84%). For patients who have already been diagnosed, healthcare professionals say they recommend tracking blood pressure (82%).
 - Of those who had a doctor recommend tracking health indicators, 84% followed the recommendation.

7. Healthcare professionals say they currently do not spend much time on prevention. The implementation of the National Health Insurance (NHI) may result in a more prevention-focused system since, healthcare professionals expect the use of clinics to increase which is where the general population appear to go more often for preventive care.

Healthcare professionals say that currently, the smallest portion of their work, on average, is focused on prevention (23%).

- When thinking about NHI implementation in South Africa, healthcare professionals think the most money should be spent at the primary healthcare provision level (e.g. at the clinic-level) (37%), followed by on staff (e.g. recruitment, training and development) (31%).
 - These factors could imply that healthcare professionals see a needed shift toward healthy living and prevention, as the general population in South Africa reports going to the clinic more than the hospital for these reasons.
- Overall, South Africans generally go to clinics for guidance in living healthy, check-ups and for vaccinations.
- Additionally, when it comes to NIH implementation 42% still think it could have a negative impact

	Clinic	Hospital
For a vaccination or other preventative medical treatment	58%	15%
For a health check-up when you are not sick or having any symptoms of a medical issue	47%	14%
For guidance/assistance in living healthy (e.g., developing healthy eating habits/workout routines, etc.)	39%	11%
For a screening or test for a medical condition	31%	38%
For a long-term treatment plan for a medical condition	25%	44%
For an emergency treatment of an injury or medical condition	19%	65%

Healthcare Professional Perspective

“I think that the sharing of information becomes a challenge when there are some of the older practitioners who still use the traditional pen-and-paper. I think that is falling away, a lot of the doctors are coming to the party and sharing and we all realize it is more reliable record keeping, it is more tight and secure if you put passwords on things, it is fairly easy.”

ONCOLOGIST, 1 YEARS' EXPERIENCE, PRIVATE

8. South Africans and healthcare professionals alike think the health system is unintegrated, although integration is perceived to benefit the health system by both groups.

- Nearly half (46%) of the South African population think the health system in the country is unintegrated. Healthcare professionals feel even more strongly about this (74%), an increase from 2016 (58%).
- Still, three-quarters (75%) of the general population, and even more healthcare professionals (84%) think integration of the health system is extremely or somewhat important.
- Furthermore, a nearly equal amount of the general population (72%) thinks integration would make the quality of healthcare better. Healthcare professionals also think integration would increase the quality of care (84%).
 - Citizens with higher incomes (81%) are more likely to think integration is important than those with mid (72%) or low incomes (72%). As those with higher incomes are likely have more disposable income than their less affluent counterparts, they may have had more access to hospitals with integration than their less affluent counterparts.
- Those in the general population who think the health system is integrated are more likely than average South Africans in general to think they have some or complete ownership of their medical record (80% vs. 68%).

How knowledgeable would you say you are about connected care technologies?w	General population	Patients	Healthcare professionals
Knowledgeable (extremely/somewhat)	37%	37%	66%
Neither knowledgeable nor unknowledgeable	24%	23%	15%
Unknowledgeable (extremely/somewhat)	39%	40%	19%

9. A lack of perceived knowledge about connected care technologies among the general population and long-term cost concerns are some of the barriers to wider technology proliferation. However, training opportunities, government subsidies, and healthcare professional's recommendation may increase the likelihood of use.

- Although 66% of healthcare professionals report being knowledgeable about connected care technologies, only 37% of the general population feel the same way.
 - Notably, only 37% of patients (those who visited healthcare professionals in the past 3 months) also feel knowledgeable about connected care. Nonetheless, the percentage of patients that are knowledgeable about the technology has increased since 2016, where only 25% of patients felt knowledgeable.
- Nonetheless, healthcare professionals and the general population both appear interested in learning opportunities, as two in five (43% healthcare professionals, 42% general population) would be more likely to use connected care technology if there was more training on how to use it.
- In addition to training, efforts to manage cost concerns may be needed as well, since about half of the general population believes that connected care technology would make healthcare more expensive in the long-term both overall (60%) and to them (61%). Healthcare professionals also agree (overall 64%, to the patient 66%).
 - Government subsidies may be one of the solutions to alleviate cost concerns, as 49% of the general population would be more likely to use connected care technology if the government subsidized/paid for it.
- Lastly, working with healthcare professionals to get their buy in on connected care technology is critical, since the top motivator to increase the likelihood of connected care technology use by the general public is if a healthcare professional recommended they use it (50%).

Healthcare Professional Perspective

“I think it is very poorly integrated. For the first time after many years – I think for the last year we actually integrated the lab data. If I punch somebody’s ID number I can finally get his results if they were done in another place or however different provinces do not talk to each other. However, if bloods are done in a private facility using another lab, they are not linked. They are not linked via the whole – it is linked via the doctors. I would prefer having a system that talks to each other.”

PULMONOLOGIST, 12 YEARS’ EXPERIENCE, PUBLIC



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V. South Africa Methodology Information

Qualitative Interviews with Healthcare Professionals (HCPs)

To provide color and context around the quantitative data, the quantitative survey was supplemented with the following 30–45 minute in-depth interviews conducted in partnership with Schlesinger from January 24–February 16, 2017. The following audiences were interviewed in-person or over the phone:

Audience	# of Interviews Conducted
Healthcare Professionals	10 in South Africa

Quantitative Survey (Healthcare Professionals, General Population, Insurance Professionals)

In partnership with IPSOS, an independent global market research firm, a survey was fielded from January 18, 2017 to March 3, 2017 in 19 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, Italy, The Netherlands, Russia, Saudi Arabia, Singapore, South Korea, South Africa, Spain, Sweden, U.A.E., U.K. and U.S.) in their native language. The survey had an average length of 25–30 minutes.

Below is the specific sample size, and interviewing methodology used in South Africa.

	Gen Population			Healthcare Professionals		
	Unweighted Sample Size (N=)	Margin of Error (at 95% confidence level)	Interview Methodology	Unweighted Sample Size (N=)	Estimated Margin of Error* (at 95% confidence level)	Interview Methodology
South Africa	2,168	+/- 2.1%	Online	203	+/- 6.93%	Online

*Estimated Margin of Error is the margin of error that would be associated with a sample of this size for the full of Health Care Professionals population in each market.

Local Market General Population Weighting

For the general population sample, South Africa was weighted to be representative of the national population based on census statistics for key demographics (including age, gender, neighborhood, income and region). The weighting was applied to ensure the sample is representative of individuals age 18+ in each country who have visited a healthcare practitioner within the past 3 months.

Total Country Weighting (Healthcare Professionals and General Population)

The 19-country total is an average calculation with each country's sample size weighted to have the same value to ensure each country has an equal weight in this total. The same was done for all regional totals.

How much do you agree or disagree that you have access to each of the following? Agree (Strongly Agree/Agree)	Patients	Healthcare Professionals
Information/ resources needed to live healthily	64%	50%
Medicine or treatment that helps prevent illness or disease (e.g. vaccinations)	63%	74%
Medical tests required for diagnosis	64%	63%
Treatments required for any current or future medical conditions	54%	57%
Medical resources needed for me to take care of sick family member(s) or myself in my home	51%	36%

Healthcare Professional Perspective

“I think the private sector is far better in many ways in access to what the patient has compared to patients in the public sector. It is a question of money.”

ONCOLOGIST, 1 YEARS' EXPERIENCE, PRIVATE



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