

FOR OUR MEMBERS

DISCOVERY HEALTH MEDICAL SCHEME |
ANNUAL GENERAL MEETING

CHARLOTTE MBEWU | PRINCIPAL OFFICER

23 JUNE 2022



We
exist
for our
members



NAVIGATING COVID-19



Supporting our members through the COVID-19 pandemic

CARING FOR OUR MEMBERS



Leveraging innovation to deliver the highest quality of care for our members

**ENSURING THE
BEST VALUE HEALTHCARE**



Driving affordability, quality of care and maximising value for members

**ENSURING SUSTAINABILITY
& MEMBERSHIP GROWTH**



Balancing growth whilst ensuring the long-term financial sustainability of the Scheme

**REGULATORY AND
GOVERNANCE EXCELLENCE**



Strong focus on governance excellence, risk management and regulatory compliance

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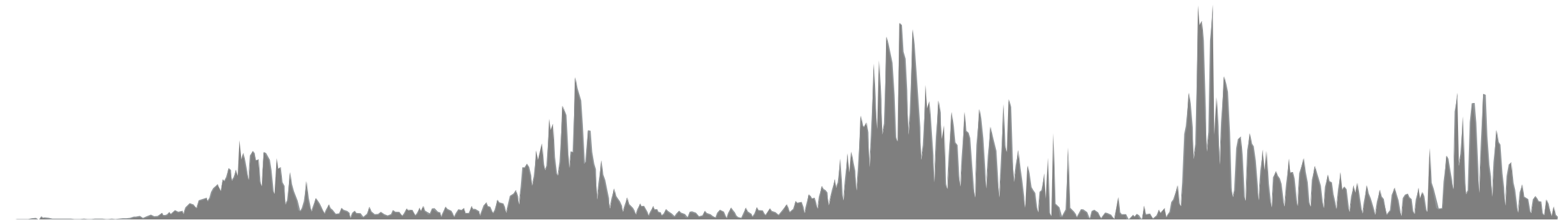
Balancing growth whilst ensuring the long-term financial sustainability of the Scheme
















REGULATORY AND GOVERNANCE EXCELLENCE



Strong focus on governance excellence, risk management and regulatory compliance

Navigation of a complex and dynamic South African healthcare ecosystem since the outbreak of COVID-19 in 2020



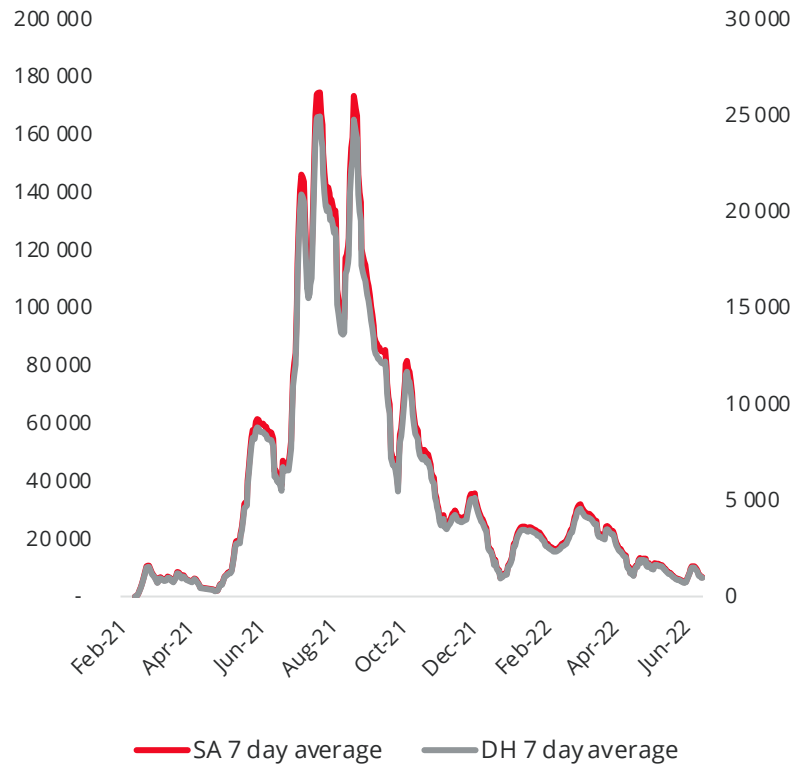
| 1 st wave insights | 2 nd wave insights | 3 rd wave insights | 4 th wave insights | 5 th wave insights |
|--|---|---|---|--|
| <p> Focus on protecting populations with lock downs</p> | <p> Variants emerge, driving new wave of infections (Beta)</p> | <p> Delta variant demonstrating importance of united global action</p> | <p> Highly contagious Omicron variant, raising possibility of transition to an endemic state</p> | <p> Moving closer towards a potential endemic state with consistent, localised presence of Covid-19</p> |
| <p> Non-COVID health-seeking behaviour changes</p> | <p> Evidence emerging on optimal clinical care, with improving outcomes</p> | <p> Vaccine reach and analytics become the focus</p> | <p> High transmissibility & lower severity leads to high population infection-acquired immunity and lower morbidity</p> | <p> Infection rates persist, however lower incidence of hospitalisation and death</p> |
| <p> Ramp-up in adoption of digital health as safer alternative</p> | <p> Surge in homecare as remote monitoring solutions mature</p> | <p> Proof of vaccination becomes important – as travel & events resume</p> | <p> Signs of return to “normality” as restrictions begin to be lifted globally</p> | <p> Vaccines remain effective, with booster shots providing ongoing protection</p> |

Positive vaccine take-up through DHMS at-risk population despite vaccine hesitancy

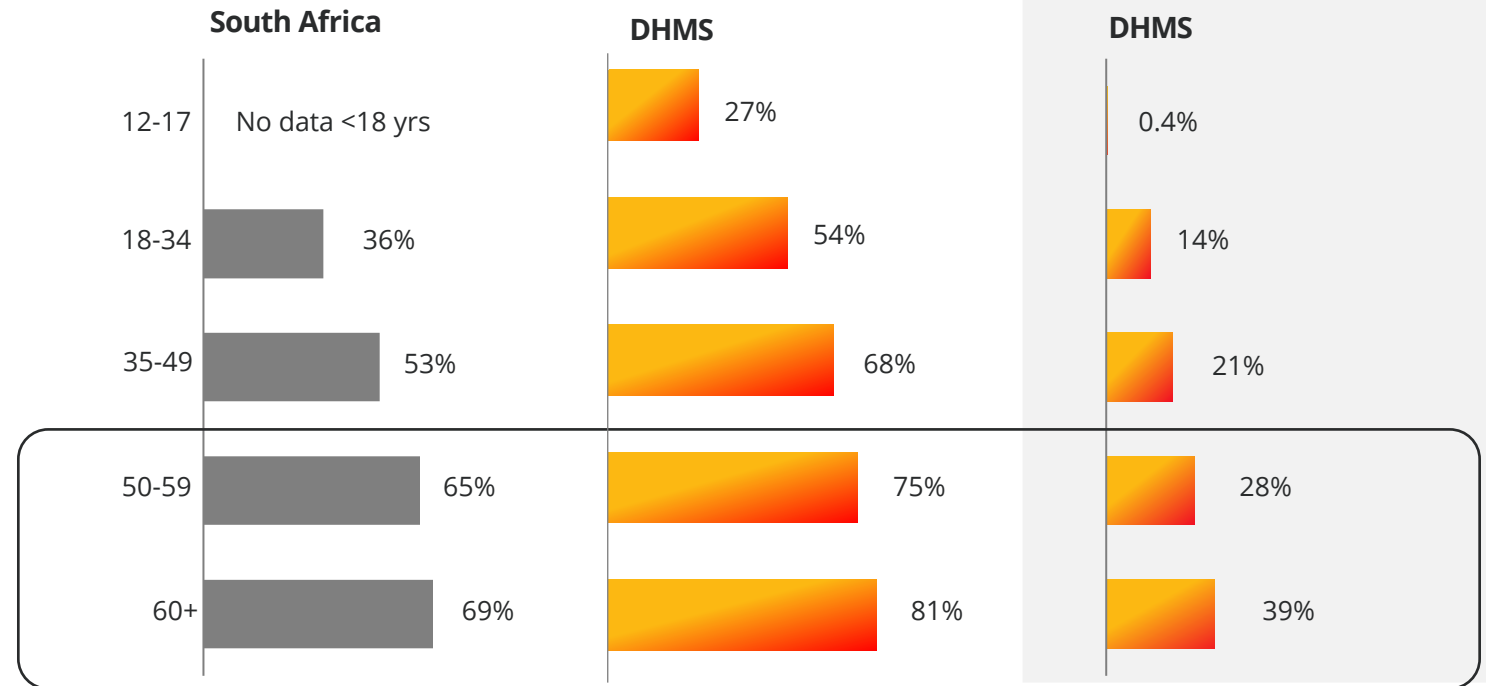
Insufficient uptake due to vaccine hesitancy

High uptake of vaccines amongst at-risk population

Daily vaccinations:
7-day moving average



Vaccination rate
by age group



| Total vaccinations | 36,602,354 | 2,768,221 | 1,486,432 |
|--------------------|------------|-----------|-----------|
|--------------------|------------|-----------|-----------|

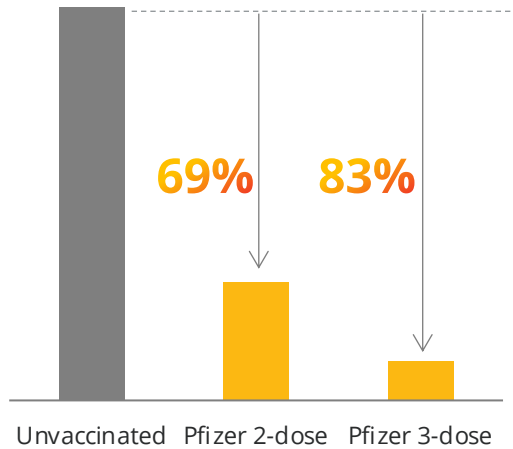
Vaccination remains crucial in managing the spread and severity of the virus, particularly with the threat of future variants

Vaccine effectiveness was retained through Omicron (Dec 2021 – Jan 2022)

Booster shots enhance protection

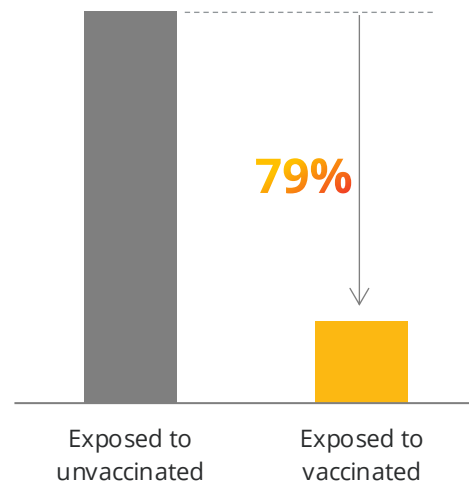
Lower hospitalisation risk

Relative risk of severe illness* (15 April-May 2022)- proxy BA4/BA5 period



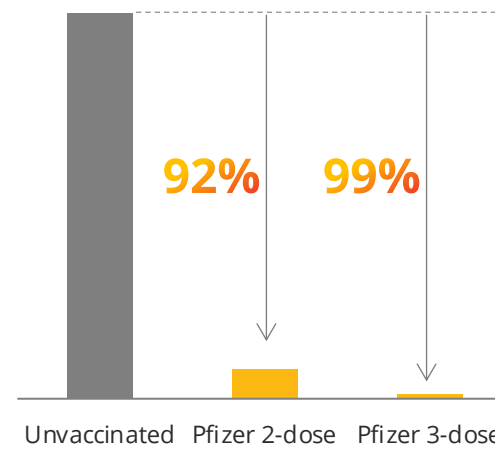
Lower transmission risk

Risk of infection



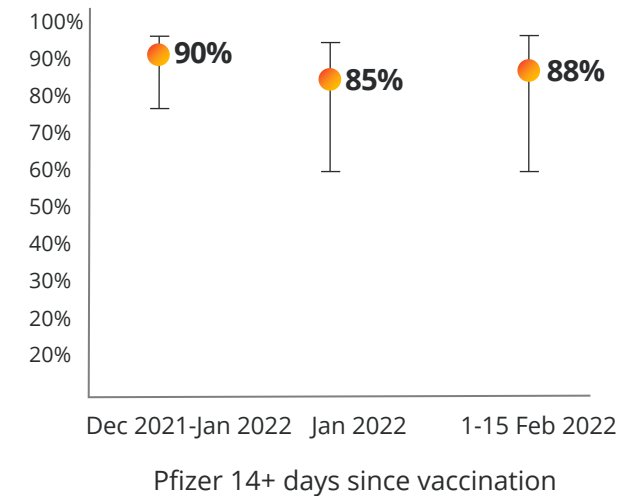
Lower mortality risk

Deaths per 100,000 between Oct-Nov



88-90%

Pfizer 3-dose protection against severe disease retained and increased



* 3-4 months post last vaccination dose

Source: Discovery Health Analytics as at 19 February 2022
To be submitted for peer review and publication. Authors have no conflicts of interest direct or in kind

Source: MedRxiv
<https://ncrc.jhsph.edu/>

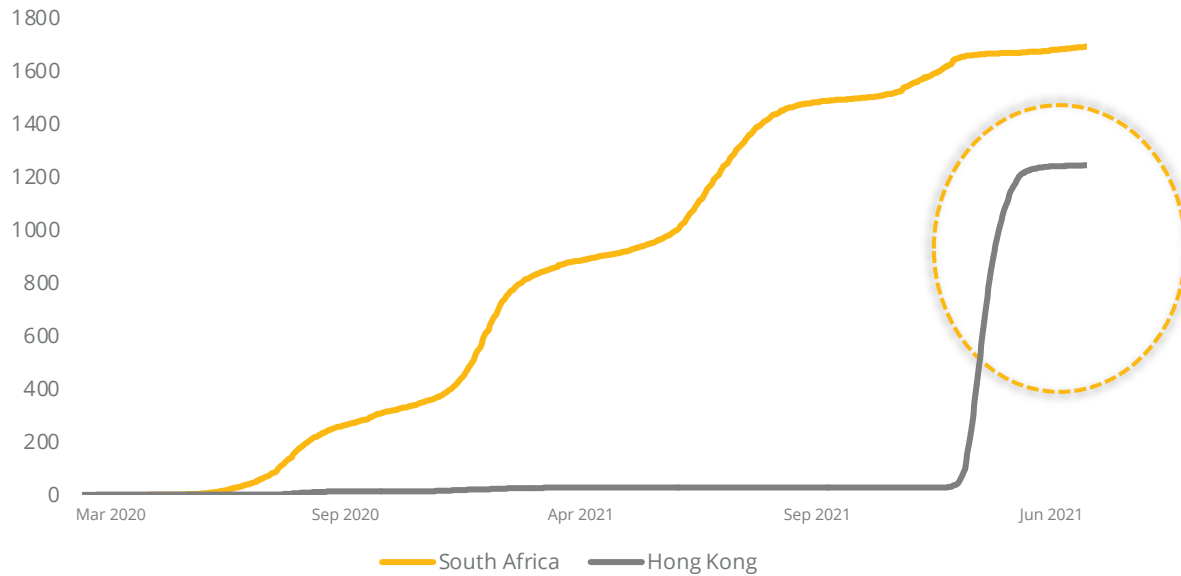
Source: Centers of Disease Control and Prevention
<https://www.cdc.gov/mmwr/volumes/71/wr/mm7104e2.htm>

Source: Discovery Health analysis

Hong Kong case study highlights need to remain vigilant and the continued importance of vaccination

Rapid increase in covid-19 mortality in Hong Kong has disproportionately affected the elderly & unvaccinated **Comparisons show the relative protection of SA's population, but highlights the risk of low total vaccination rates**

Reported deaths per 1 million population



Hong Kong's wave 5 Covid deaths:

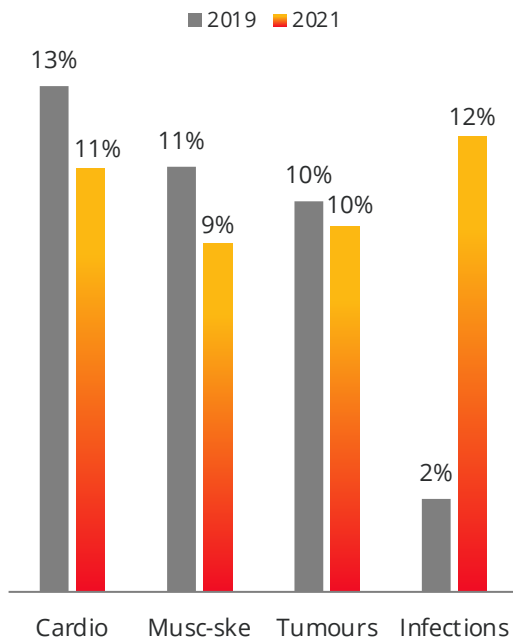
72% unvaccinated

88% over the age of 70

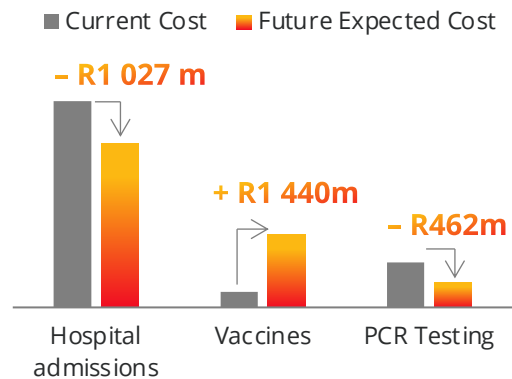
| Population resilience | % Population >60yrs | 19% | 8% | 11% |
|------------------------------------|--|---------------------------|------------------------------------|------------------------|
| Vaccine-mediated immunity | % Total Population fully vaccinated | 72% | 50% | 51% |
| | % Population >60yrs fully vaccinated | 60% | 71% | 74% |
| | Main Vaccine type | Sinovac, Sinopharm | J&J, Pfizer | J&J, Pfizer |
| Infection-mediated immunity | % Population with prior infection | 10% | >80% | |
| | Variant exposure | Omicron | D614G, Beta, Delta, Omicron | |

COVID-19 has increased overall disease burden **COVID-19 will continue to feature prominently** **Population health has worsened and must be managed** **Reduction in prevention and screening must be addressed**

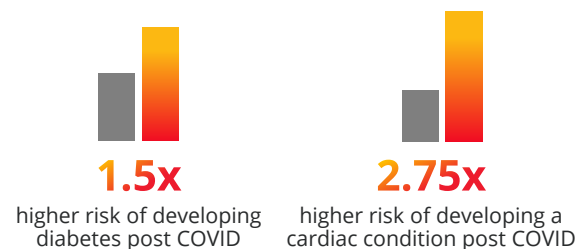
Percentage of claims attributed to selected key healthcare drivers



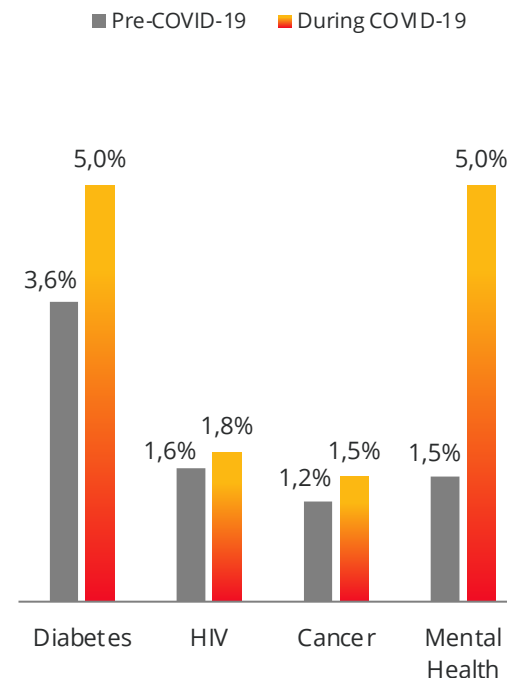
COVID-19 expected to add R7bn to overall expenditure in 2022, in line with 2021



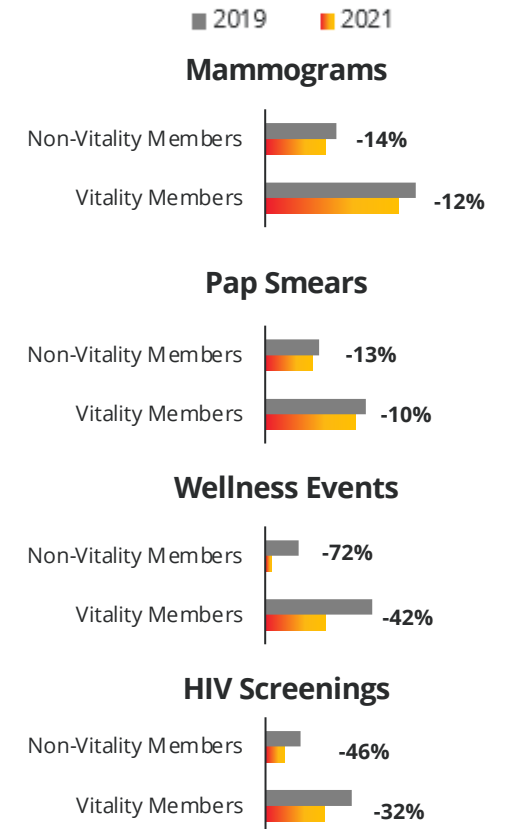
COVID-19 showing initial signs of impacting overall morbidity



Percentage of lives with key health issues



Less so for Vitality Members



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REGULATORY AND GOVERNANCE EXCELLENCE



Strong focus on governance excellence, risk management and regulatory compliance

Navigating COVID-19 with comprehensive benefits and support for members

Positioning the Scheme beyond COVID-19

Comprehensive COVID-19 benefits



Caring for members through risk assessment, screening, testing & treatment

Caring for our most vulnerable members



Full access to healthcare services in the safety of your home

Managing the second order effects of COVID-19



Enhancing access to healthcare care at home through virtual care pathways

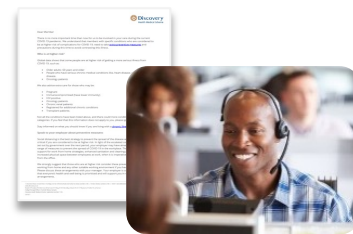
Improving patient outcomes for DHMS members



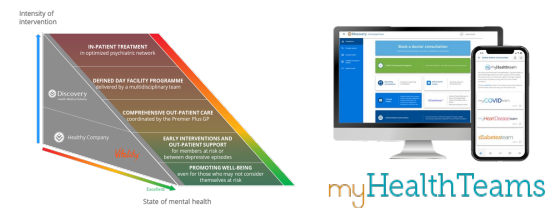
Same day discharge Joint Arthroplasty Pilot



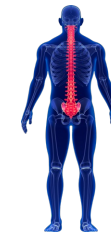
Employer support through information, financial relief and member vaccinations



Targeted Information and proactive communication with high-risk members



New virtual care pathways assist in addressing the second order effects of COVID-19



Spinal surgery network and conservative care programme



Rectal surgery network and electronic record programme

Comprehensive benefits to protect and support our members and broader South African community during Covid-19



Caring for Members



Supporting Employers

Comprehensive benefits

Risk assessment and screening



Resilience index



Risk assessment



Call centre support

Testing and consultation



2-4 PCR & Antigen Tests



Face-to-face & virtual consultations

In & out of hospital treatment



Pathology & radiology



Medicine



In-hospital care

Additional interventions

Identifying & supporting high risk members



Pulse oximeter for early detection

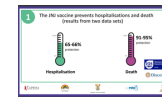


On-going monitoring

Education & support



Covid-19 information hub



Covid-19 thought leadership

Supporting members with financial relief

R2.2bn

worth of contributions saved through unique DHMS increase deferral

15 000

Members with up to 3 months contribution relief via MSA

Employer assistance initiatives

Access to company specific information



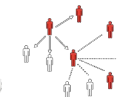
Employer zone & 24/7 hotline



Additional employer support



Covid-19 business support



Employer Vaccination programme

Financial relief measures

R207m

Deferred contributions for SMMEs

Extensive COVID-19 related claims covered in 2021



1 427 901

members who have received a COVID-19 vaccination



851 173

members tested for COVID-19



36 340

members admitted to hospital for COVID-19



8 702

members who needed extensive in-hospital intervention



11 413


members needing care in excess of R100 000 as a result of COVID-19 symptoms

In addition non-COVID-19 healthcare returning to between COVID-19 waves in 2021



745 207

members relying on the Scheme for access to care for a chronic condition



34 691

babies born during the past 12 months



41 426

members actively treated for cancer



363 820

Members admitted to hospital



55 944

Members that had a non-COVID-19 related healthcare event that cost more than R100 000

Caring for members with complex conditions

Extensive cover for our most vulnerable members strengthened with improved access and support during COVID-19

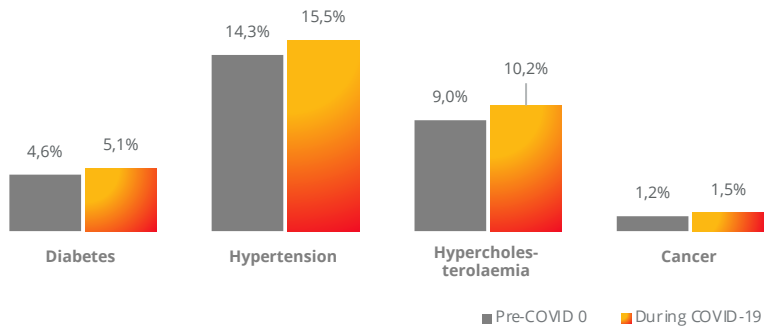
>740 000

members registered with a chronic condition



1 in 2 members have more than one chronic condition

Increases in chronic conditions



Benefits

Full access to healthcare services at-home



Virtual consultations



GP initiated virtual house calls



Chronic medication delivered to your door

Benefits for COVID-19 positive patients



Pulse oximeters for high-risk members



Patient transfers during peak COVID-19 period

Support

Seamless and safe vaccination sites



Safe, state of the art vaccination sites



Support and guidance for at-risk population

Information and communication



COVID-19 information hub



Proactive communication with high-risk employees

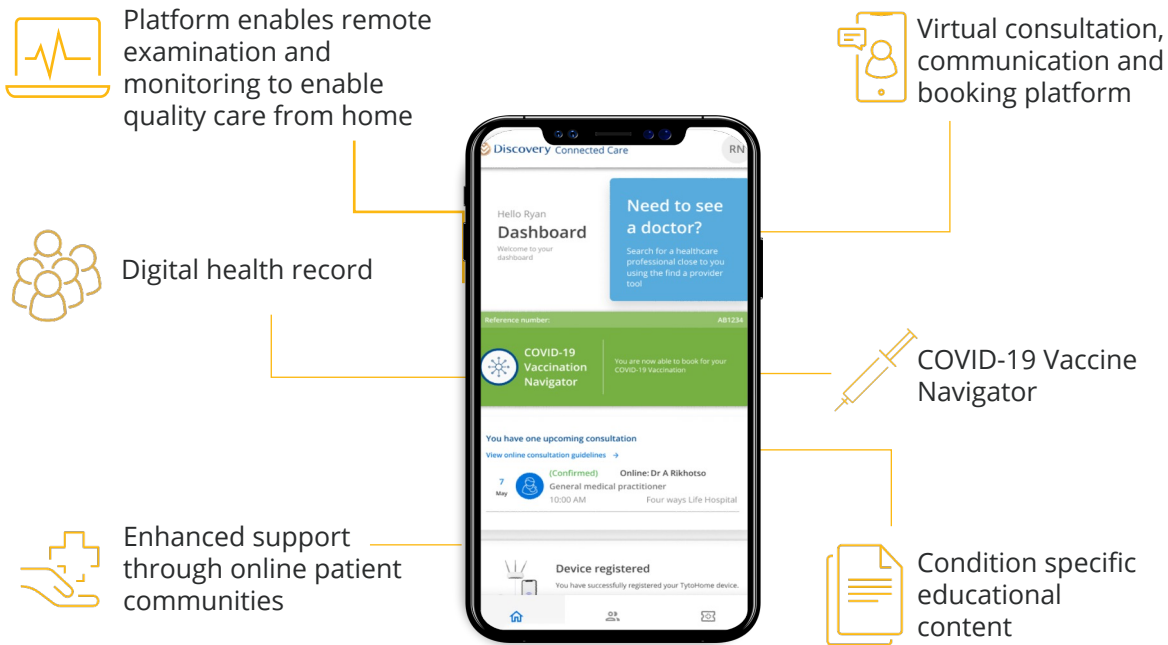


Targeted member communication



Online support communities

Seamless connected care platform to enable virtual care pathways

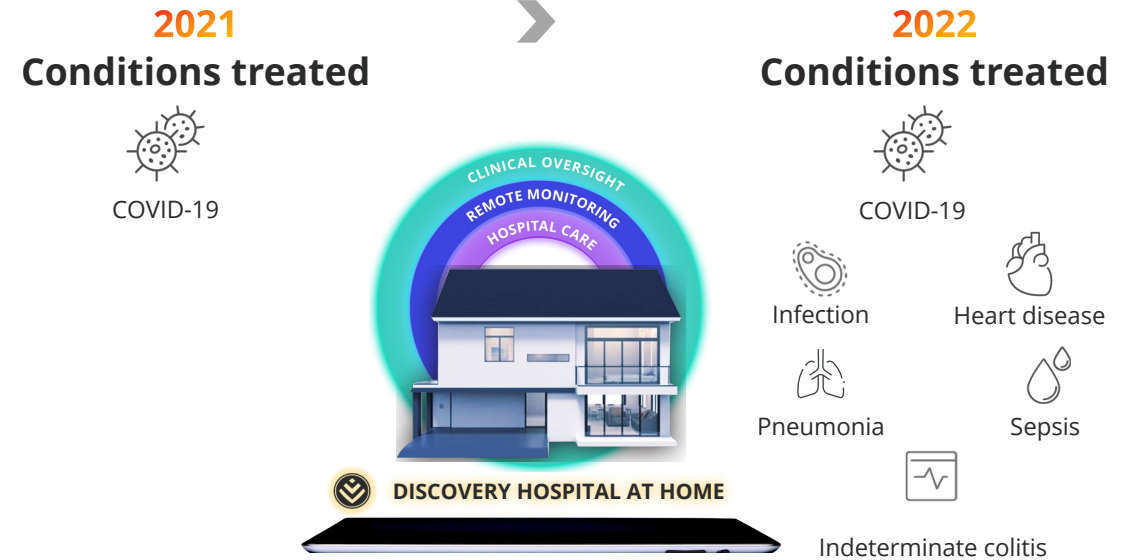


29 M
Connected Care logins

>408,279
Vaccination bookings

>10,000
Virtual consultations

Extended hospital-acuity care provided from the comfort of a member's home



Exceptional outcomes and member experience:

Access to care

Exceptional COVID-19 health outcomes
Only 1 care escalation and readmission for 2022

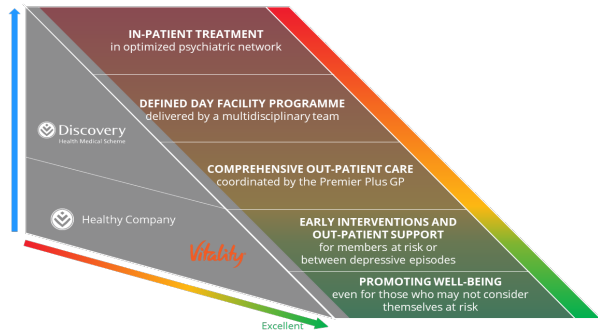
Strong member feedback

"Love the program and the interaction with the nurses."
"Experience is much better than being in the hospital."

Managing the second order effects of COVID-19 – member support for consequent healthcare

Mental health benefits enhanced across the care continuum in 2020

Support through digital patient communities



GP consultations can be face-to-face or virtual



5,690

Active enrollments on the Mental Health Programme



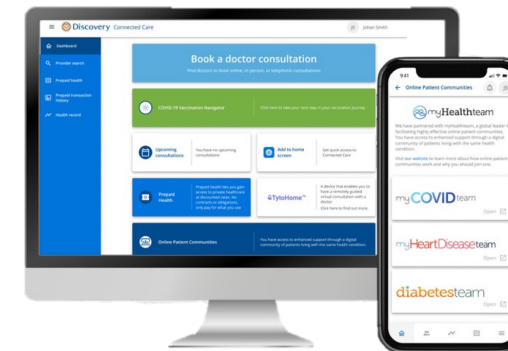
17 X

Increase in enrollments from 2020 - 2022



>600

peaking number of virtual consultations per month



myHealthTeams

>3,221

DHMS users since launch in March 2022

Early signs of good engagement since launch in March 2022



1,656
users



642
users



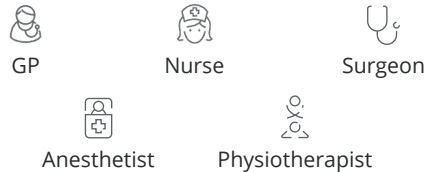
923
users

Building centres of excellence to enhance medical outcomes and patient care for DHMS members

Higher recovery rates and member experience through the arthroplasty same day discharge programme

Channelling members to high-quality centres of excellence for targeted surgical procedures

Multi-disciplinary team



Clear treatment plan
Effective collaboration
Efficient surgery and supportive recovery

72%

Of all Surge* DHMS knee & hip replacements are discharged on the same day



Spinal Surgery Programme & quality network



Launched in February 2021



65

Hospitals



>7 000

admissions

Rectal Cancer Surgery Network



Introduction of rectal surgery network



Surgeon



Hospital

Development of rectal surgery electronic record

High recovery rate & positive member experience

96%

Complication-free recovery

72%

met mobility expectations within 6 weeks

3 weeks

Average return to work

9 in 10

highly recommend & re-enter programme

*Surge is a registered group of orthopaedic specialists with a focus on hips and knees

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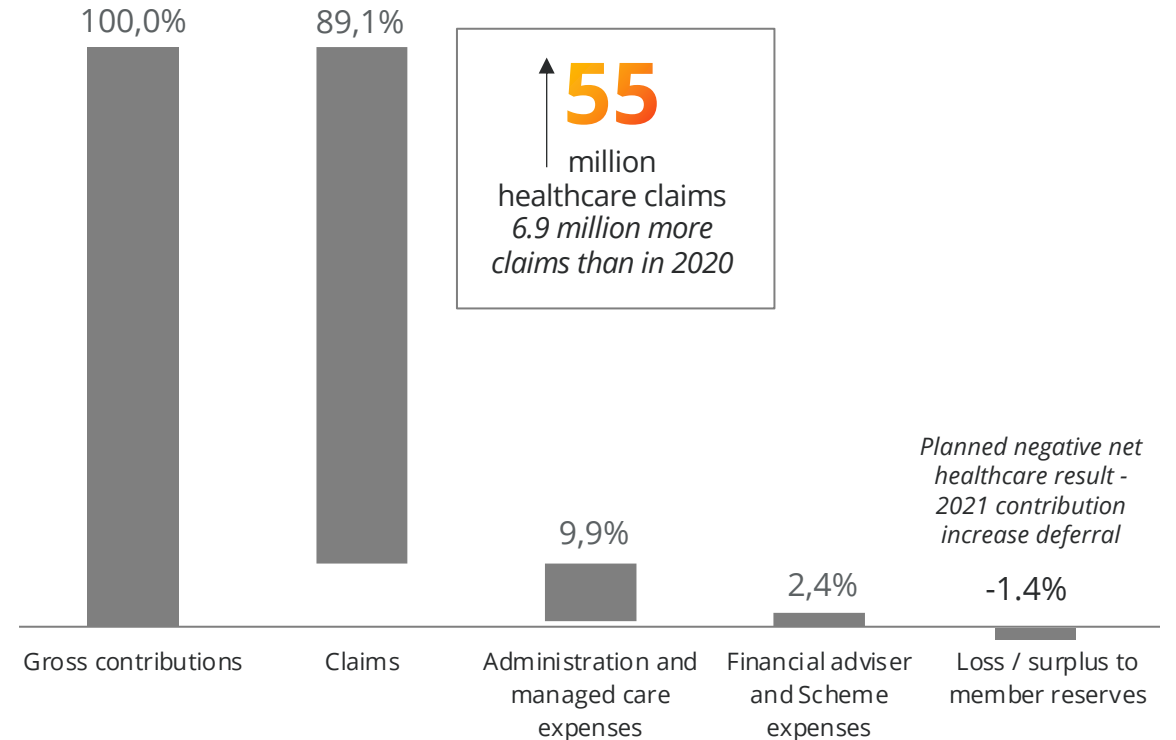
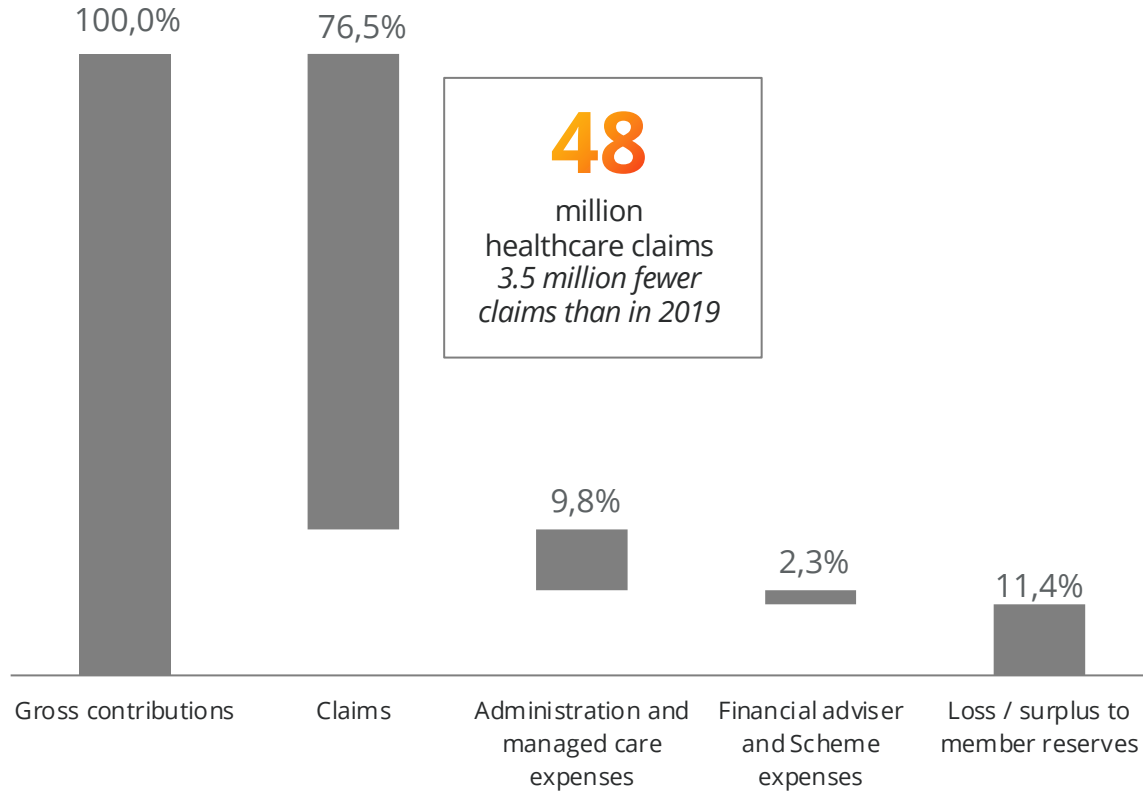


Strong focus on governance excellence, risk management and regulatory compliance

Fluctuations in healthcare utilisation leading to an increase in claims expenditure in 2021

2020 Expense Breakdown

2021 Expense Breakdown



Unique pricing strategy extends competitive position by balancing short- and long-term member needs

Long-term sustainability

Short-term affordability



Contributions increase in line with systemic healthcare inflation

Improved solvency position as result of COVID-19 utilisation volatility is used to defer the contribution increase



Protects members from future price "shocks"

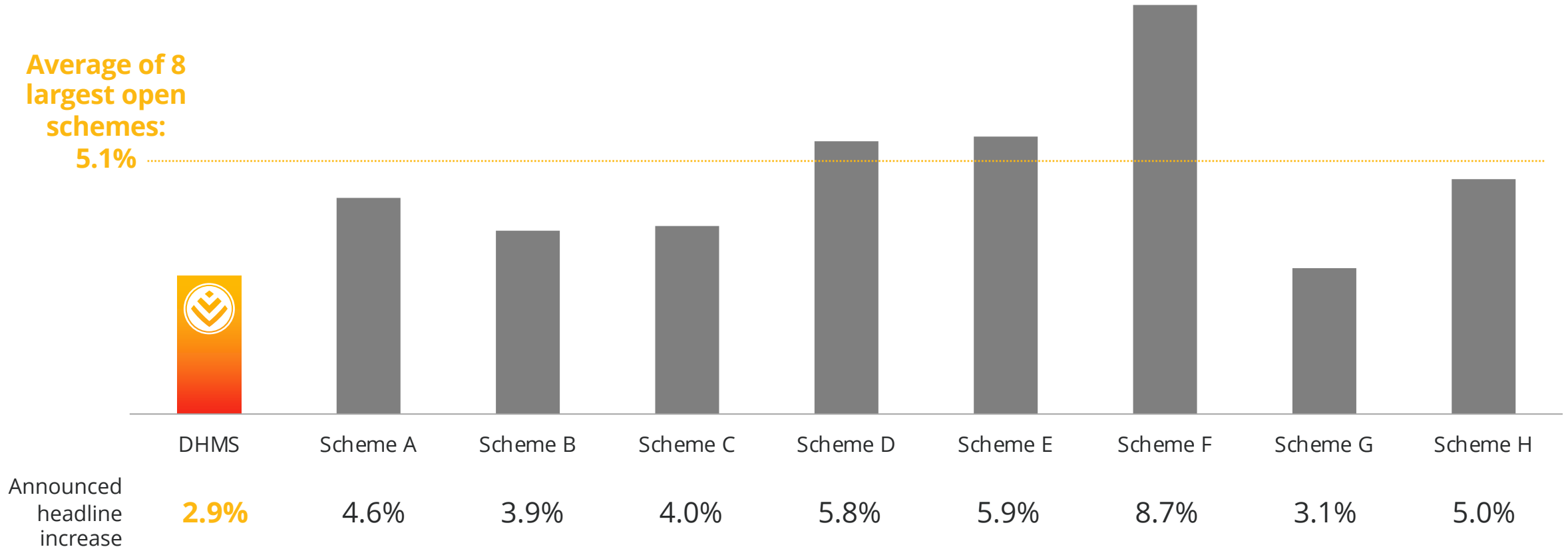


Supports short-term affordability

5.9% increase deferred to 1 July 2021

Members experienced an effective increase* average risk contribution increase of 2.9% for 2021

DHMS estimated weighted average risk contribution increase vs competitors (2021)



* Effective increase refers to the total contributions paid in 2020 vs the total contributions paid for a member on the same plan in 2021. DHMS contributions increased by 5.9% from July 2021, with an effective/real increase felt by members of only 2.95%

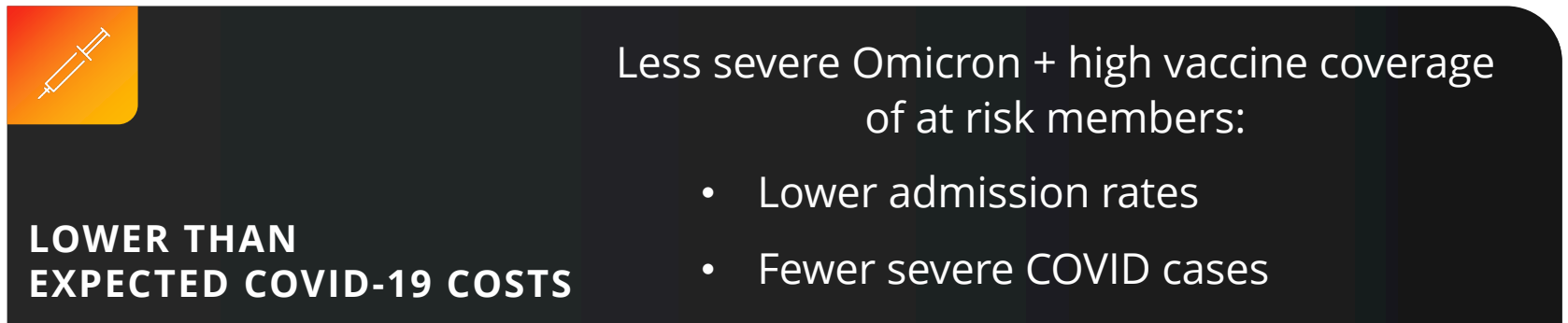
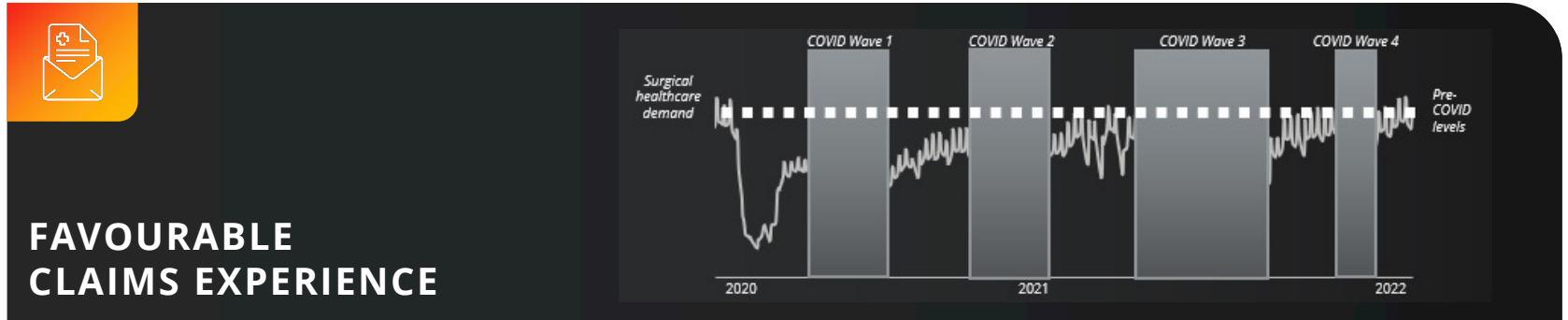
A better than expected claims experience and investment return in 2021 has also allowed for a further deferral in 2022

Contribution increase deferred to 1 October 2022

providing
financial relief of

R5 billion

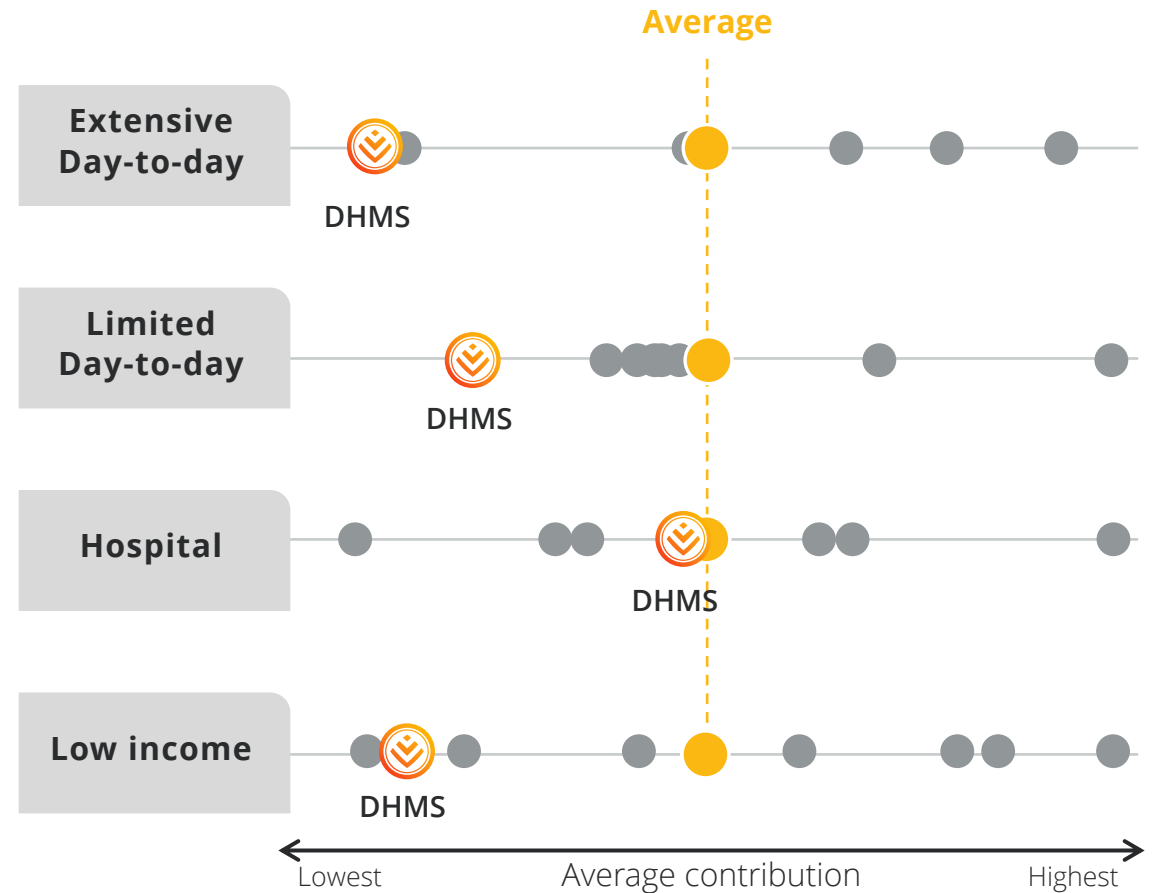
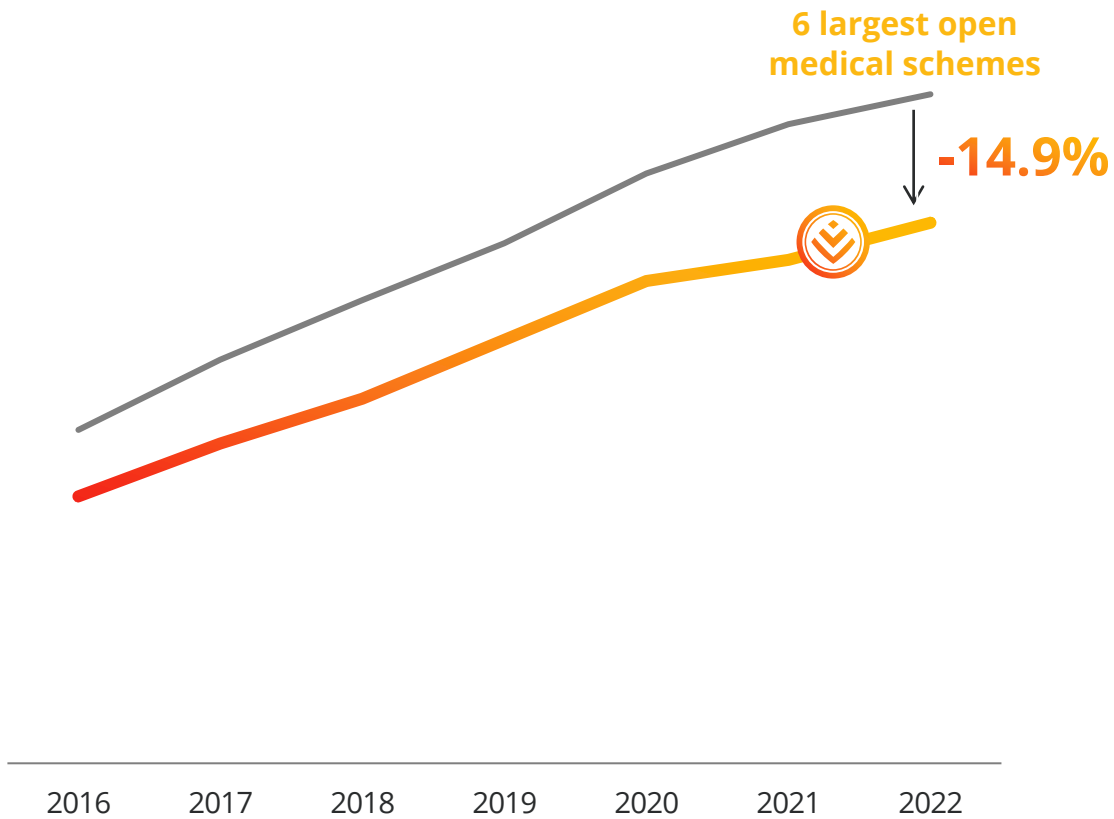
for members during 2022



Contributions are competitively priced across all plan types, usually with superior benefits

DHMS relative contribution differential

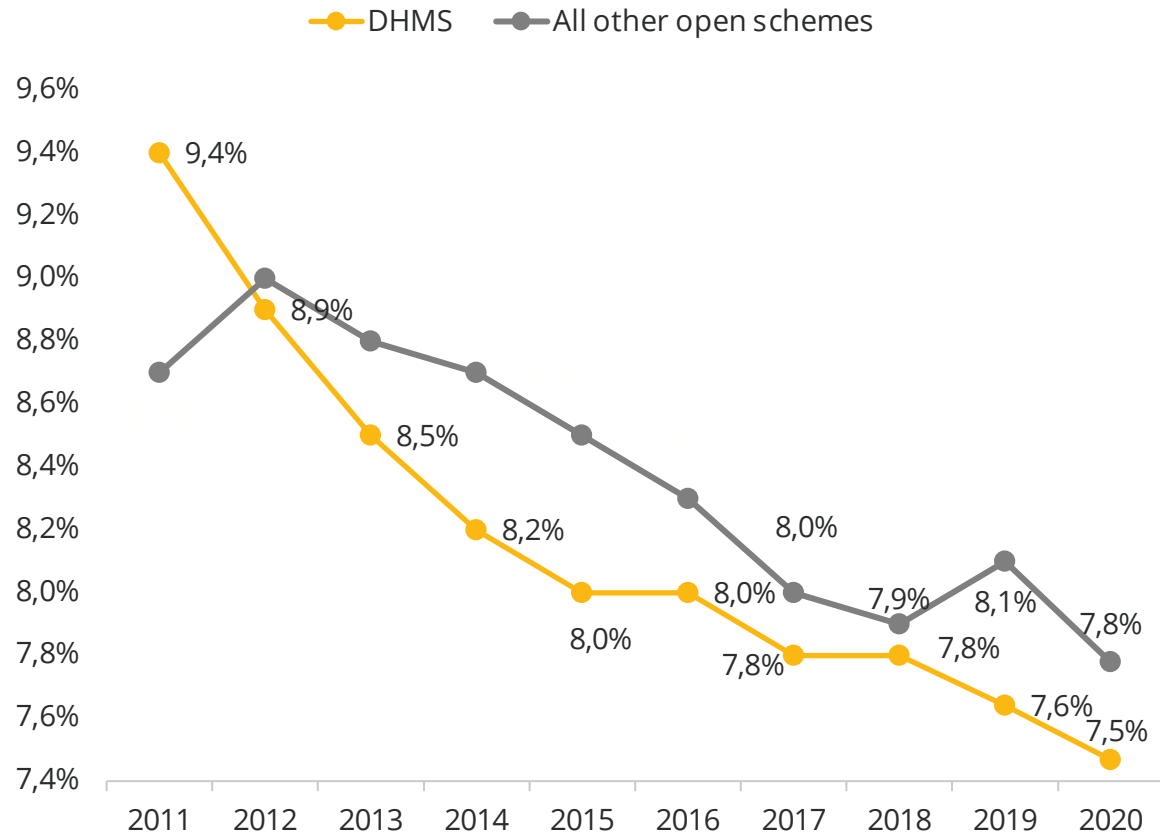
Comparative affordability by plan type



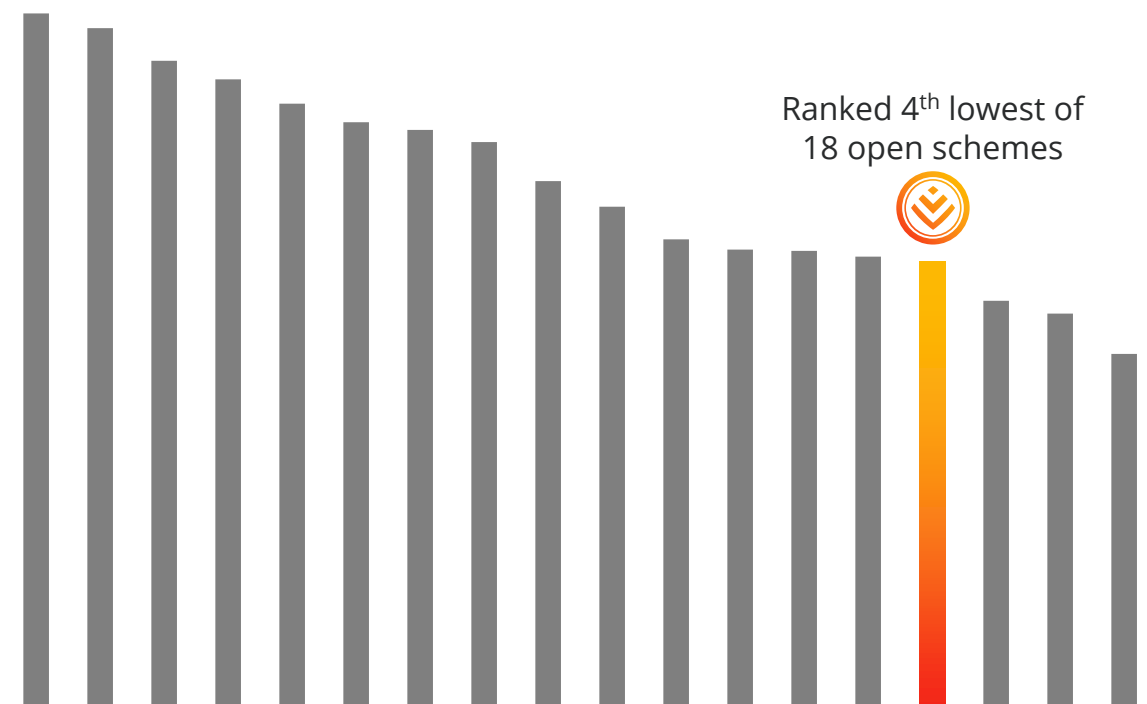
Sources: Published contributions for 2016-2022
 P + A + C = Principal member + Adult dependant + Child dependant
 Sizwe Medical Scheme excluded from analysis

Members benefit through continuously reducing administration expenditure that is among the lowest in the industry

Administration expenditure as % of gross contribution income (2011 - 2020)



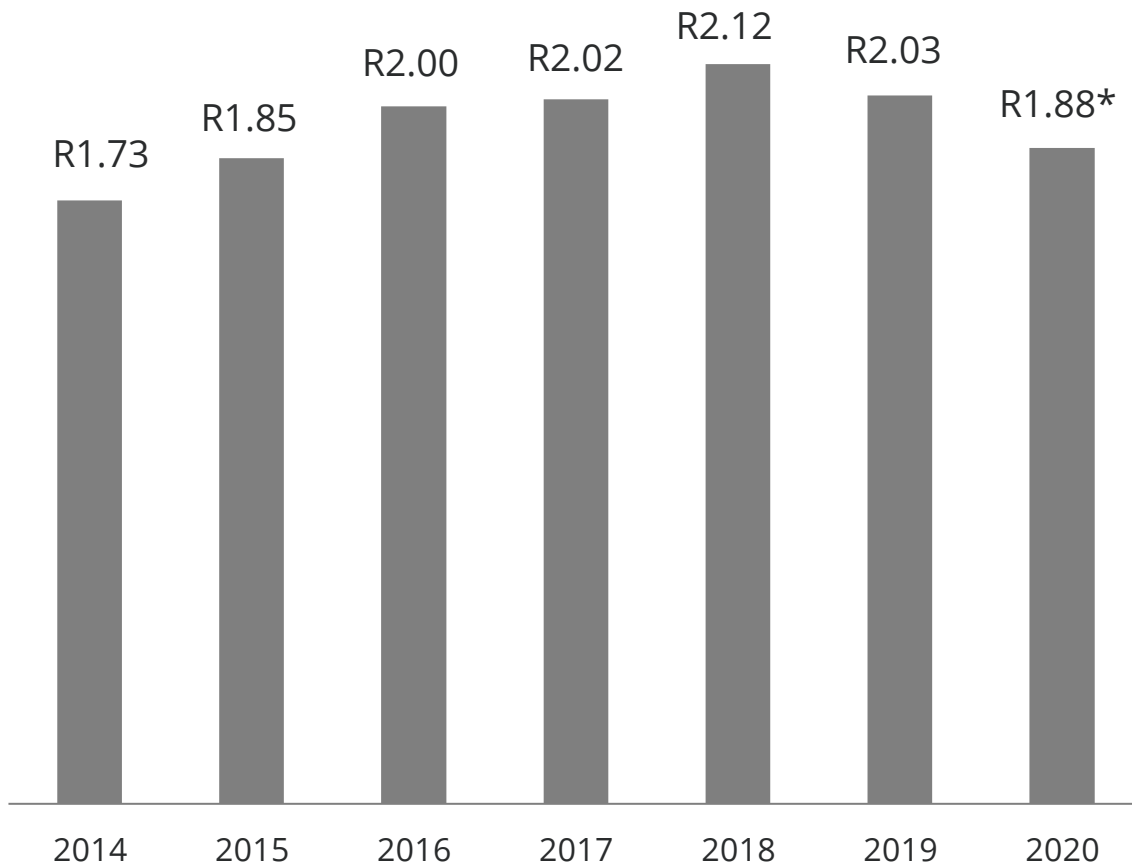
Administration expenditure as % of gross contribution income (2020)



Notes: The latest CMS report is for 2020
 The admin expenditure as % of GCI figure is a weighted average for all other open schemes
 Source: CMS Annual Report 2020-21

Our members receive outstanding value from Discovery Health

Value generated for DHMS members



For every R1 spent
on managed care and
administration fees,
members of DHMS derived
R1.88 in value

Deloitte.
Reviewed by Deloitte

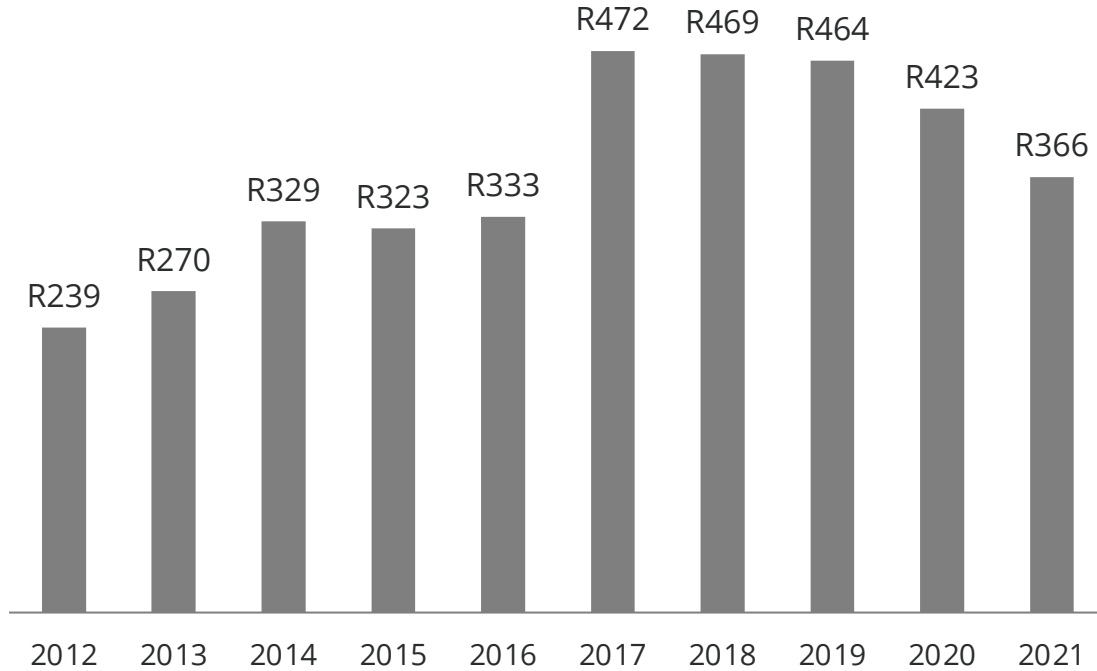
**Decrease is result of decrease in utilisation resulting from COVID-19, while the administration and managed care fees have remained at similar levels in real terms*

Discovery Health's internal fraud measures have saved the Scheme ~ R1bn per annum

Significant fraud savings and recoveries

Cumulative halo effect of R11.8 billion (2012-2021)

Fraud savings and recoveries (Rm)



Members benefit through a 1.0% lower contribution increase every year

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2021 DHMS financial highlights: the Scheme is financially secure

| Measure | 2020 (R million) | 2021 (R million) | % change pampm ¹ |
|--|---------------------|---------------------|-----------------------------|
| Gross contribution income | 74,538 | 75,816 | 1% |
| Less savings contribution income | (13,294) | (13,357) | 0% |
| Net contribution income | 61,243 | 62,459 | 1% |
| Relevant healthcare expenditure ² | (46,657) | (56,271) | 19% |
| Gross healthcare result (contributions – claims) | 14,586 | 6,188 | - 58% |
| Broker service fees | (1,490) | (1,439) | - 4% |
| Expenses for administration | (5,389) | (5,555) | 2% |
| Other operating expenses | (256) | (360) | 25% |
| Net healthcare result (contributions – claims – expenses) | 7,450 | (1,166) | - 115% |
| Net investment and other income ³ | 1,555 | 3,210 | 104% |
| Net surplus for the year (including investment income) | 9,006 | 2,044 | - 78% |

¹Per average member per month

²Includes accredited managed healthcare fees

³Net investment income and other income (net gains on financial assets at fair value through profit or loss, and sundry income) less other expenses (expenses for asset management services rendered and interest paid)

How do we ensure we are here for our members, tomorrow and into the future?

We measure **key metrics** for a sustainable medical scheme:

Growth and sustainability



Membership size



Membership growth



Plan movements

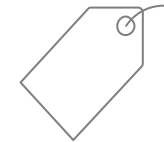


Contribution increases

Financial strength



Absolute reserves



Pricing sufficiency



Prudent investments

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Growth and sustainability



Membership size

Greater risk pooling means **more predictable claims experience** and accuracy in pricing, leading to stable performance.



Membership growth

Continuous growth of young and healthy **beneficiaries improves risk pooling** and reflects attractiveness and competitiveness of the Scheme through cross-subsidisation principles.



Plan movements

Indicates **satisfaction**, stability in benefit design and appropriate pricing.



Contribution increases

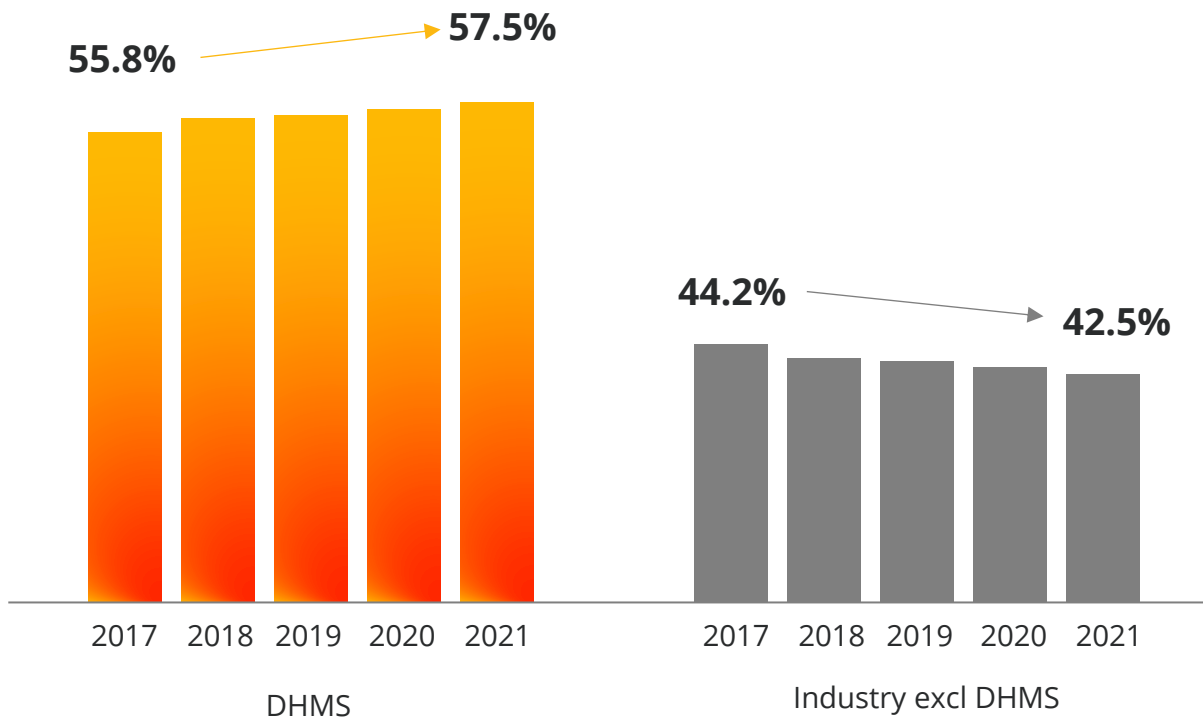
Reflects **effective risk management** and **value proposition** to members.

Growth in DHMS membership in 2021 persists in 2022

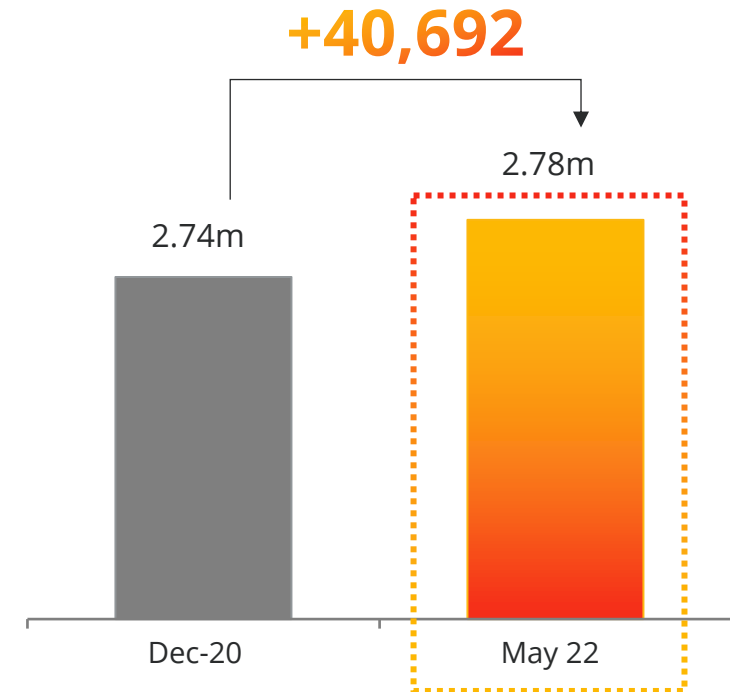
DHMS' increasing membership resulting in market share increase to 57.5%

Positive DHMS growth continues into 2022

Open scheme market share (2017-2021)



DHMS beneficiaries (2020-2022)

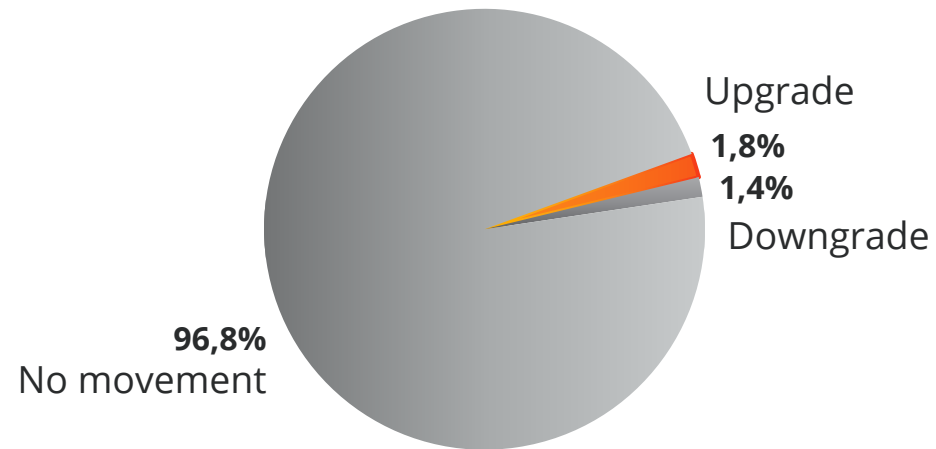


Prioritisation of health cover leading to plan stability and shifts in upgrade trends

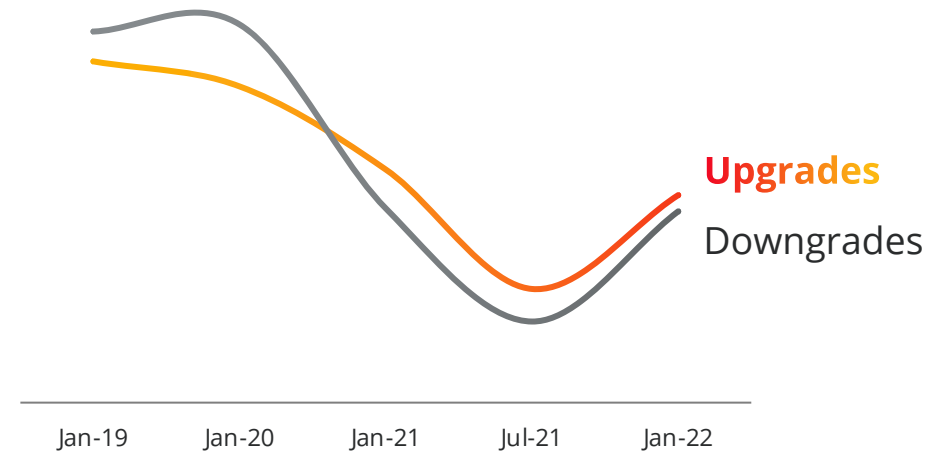
Large proportion of members satisfied with their current plan choice

Prioritisation of health cover leading to a shift in upgrade trends

2022 plan movements



Plan movements (2019-2022)

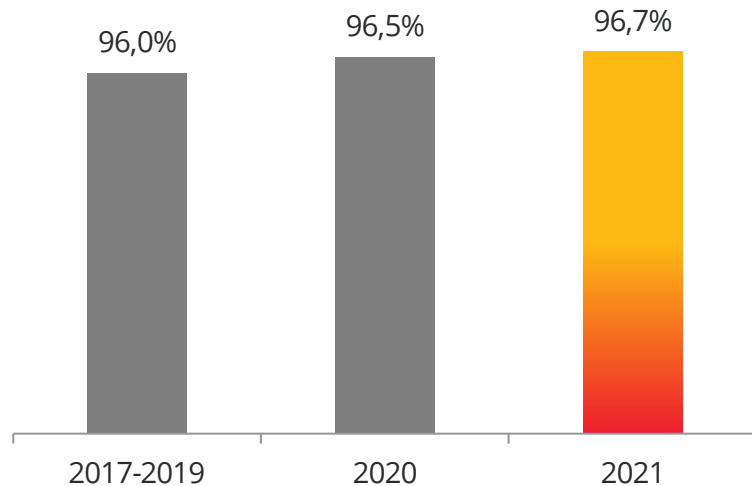


DHMS maintains cover for members, and continues to provide more comprehensive in-hospital cover than the market

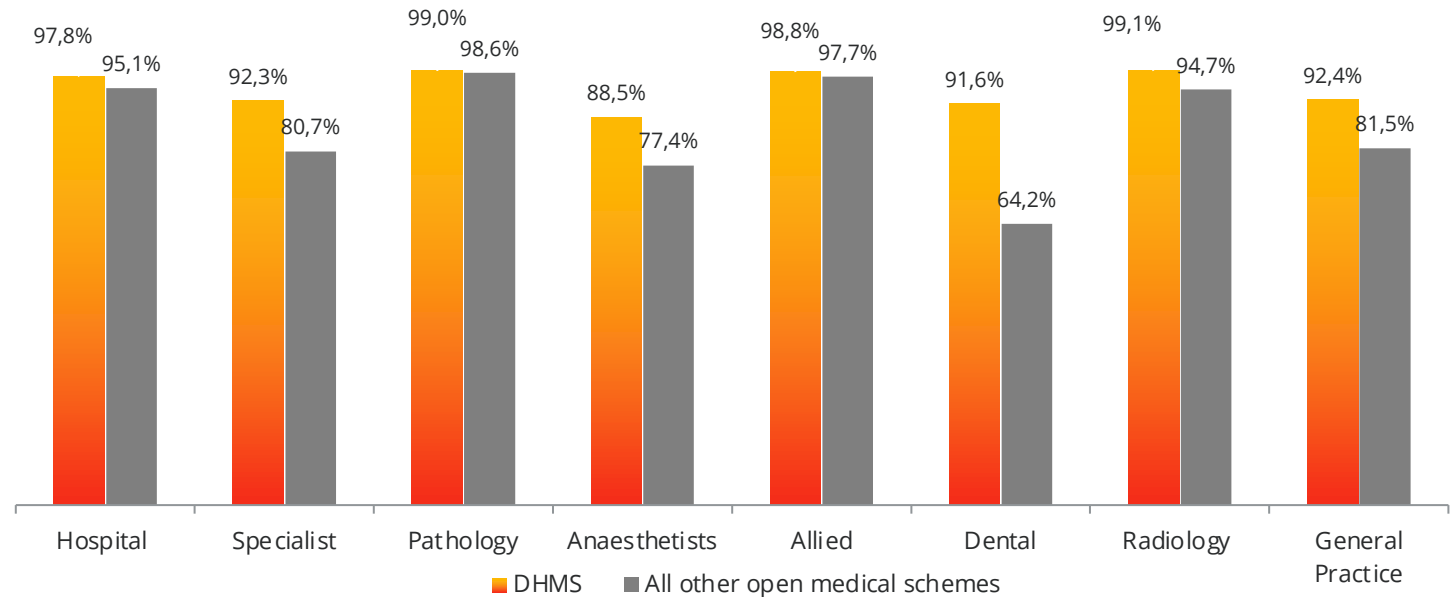
In-hospital claims payout ratio increase

DHMS provides greater value through higher cover ratios across all providers

DHMS in-hospital claims payout ratio



In-hospital claims payout ratio 2020



Higher in-hospital ratios reduce member co-payments across various providers when compared to other schemes in the industry

How do we ensure we are here for our members, tomorrow and into the future?

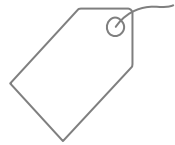
We measure **key metrics** for a sustainable medical scheme:

Financial strength



Absolute reserves

Demonstrates ability to **meet large, unexpected claims variation.**



Pricing sufficiency

Surplus year-on-year reflects **contribution levels** that are in line with expected membership and claims.



Prudent investments

Ensuring that **investment returns** are maximised within an acceptable and conservative level of risk

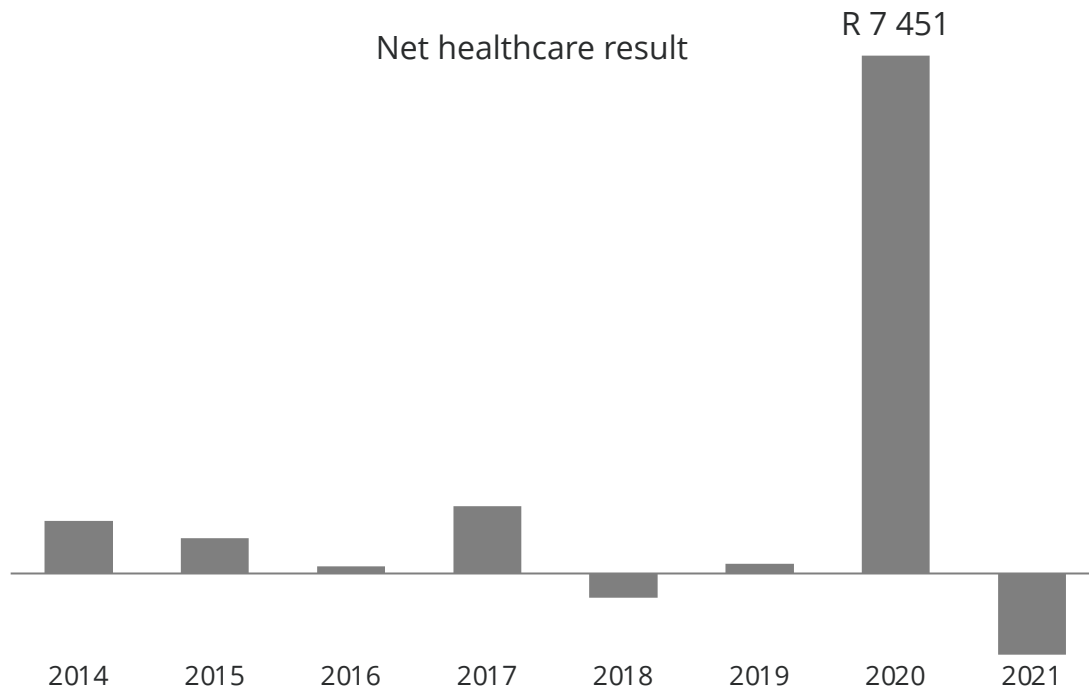
DHMS is well-placed to manage healthcare utilisation uncertainty in 2021 and beyond

2021 DHMS performance

Strong security and surplus to manage utilisation volatility in 2021

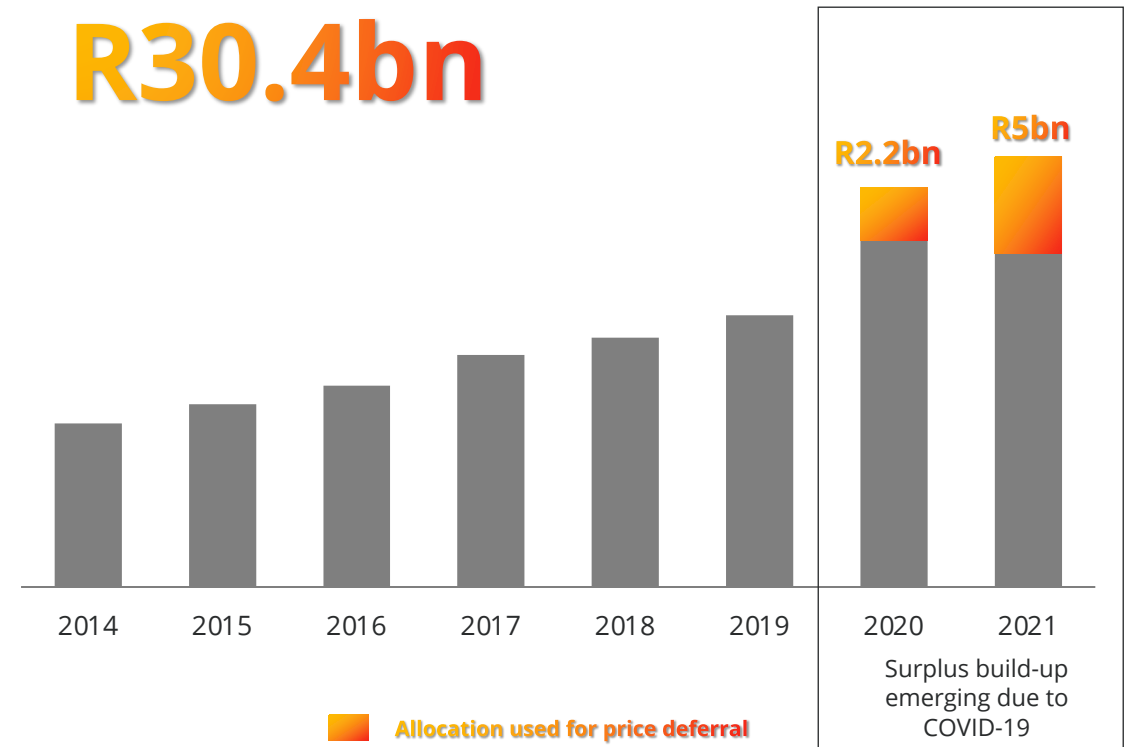
(R1.17bn) DHMS net healthcare result 2021

Net healthcare result



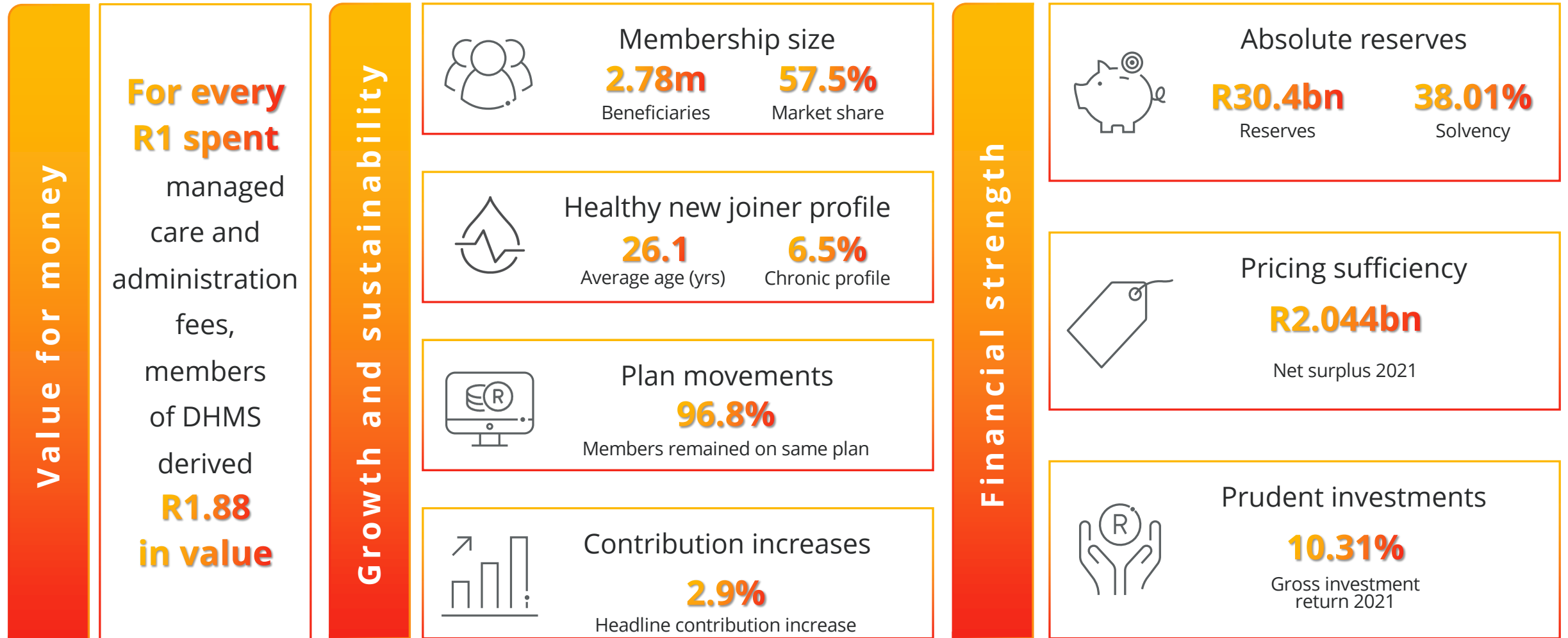
AAA
R30.4bn

38.01% Solvency ratio



How do we ensure we are here for our members, tomorrow and into the future?

We measure key metrics for a sustainable medical scheme:



We
exist
for our
members



NAVIGATING COVID-19



Supporting our members through the COVID-19 pandemic

CARING FOR OUR MEMBERS



Leveraging innovation to deliver the highest quality of care for our members

**ENSURING THE
BEST VALUE HEALTHCARE**



Driving affordability, quality of care and maximising value for members

**ENSURING SUSTAINABILITY
& MEMBERSHIP GROWTH**



Balancing growth whilst ensuring the long-term financial sustainability of the Scheme

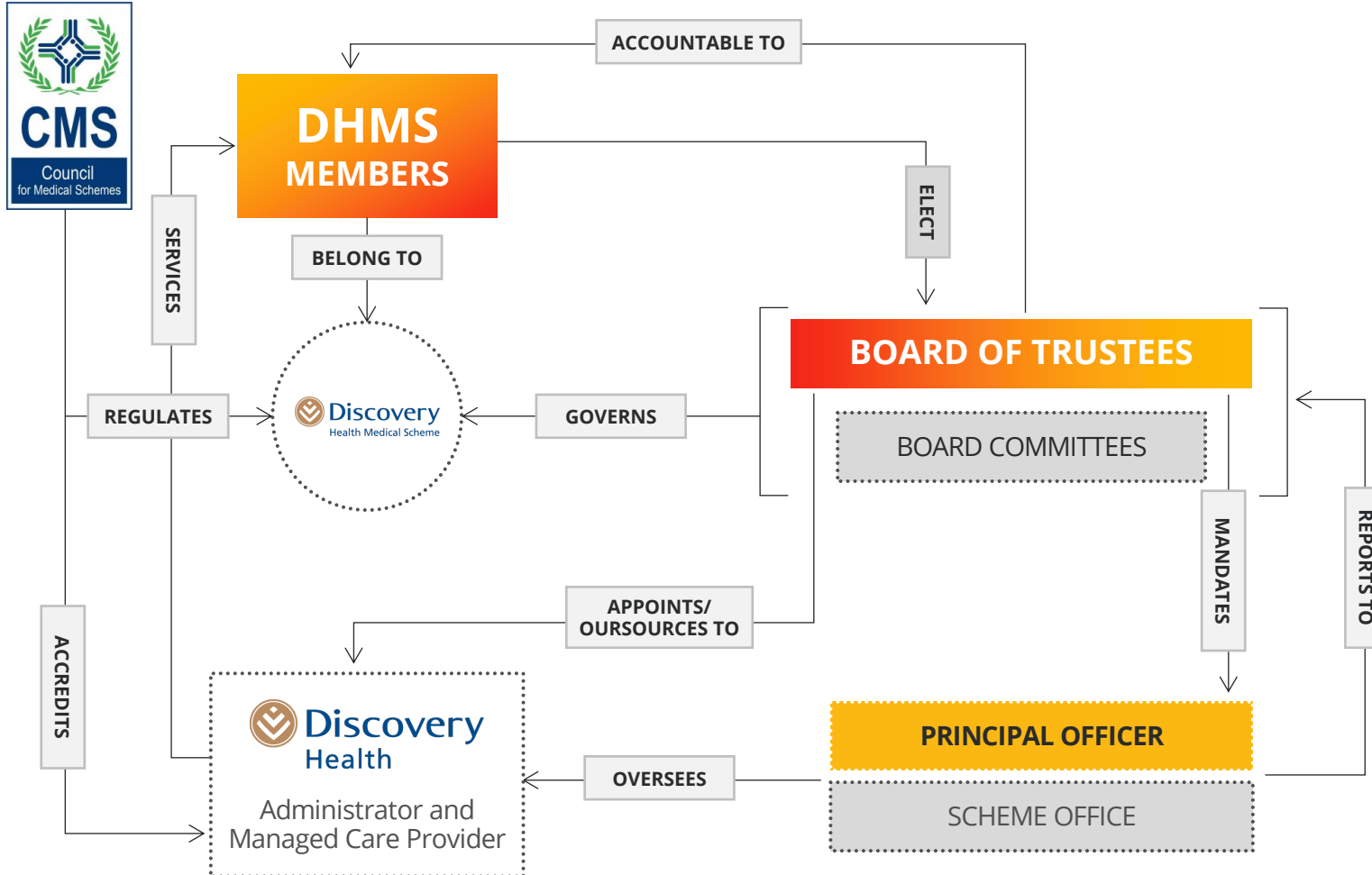
**REGULATORY AND
GOVERNANCE EXCELLENCE**



Strong focus on governance excellence, risk management and regulatory compliance

Strong, independent governance structures with majority member-elected Trustees

Our **governance** structures



To promote desired outcomes in accordance with King IV

AN ETHICAL CULTURE

GOOD PERFORMANCE

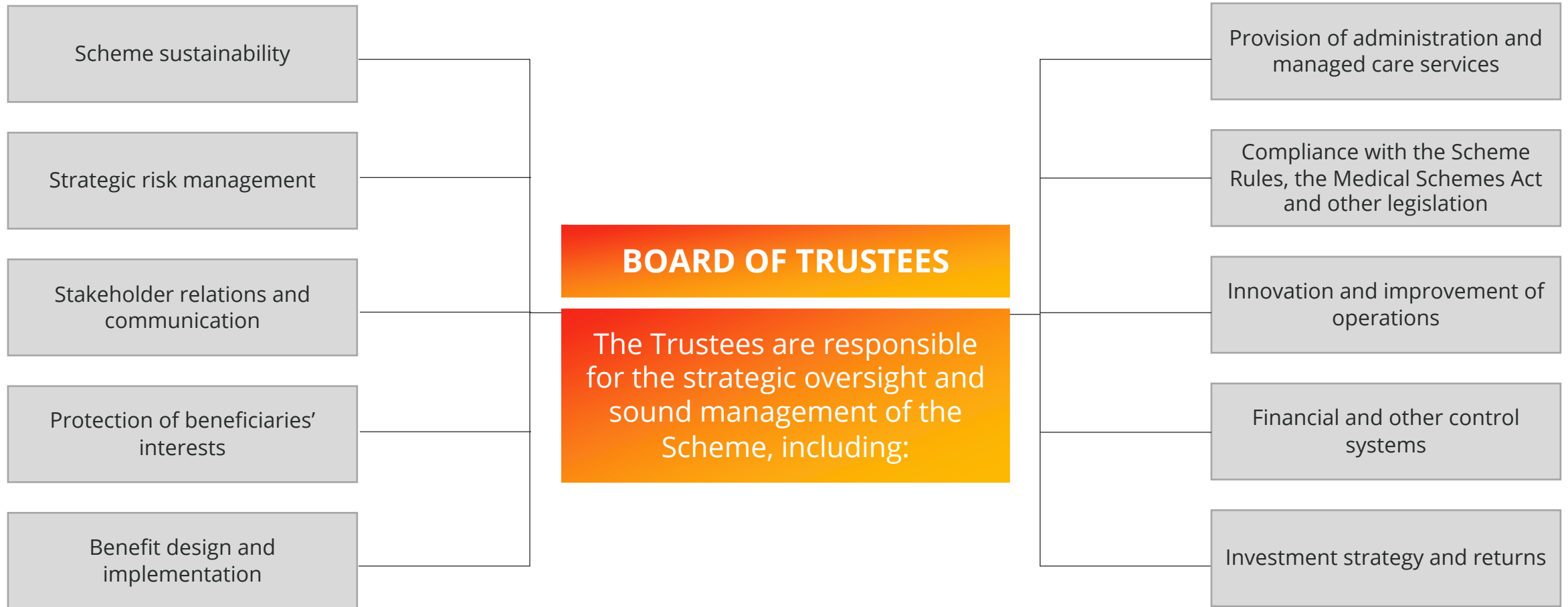


EFFECTIVE CONTROL

LEGITIMACY

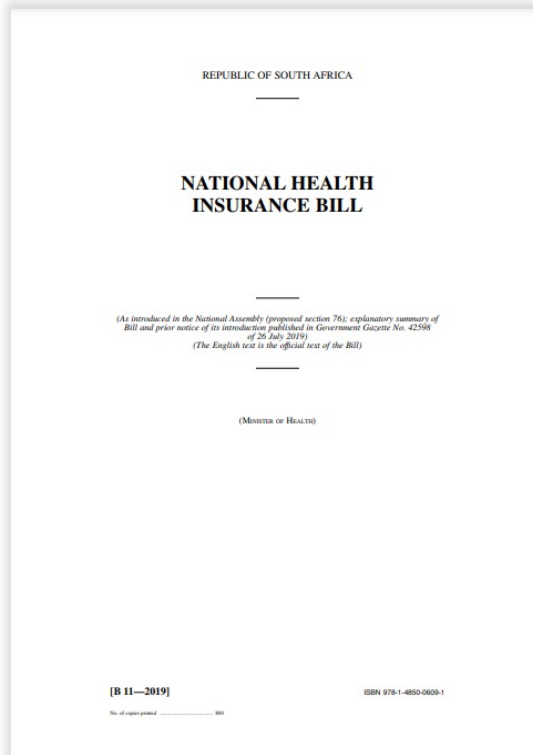


Roles, responsibilities and fiduciary duties of elected Trustees



National Health Insurance submission and update

Active participation in LCBO Framework engagements to extend scheme coverage



DHMS is in support of universal health access



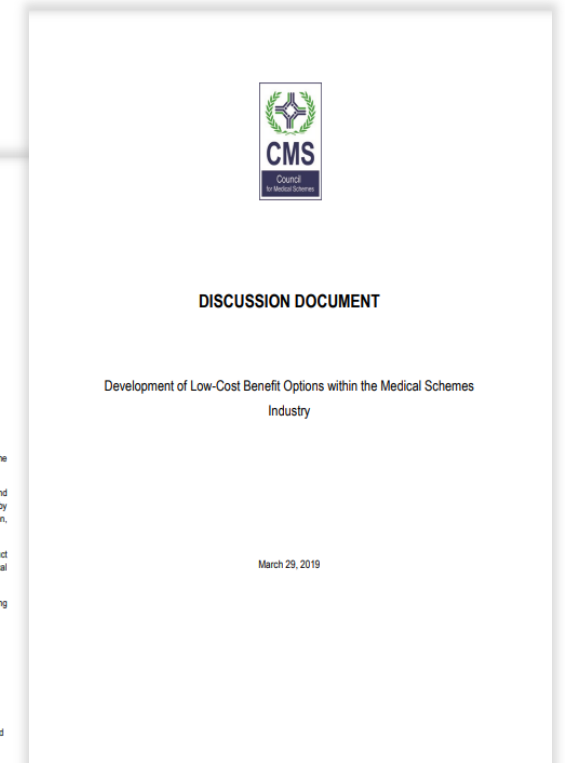
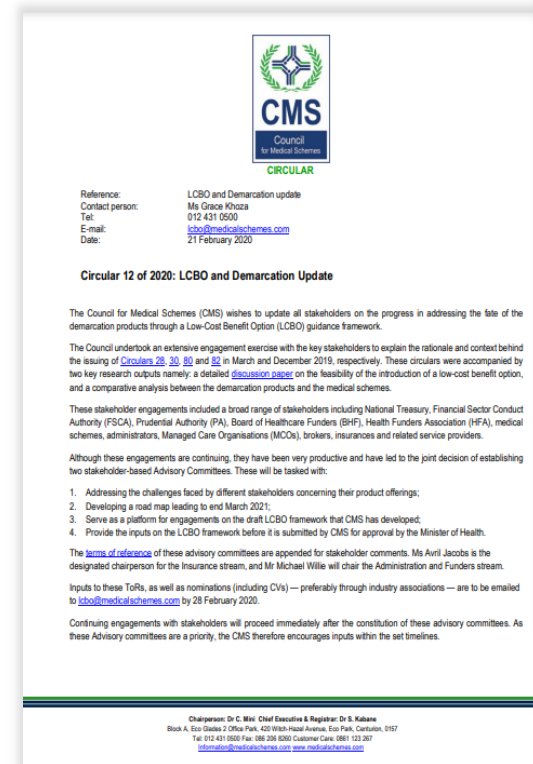
Changes are needed to strengthen the health system in anticipation of UHC



Public and private providers should play a role in ensuring equitable access to quality healthcare



DHMS makes regular submissions on the NHI Bill



We
exist
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members



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FOR OUR MEMBERS

DISCOVERY HEALTH MEDICAL SCHEME |
ANNUAL GENERAL MEETING

CHARLOTTE MBEWU | PRINCIPAL OFFICER

23 JUNE 2022





DHMS ANNUAL GENERAL MEETING

Chief Executive Officer, Discovery Health | Dr Ryan Noach
June 2022





Review of past performance



Key trends impacting health in 2022 and beyond



COVID-19 | the next frontier



Maximising DHMS member value



Review of past performance



Key trends impacting health in 2022 and beyond



COVID-19 | the next frontier



Maximising DHMS member value

Medical scheme industry shows no growth with DHMS an outstanding outlier

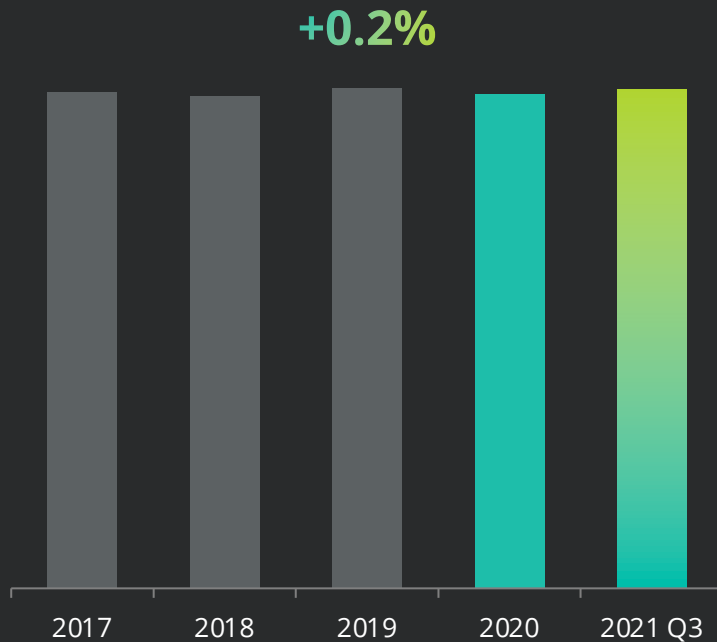


Industry lives remain flat

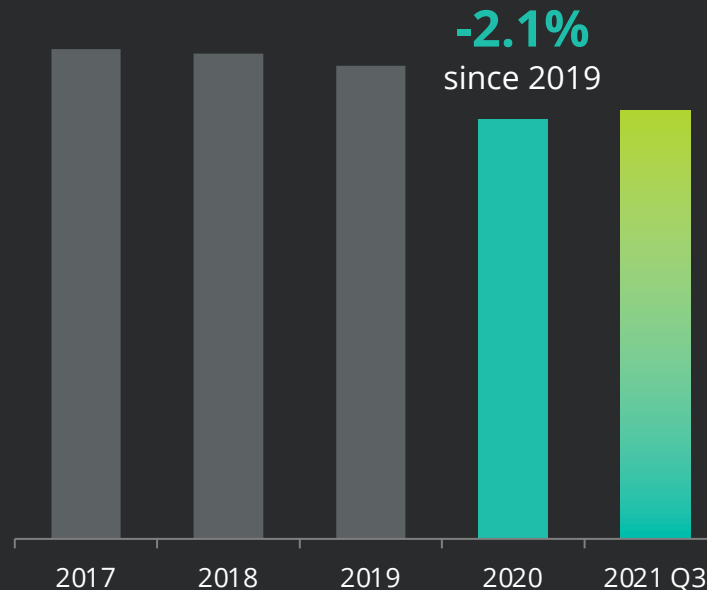
Open medical scheme membership has reduced

Larger medical schemes more resilient to membership shifts over 2020

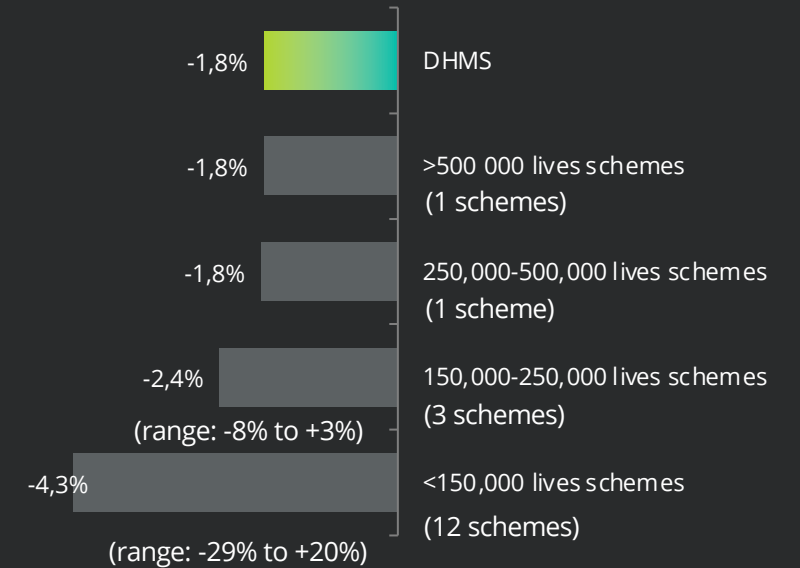
Total schemes beneficiaries
(2017-2021 Q3)



Total open schemes beneficiaries
(2017-2021 Q3)



Percentage change in number of beneficiaries
(2019-2020)



Smaller schemes experienced more volatile membership

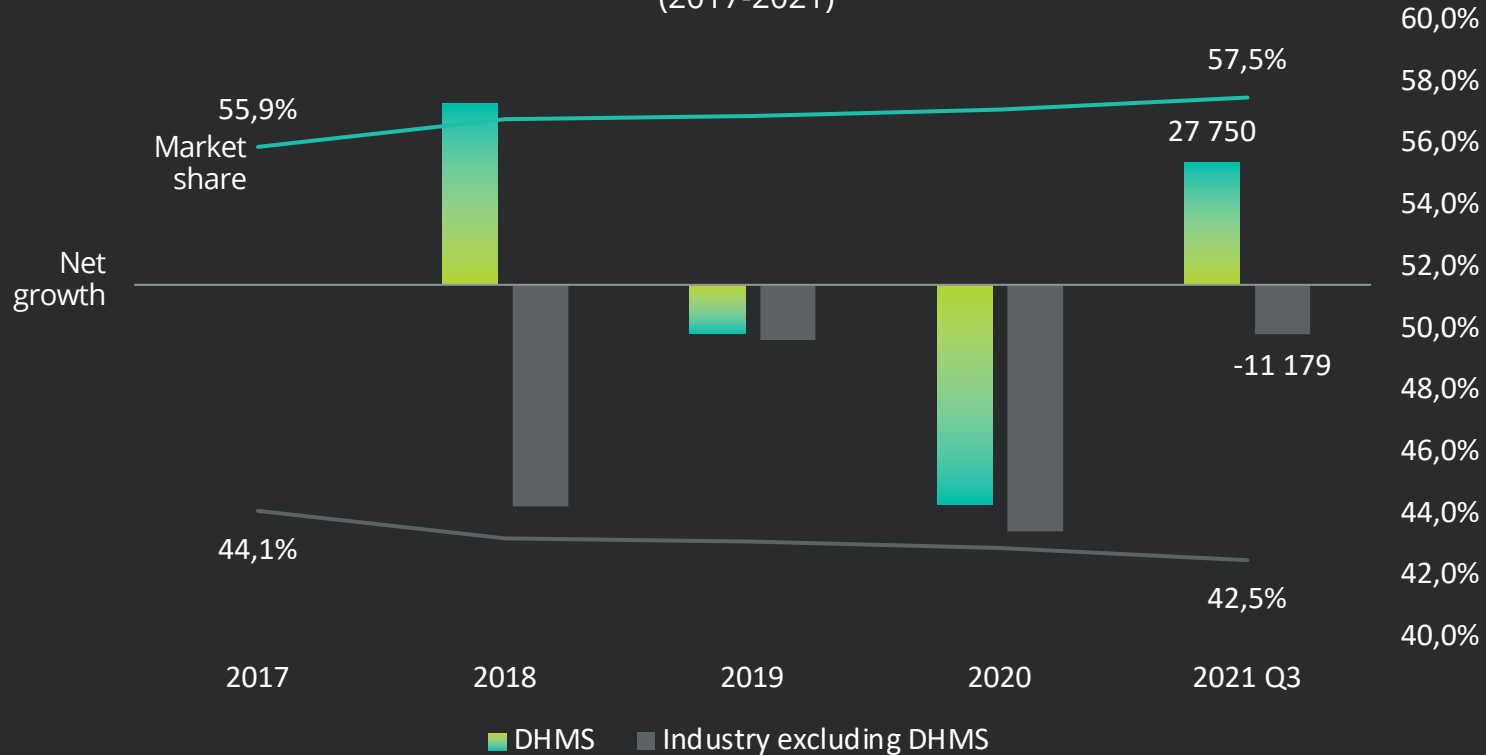
Growth in DHMS membership in 2021 persists in 2022



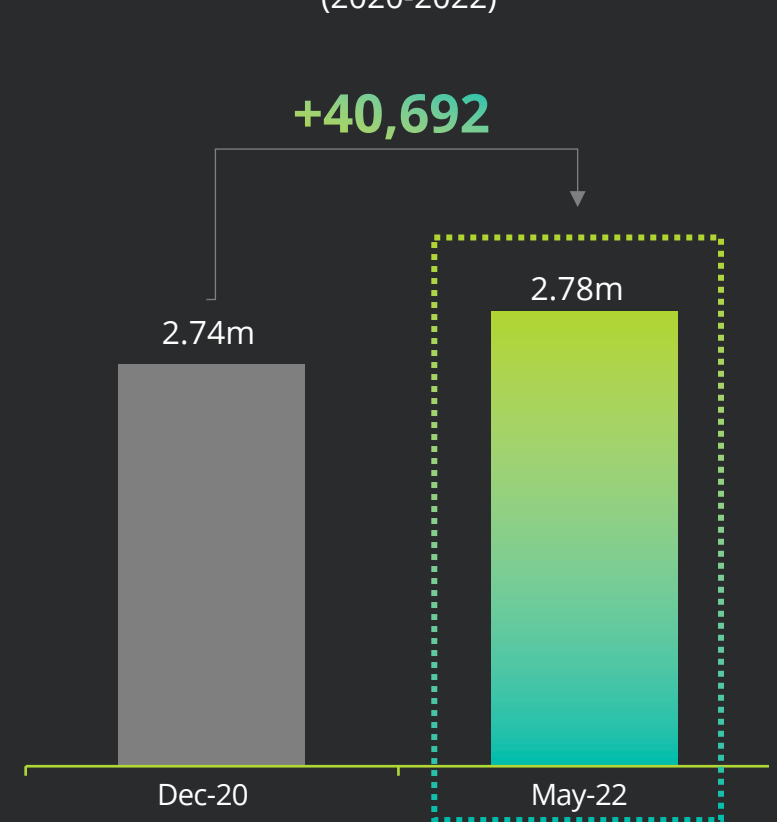
DHMS' increasing membership resulting in market share increases to 57.5%

Positive DHMS growth continues into 2022

DHMS Market Share
(2017-2021)



DHMS beneficiaries
(2020-2022)

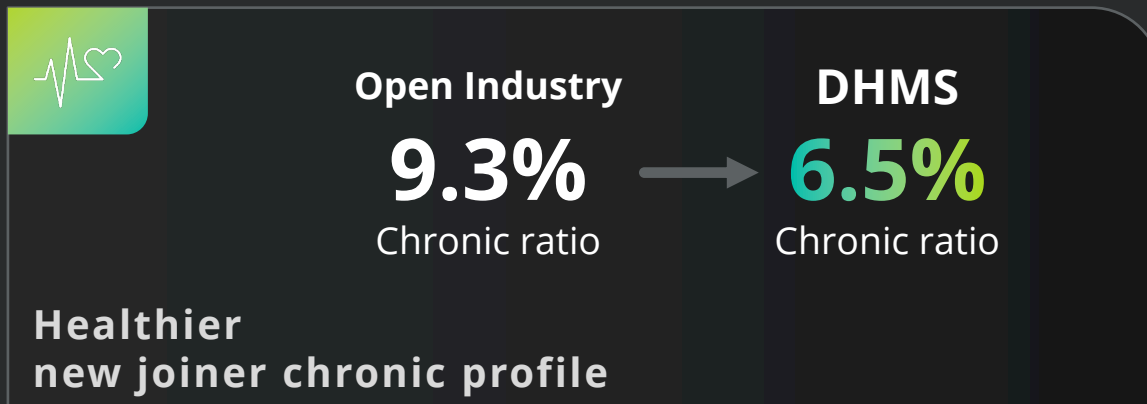
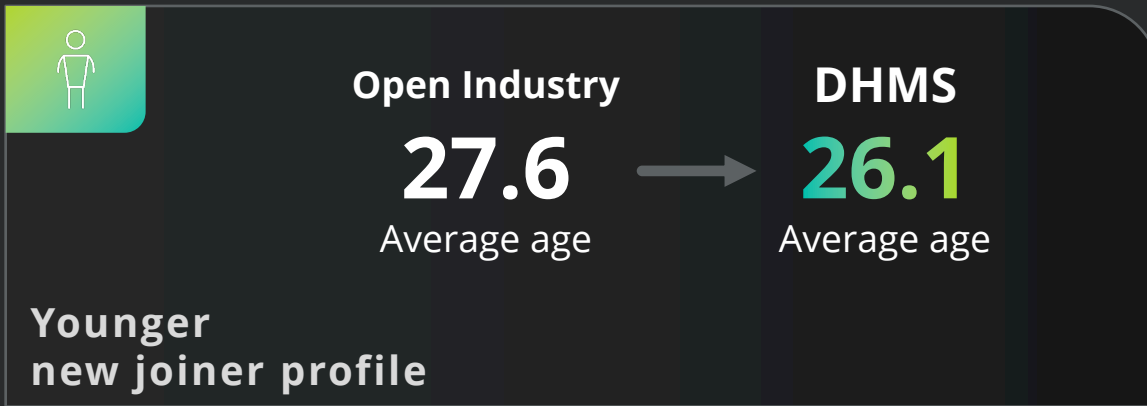


Flight to quality and stability persists, representing positive long-term DHMS outlook

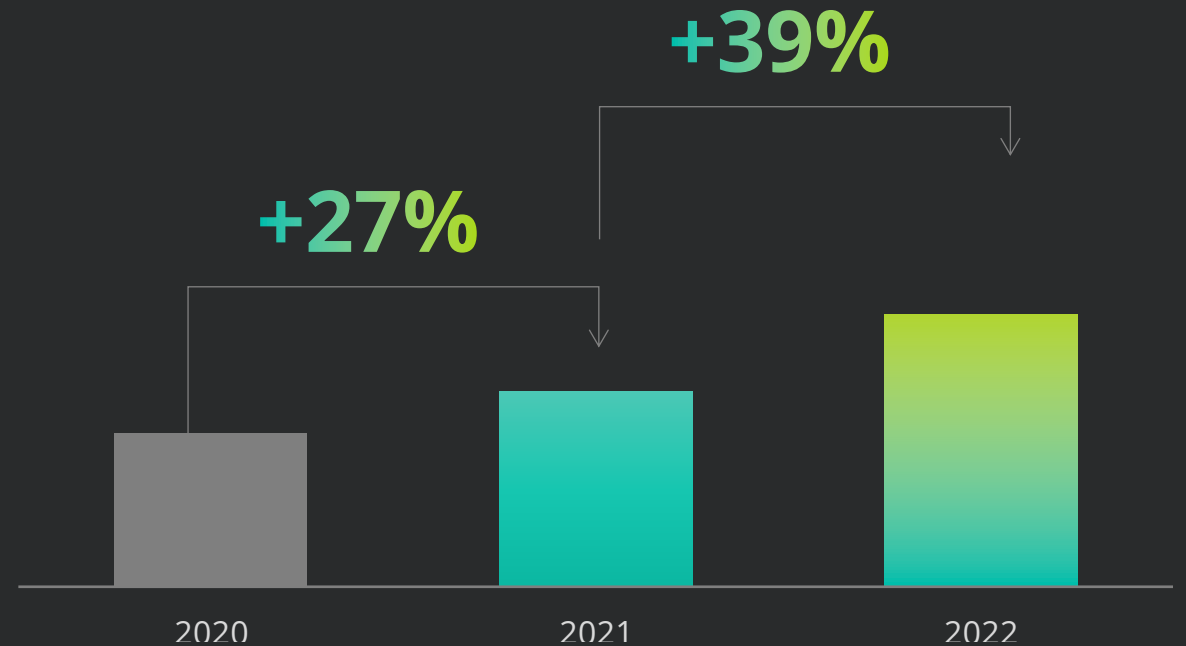


Healthy demographic profile of new joining members

Higher levels of Vitality-integrated policies, contributing to higher surplus generated



Vitality take-up of new DHMS policies (2020-2022)



2.1x improved surplus generated by integrated policies

Healthcare insurers globally price medical inflation in 2022 at existing levels



Global trends indicate the return of utilisation

Most Marketplace-participating insurers are assuming COVID-19 will have no effect on their 2022 costs

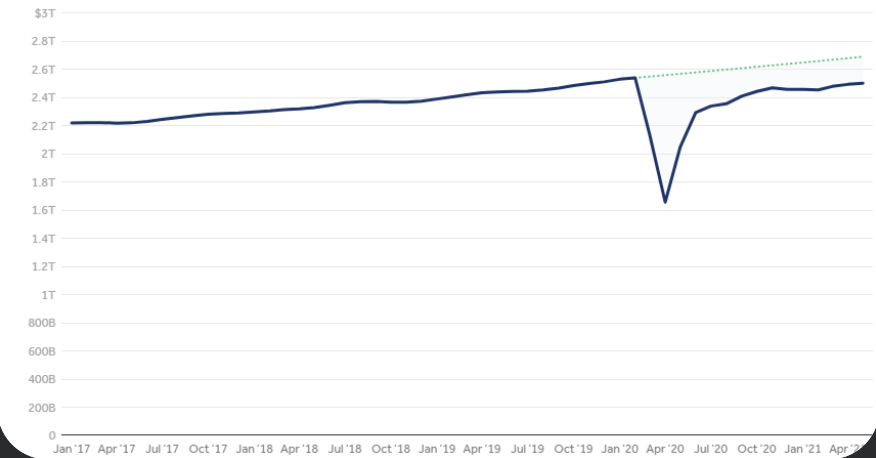
Global insurers expect COVID-19 to have limited impact on 2022 healthcare costs

Insurer filings suggest COVID-19 pandemic will not drive health spending in 2022

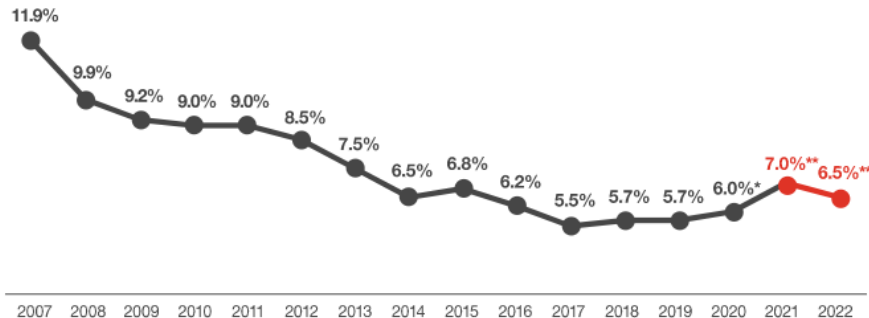
By Giorlando Ramirez, Jared Ortaliza, Matthew McGough, Nisha Kurani, Emma Wager, Venkatesh Satheeskumar, Krutika Amin, and Cynthia Cox

Healthcare use plummeted early in the pandemic, but has mostly rebounded

Healthcare services expenditures (seasonally adjusted annual rates), Jan. 2017-May 2021



PwC's medical cost trend



Source: PwC Health Research Institute medical cost trends, 2007-22

*Projected medical cost trend. Does not account for the effects of the pandemic on actual 2020 spending.

**Growth in spending expected over prior-year spending, with the effects of the pandemic removed from the prior-year spending. See report Appendix for details.

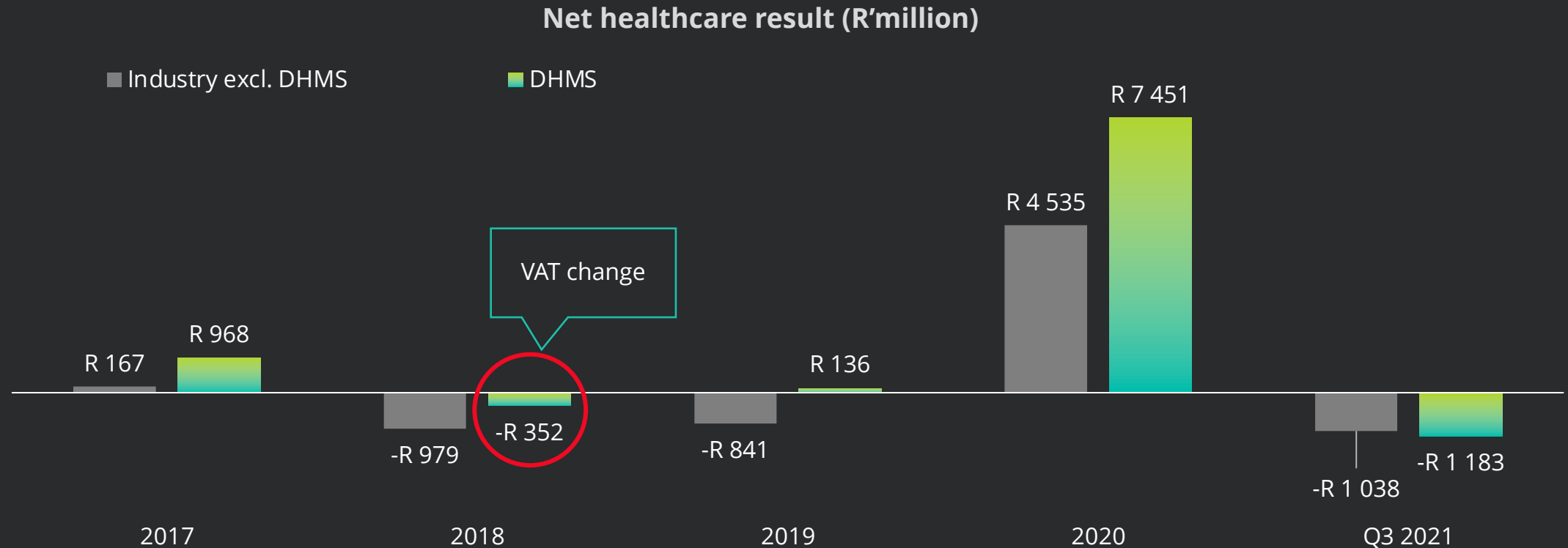
Note: The 7% medical cost trend for 2021 was revised from a range of scenarios, from 4% to 10%, originally projected in PwC Health Research Institute's "Medical Cost Trend: Behind the Numbers 2021" report in June 2020. See report Appendix for details.

50 out of 53 insurers in the US stated COVID-19 will have either no impact or an upward impact on 2022 healthcare costs

Clear evidence of pricing accuracy in DHMS contribution strategy



Operating loss in 2021 for the rest of the industry points to **under-pricing**





DHMS' operating loss during Q1-Q3 2021 was intentional through a deferred contribution increase. The rest of the industry under-priced contributions and will require correction if healthcare trends continue

DHMS pricing approach has led to more affordable contributions and better price stability for members



Comparing a **LOWER** increase to a **DEFERRED** increase

DHMS members have effectively paid less contributions through efficient use of reserves

| Year |  DHMS increase |  Next largest competitor increase |
|--------------------------------------|---|---|
| Dec 2020 | R2,200 | R2,200 |
| Jan – June 2021 | R2,200 | R2,301 |
| July – Dec 2021 | R2,330 | R2,301 |
| Jan – Sept 2022 | R2,330 | R2,412 |
| Oct – Dec 2022 | R2,514 | R2,412 |
| TOTAL CONTRIBUTIONS 2021-2022 | R55,689 | R56,554 |

Deferment strategy resulted in the use of 1.6% more reserves to support member affordability

*Based on an average contribution of R2 200

DHMS pricing approach has led to more affordable contributions and better price stability for members



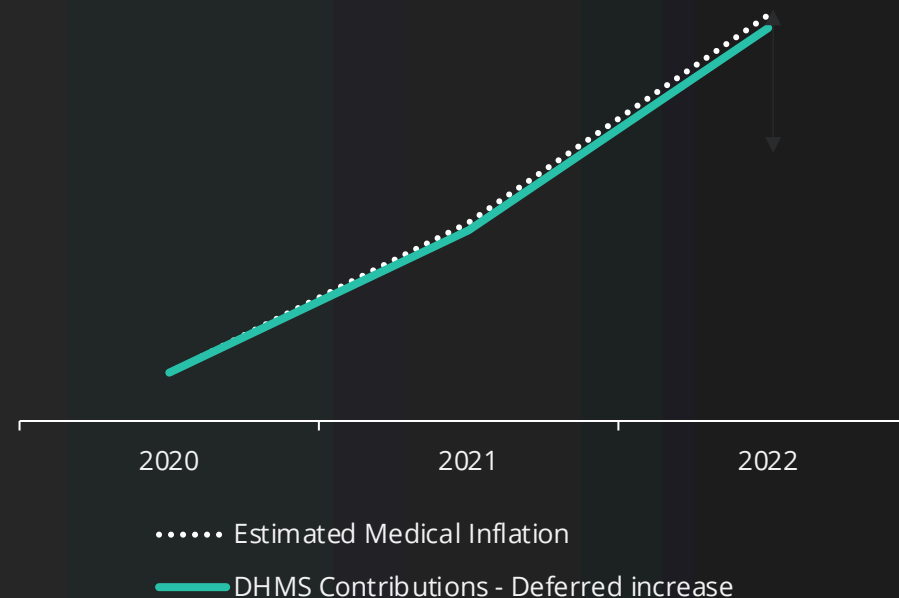
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DHMS member contributions have kept pace with medical inflation



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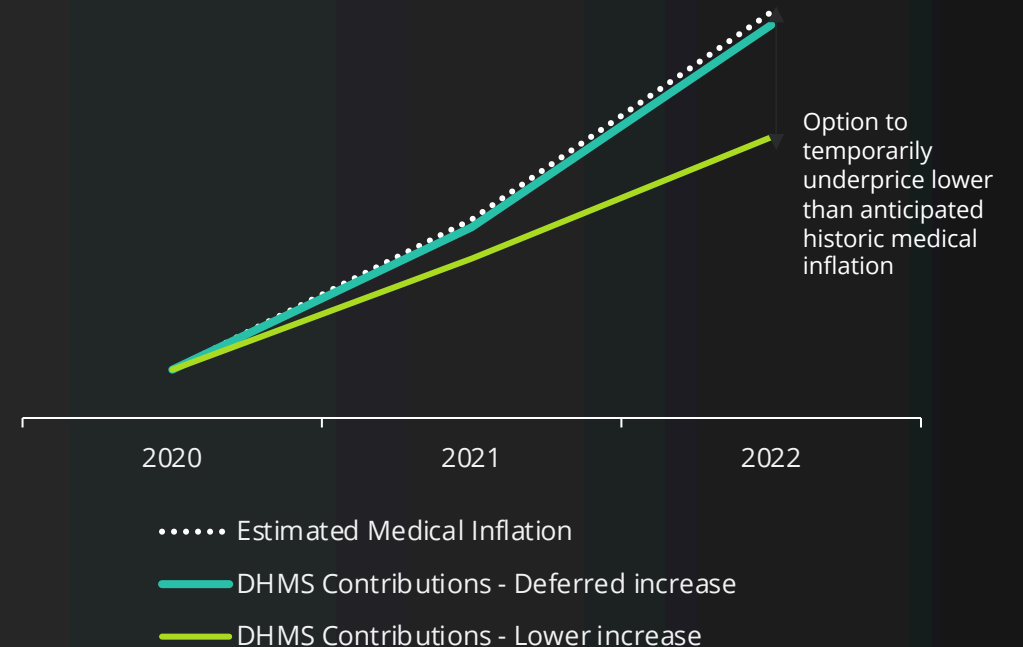
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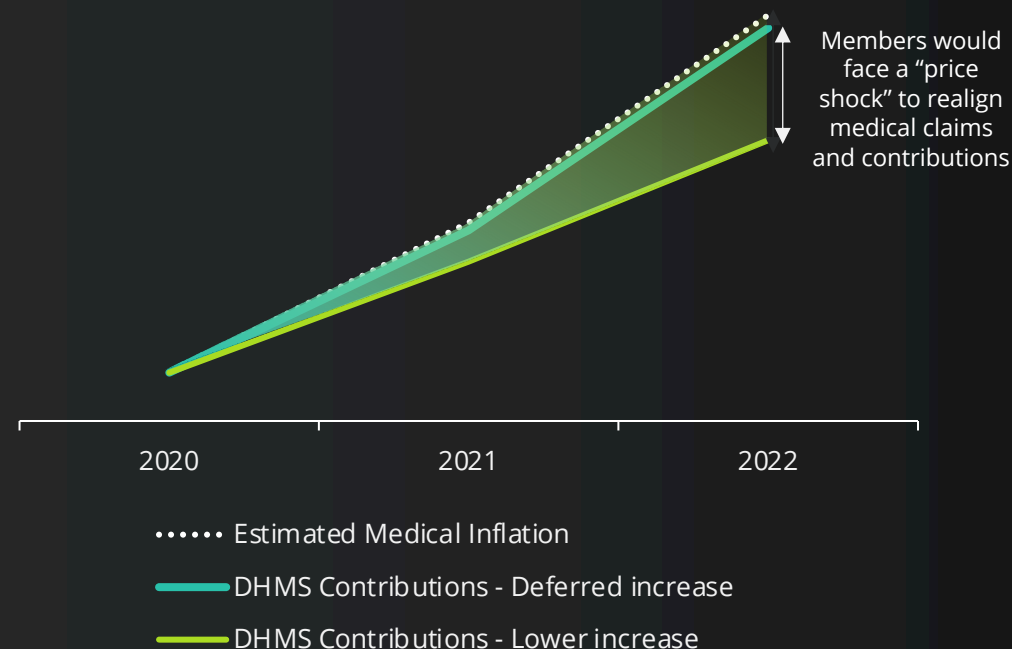
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DHMS member contributions have kept pace with medical inflation



DHMS pricing strategy favourable to support short-term affordability while balancing long-term sustainability



DHMS



Taking into account the contribution increase deferral strategy, members **paid lower** contributions during 2021 and 2022

0.5% lower on average than the rest of the industry



Contribution levels **remain in line with anticipated future medical inflation**

This **avoids** the need for future price shocks to members

Industry



Members had a lower contribution increase but with no deferral, **paid higher** contributions during 2021 and 2022



Contribution levels **fall behind expected medical inflation**

Future price shocks estimated are **required** to realign member claims and contributions to anticipated medical inflation

Strong DHMS outlook for 2022 and beyond

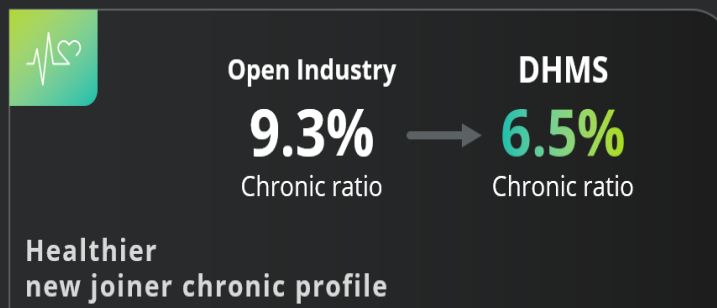
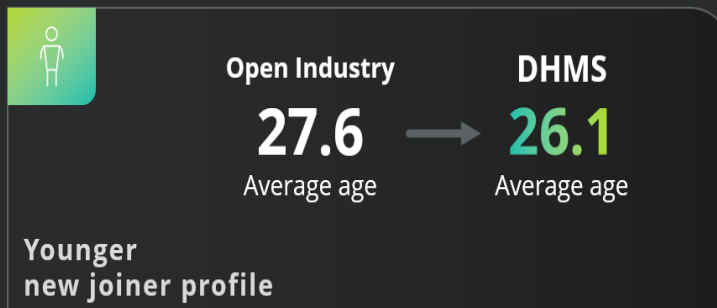
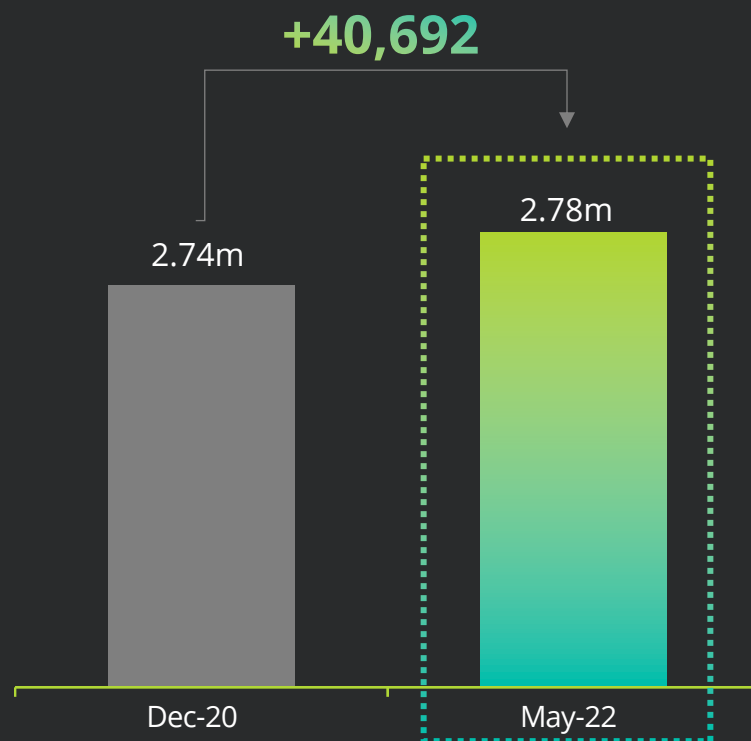


Strong growth continues into 2022

Healthy demographic profile of new joining members

Affordability enhanced through contribution deferral

DHMS beneficiaries



Contribution increase deferred to 1 October 2022

amounting to total cash savings of **~R5 billion** for members during 2022

following cash savings of **~R2.2 billion** during 2021



Review of past performance



Key trends impacting health in 2022 and beyond

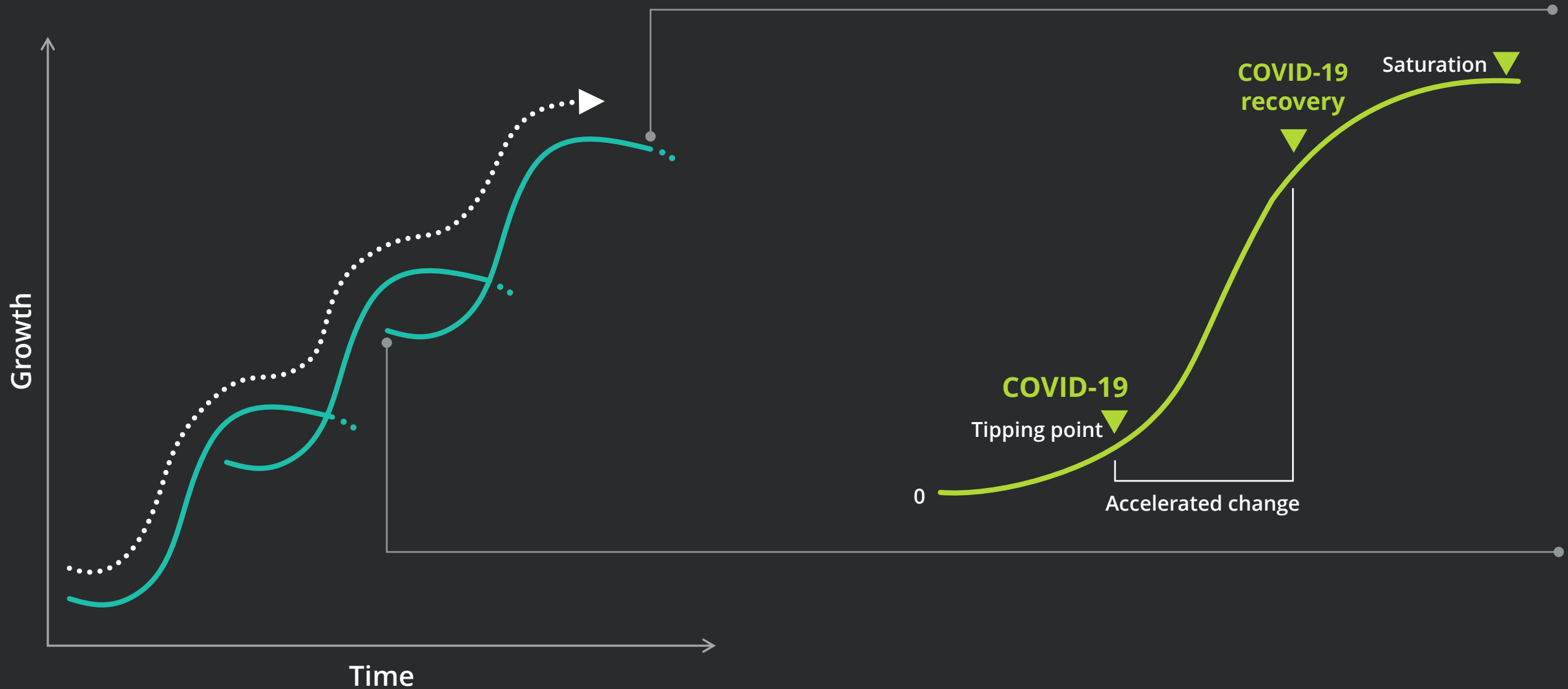


COVID-19 | the next frontier

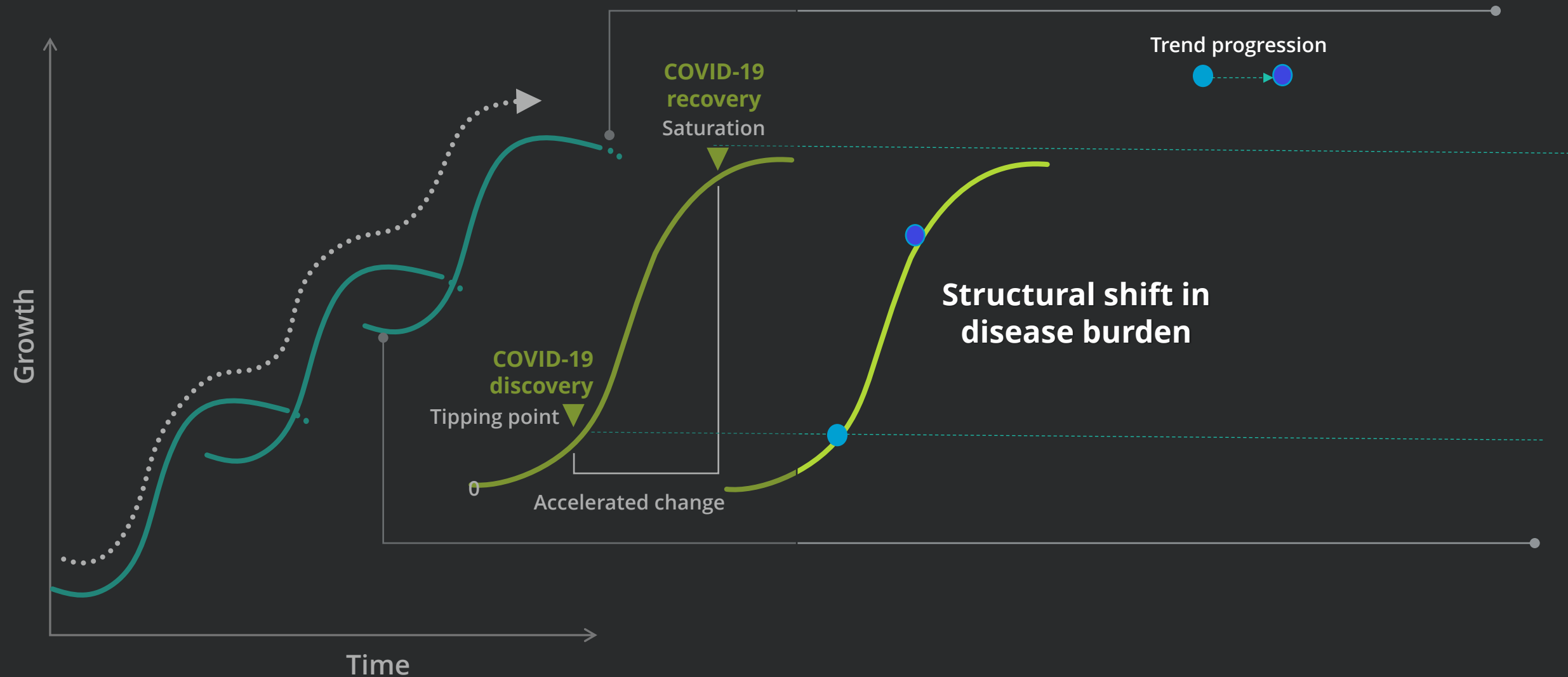


Maximising DHMS member value

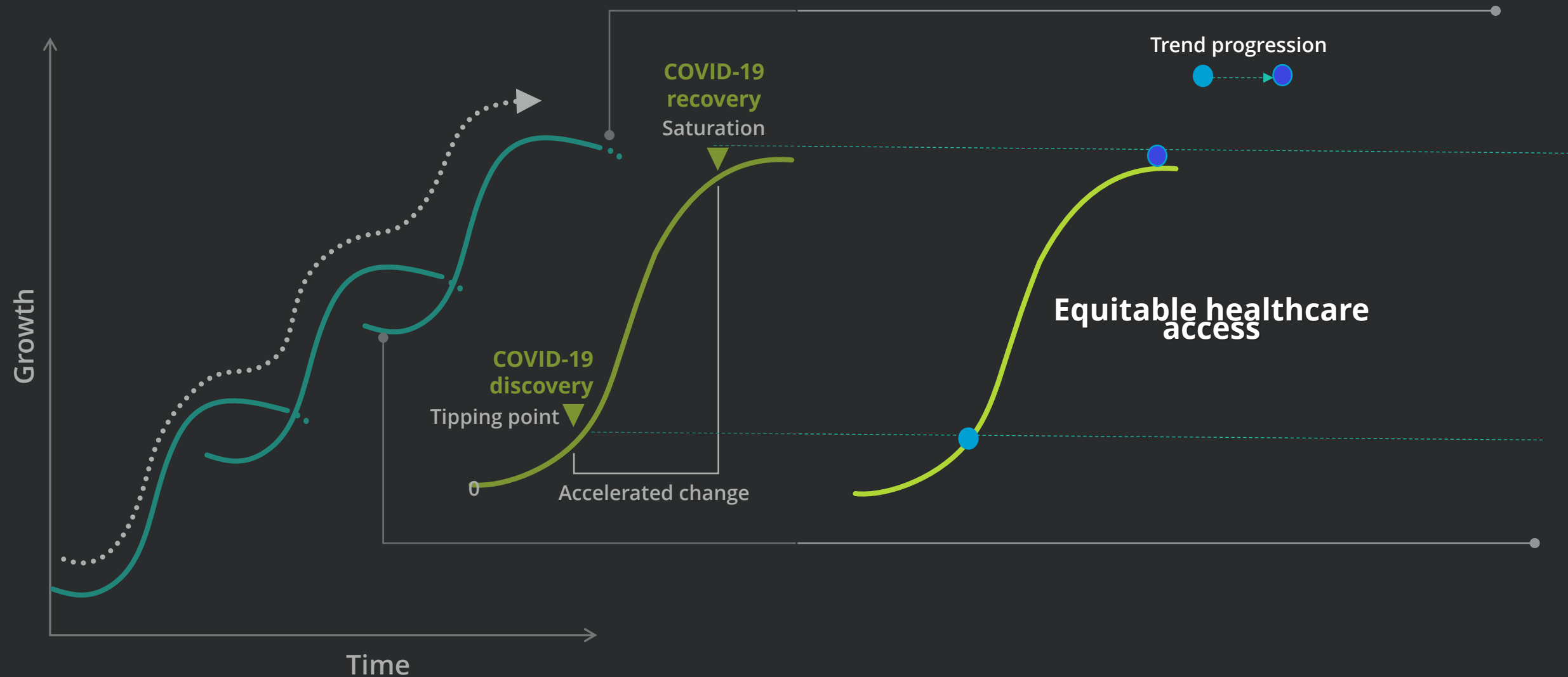
Evolution of global and local healthcare trends



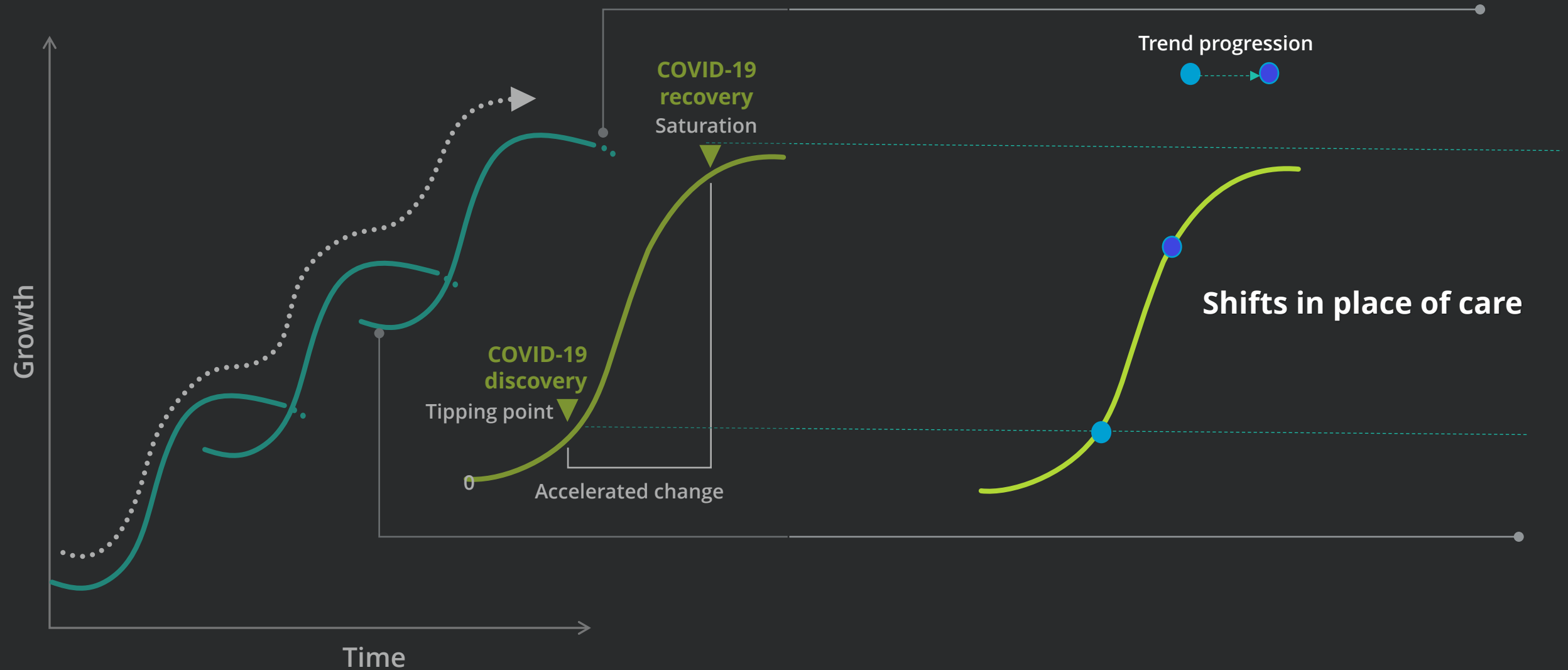
Evolution of global and local healthcare trends



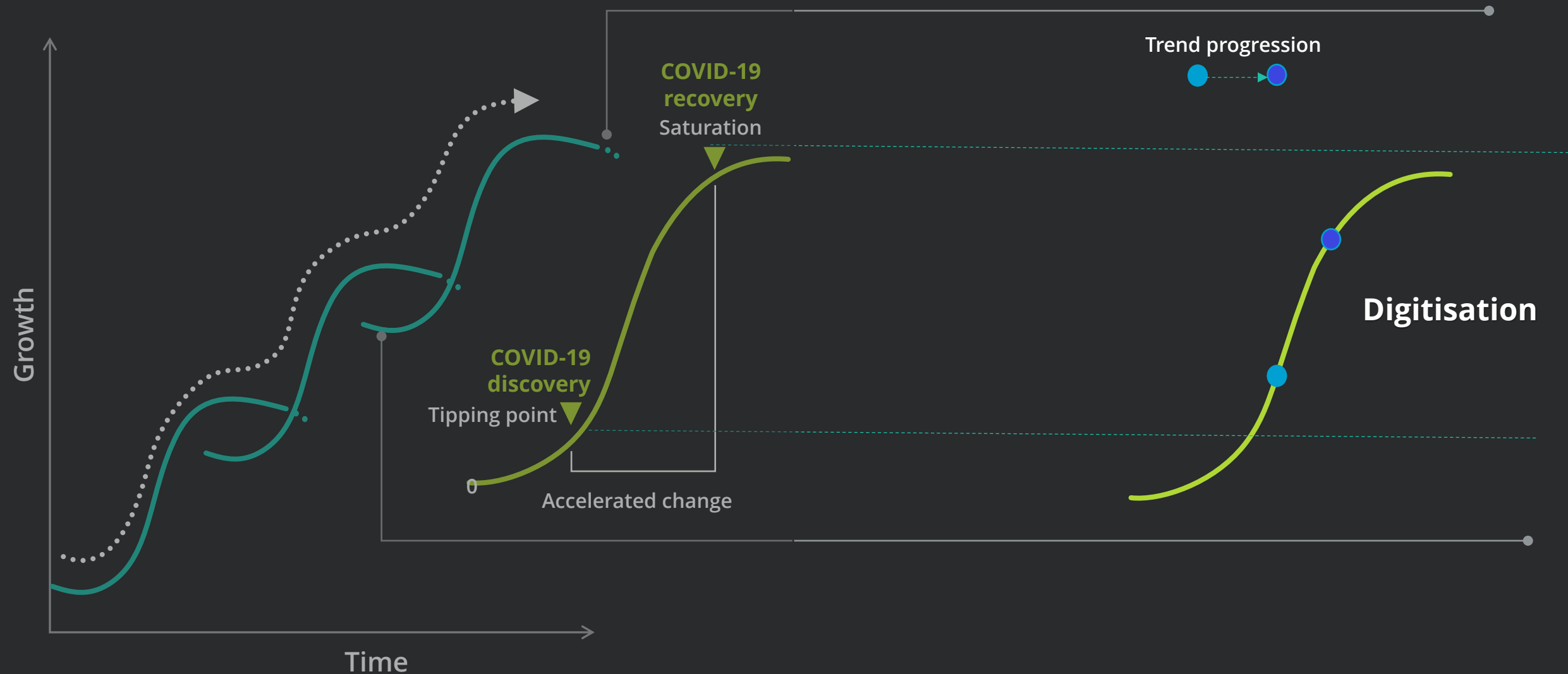
Evolution of global and local healthcare trends



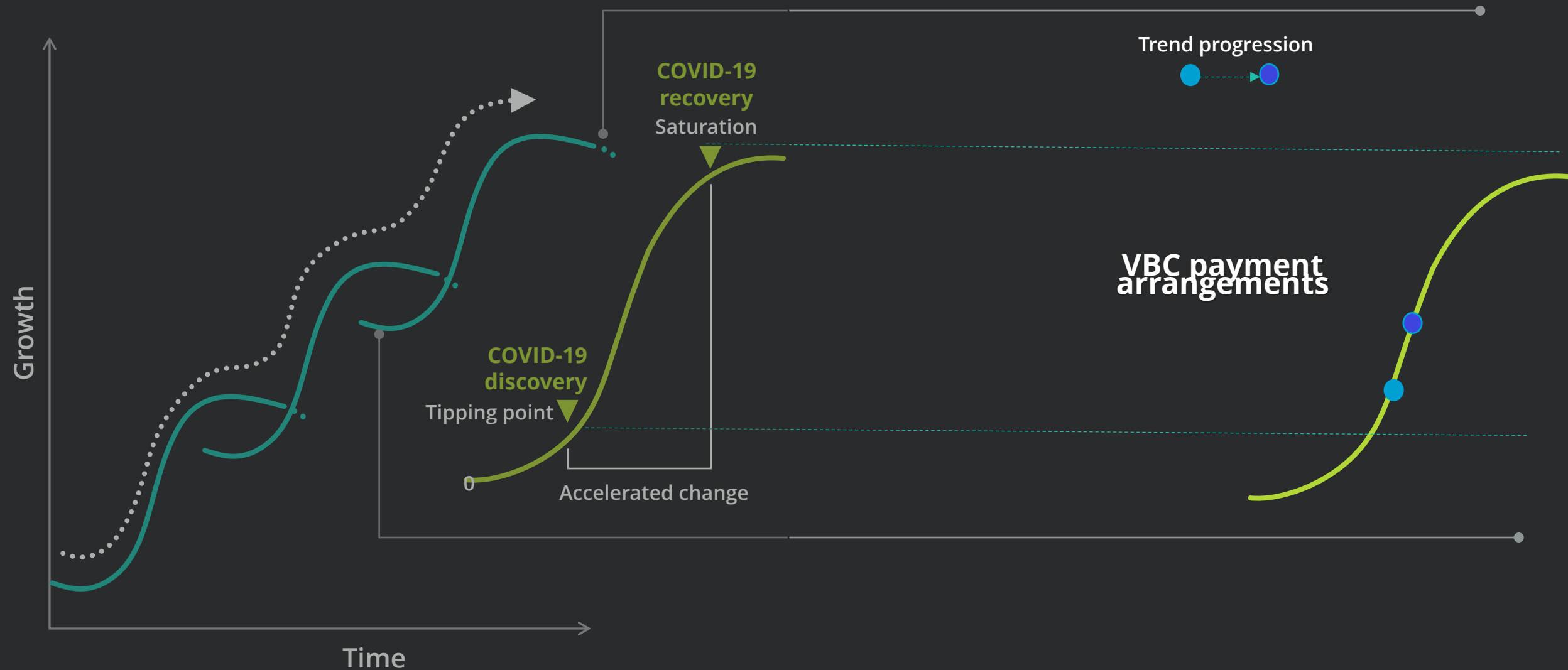
Evolution of global and local healthcare trends



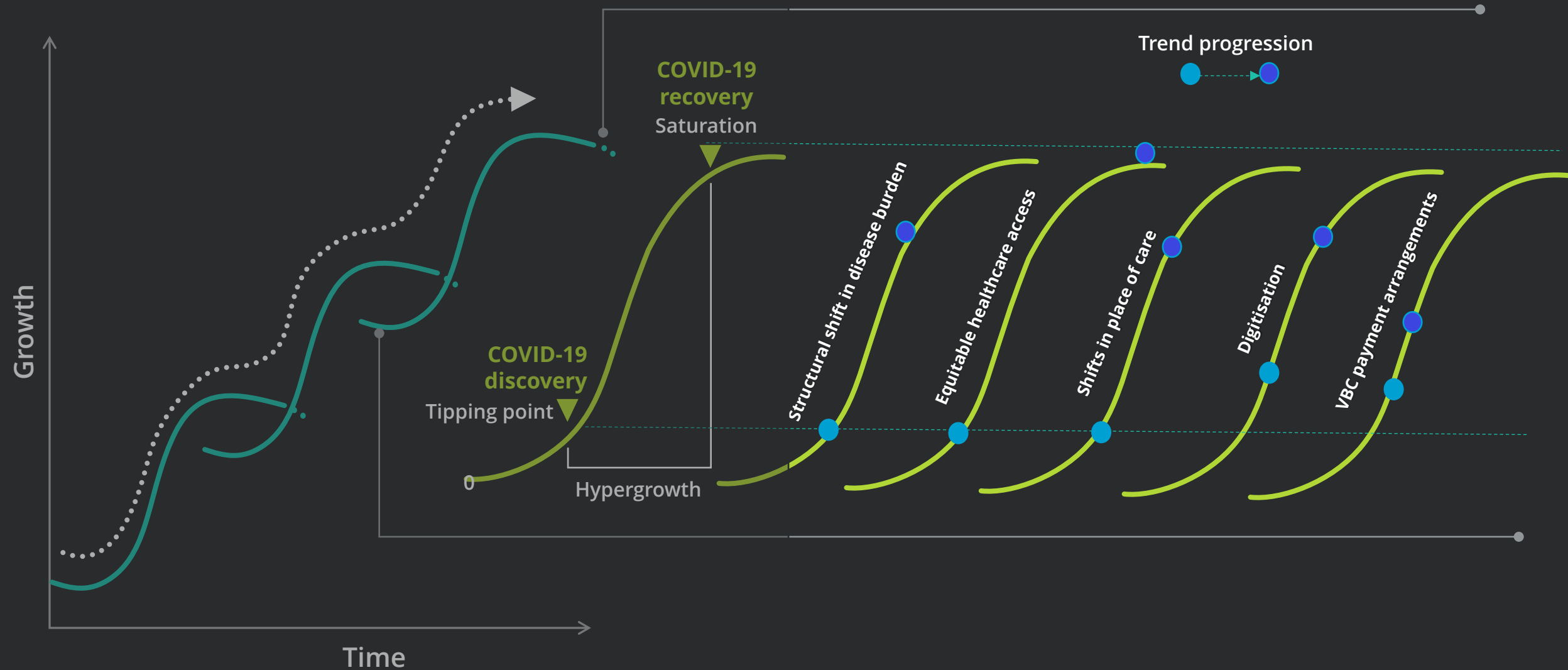
Evolution of global and local healthcare trends



Evolution of global and local healthcare trends



Evolution of global and local healthcare trends



2022 trends in global and local healthcare



2022 healthcare trends



Structural shift in disease burden



Value-based care payment arrangements



Shifts in place of care



Equitable healthcare access

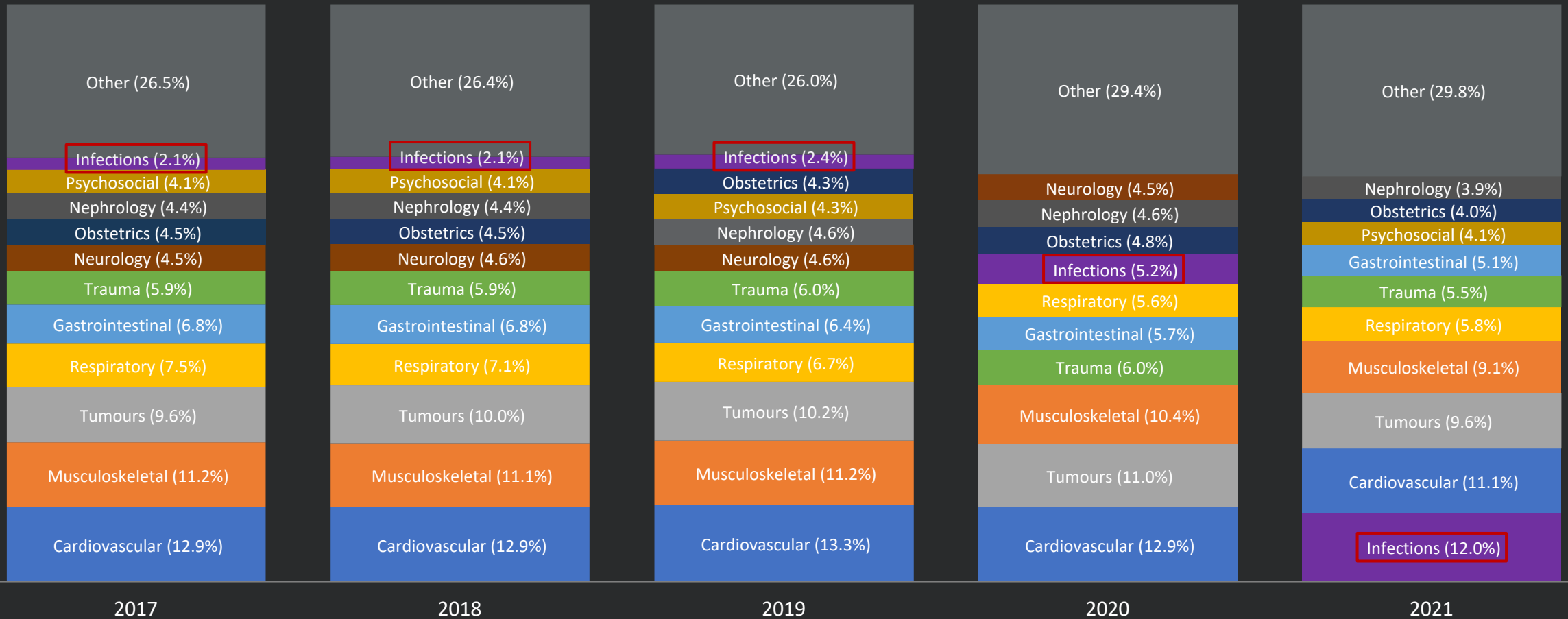


Expansive digitisation



COVID-19 was the largest clinical driver of claims experience in 2021, leading to a structural shift in claims drivers

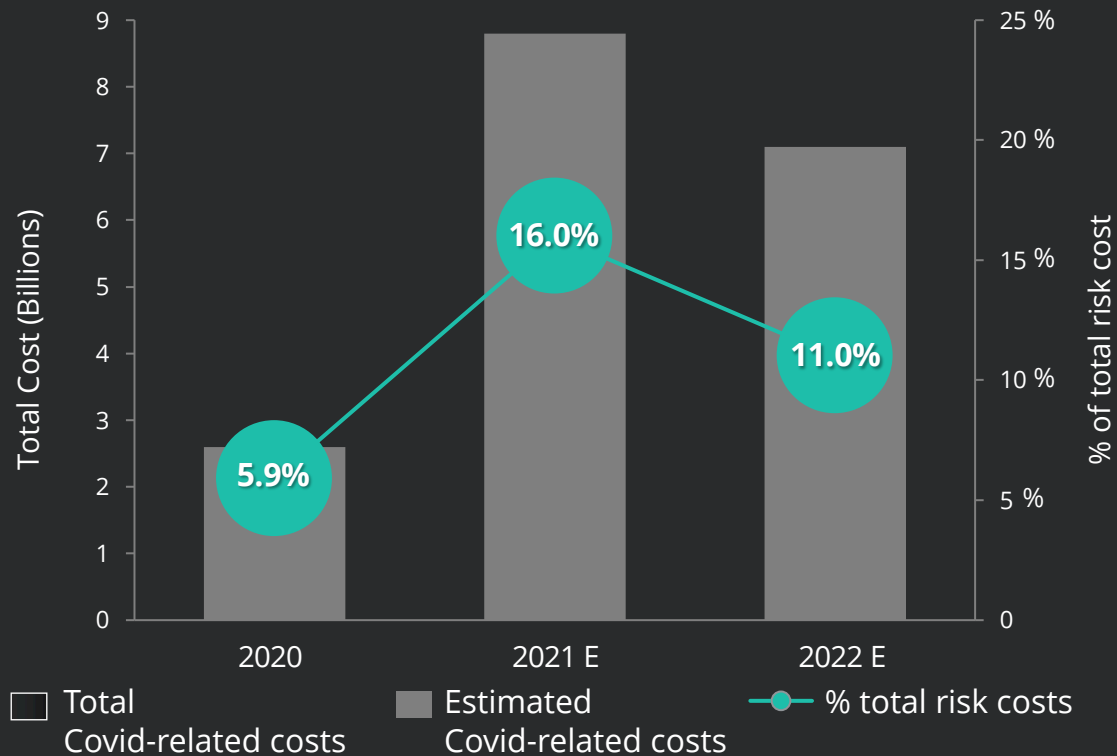
Risk amount paid by Discovery Episode Grouper disease chapter- YTD October





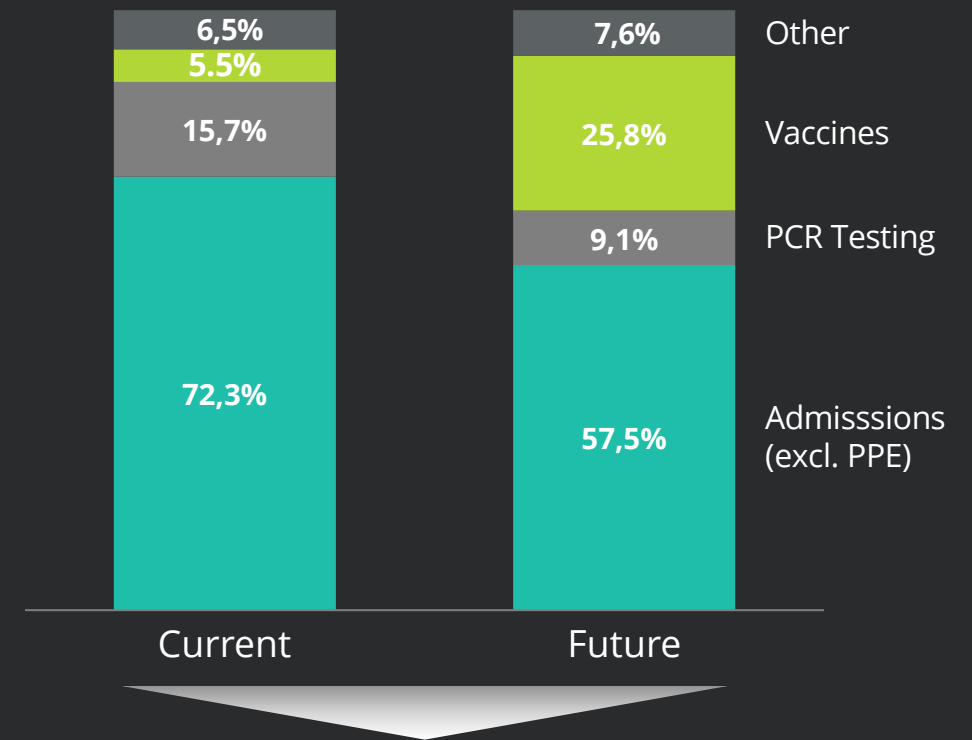
Covid-19 will add 11% to the cost of healthcare in 2022... ...if utilisation for other conditions settles at pre-Covid levels

Covid-related benefit expenditure



The estimated cost contribution of Covid-19 for 2022 is 11%, which is additive if utilisation returns to previous levels

Distribution of Covid-related costs



The highest driver of cost will continue to be hospital admissions for Covid-related complications



The increase in disease burden, decrease in physical activity, and mental health challenges requires a different healthcare approach

Polychronic patient trends are on the rise

Patients with more than 3 chronic conditions are increasing in numbers, driving healthcare costs

 **5% of US population** accounts for **45% of healthcare costs**

 **3% of DHMS population** accounts for **27% of healthcare costs**

9x gearing in cost for most complex patients internationally and for DH

The behavioural health crisis is intensifying

There is a ergonomic time bomb as levels of physical activity have decreased since the move to remote work in 2020

45%

Spending more time at their workstation

70%

of remote workers said they were experiencing more aches and pains

13%

Leading to higher levels of self-medication

24%

Reduction in average daily steps

Increase in mental health challenges

Increase in DHMS claims for psychology and psychiatry







DH has made great strides shifting to VBC arrangements that align incentives between payers and providers

Appendicectomy example

DHMS has advanced VBC contracting substantially



| |  Fee for Service |  Value Based Care |
|-------------------------|---|--|
| Complications | With complications | Without complications |
| Length of hospital stay | Extended | Shorter |
| Outcome | Sepsis & Pneumonia | Favourable |
| Provider earnings | Higher | Higher |

58% of hospital spend has moved to VBC arrangements as of 2022

Discovery Health aims to **shift 30 – 40%** of all spend to VBC by 2023

VBC aligns incentives between payers and providers

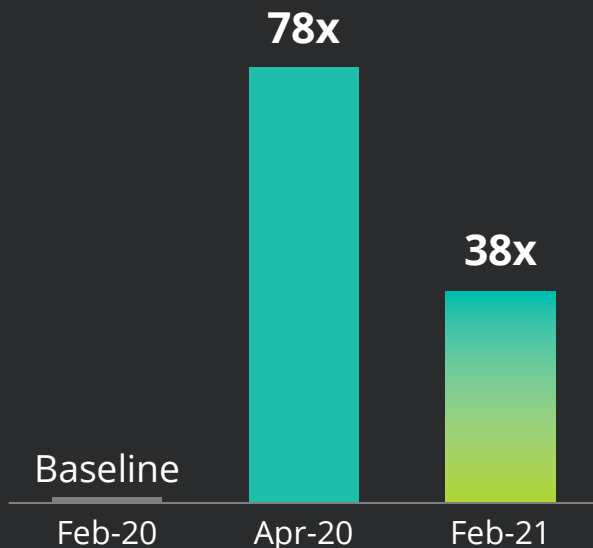
Accelerated trend towards digital healthcare with indications that the shift could persist



Global telehealth usage

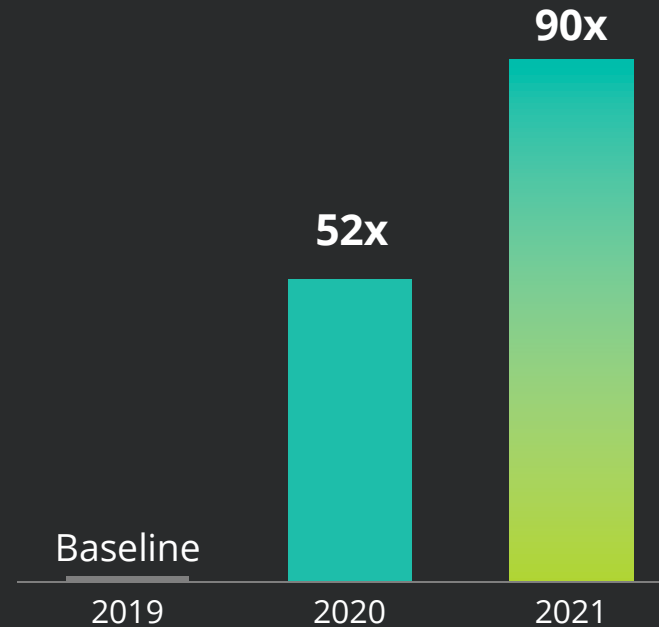
Global telehealth usage peaked during April 2020 but has since stabilised at **~40x pre-pandemic levels**

Telehealth claims volumes, compared to pre-Covid-19 levels



DH telehealth usage*

Regulatory pressure prevented telehealth from taking off in South Africa before 2020, so growth is off a small base



Strong indications that changes could persist

Major global payers such as United Healthcare, Cigna and CVS/Aetna launched **virtual first plans in 2021**

- These plans lower costs by directing care to a virtual primary care provider as the first point of care

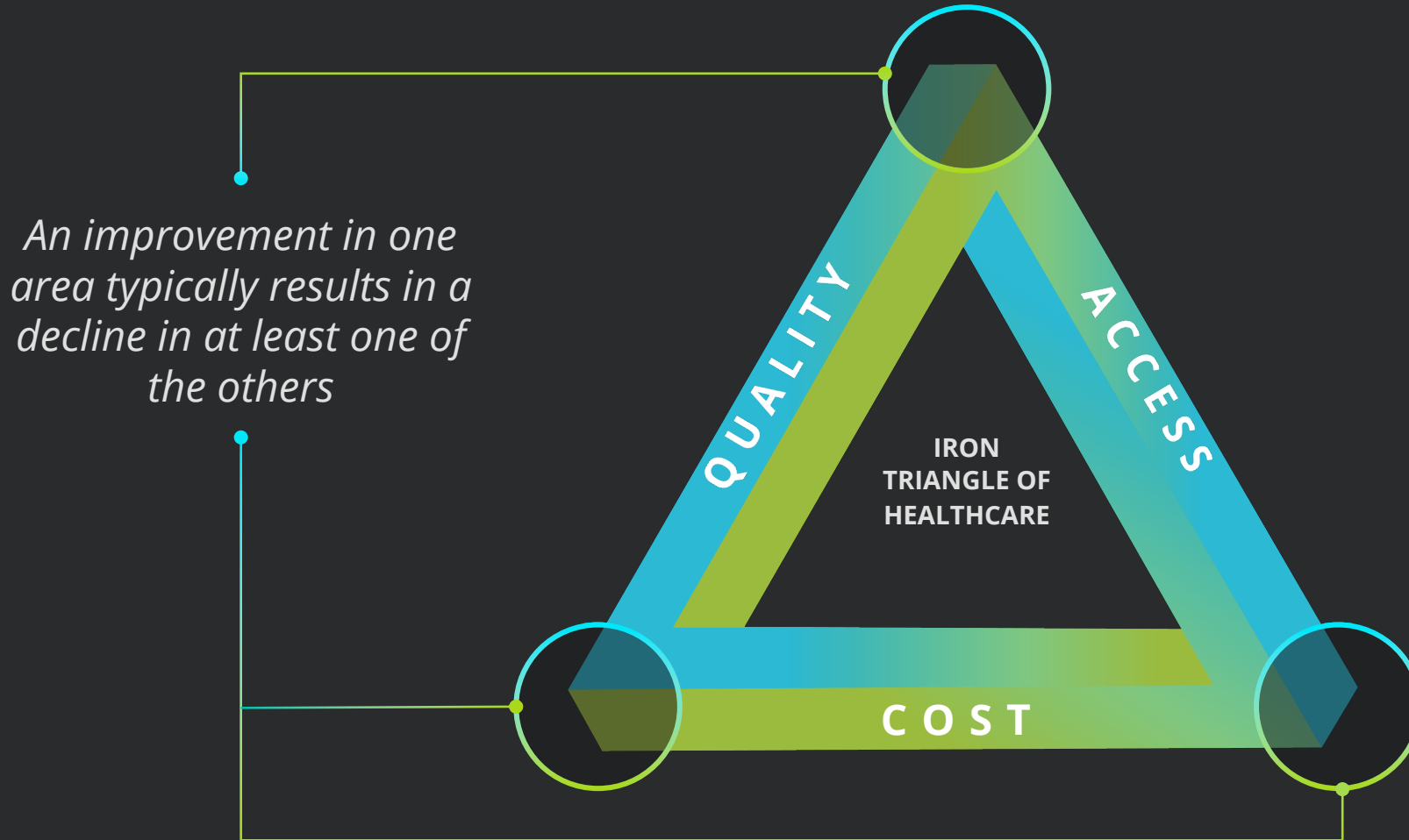
73% of telemedicine users expect to continue to use telemedicine at the same rate or higher in the future





Digital disruption “Breaking” the Iron Triangle of Healthcare

Traditional approach to healthcare – Access, cost and quality cannot all be simultaneously improved

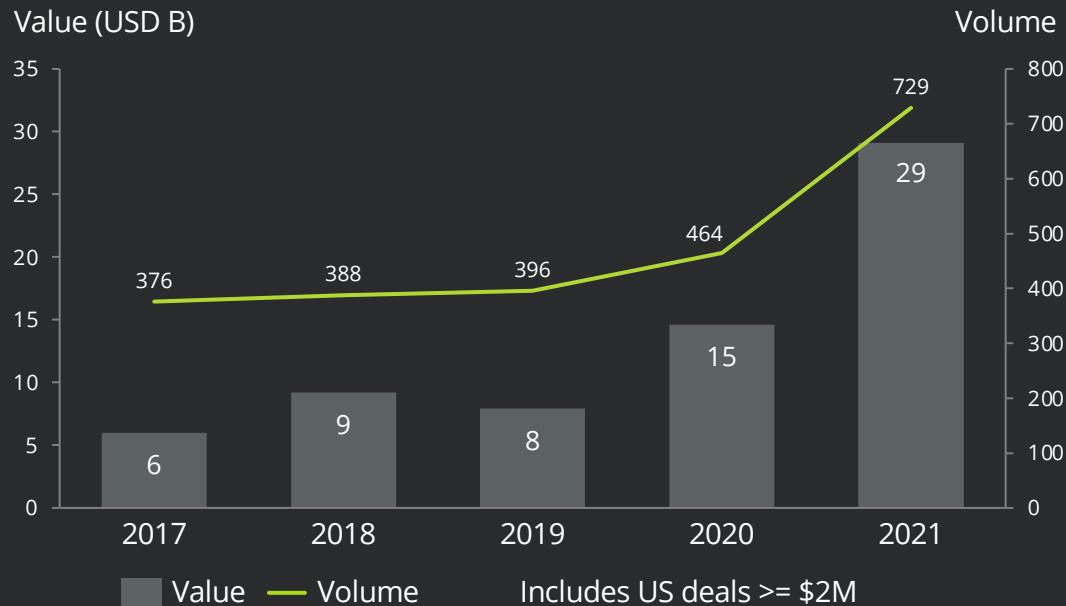


Digitisation can achieve a multi-faceted positive outcome

Digital health had a record year in 2021, with major investments in digital health ventures and high levels of activity from big tech...



Digital Health Venture Capital Investment



2021 Global healthcare **corporate M&A activity** also surged, with a focus on digital health:

- Volume up 16%
- Value up 44%
- Deal value of \$440B

Notable Big Tech Health Activity in 2021



- Microsoft spent **\$19.7B to acquire Nuance**, a leader in speech recognition AI for healthcare
- They also launched **Microsoft Cloud for Healthcare**, for enterprise healthcare organizations



- Amazon launched **3 consumer healthcare businesses** Amazon Care, Amazon Pharmacy, and AmazonDx
- They also unveiled **AWS for Health** a data science suite for enterprise healthcare organizations



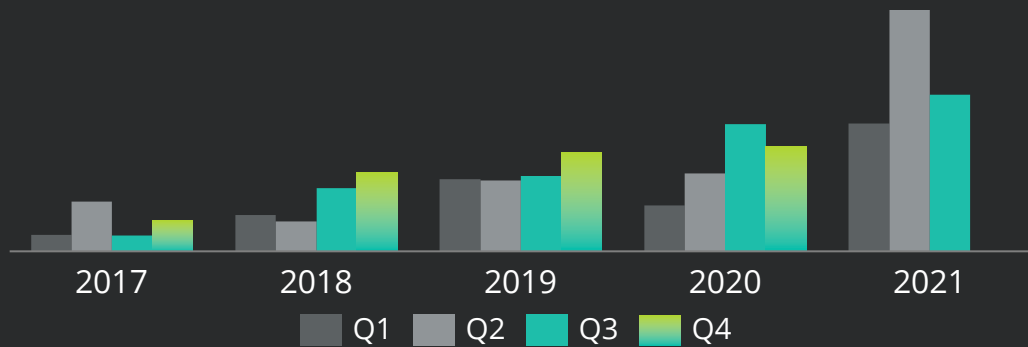
- Google **focused on provider and enterprise solutions** launching:
 - an **EHR search** solution for providers
 - an **interoperability solution** for payers, and
 - a return-to-work **test and trace program** for employers

...with a significant increase in ecosystem strategies globally across insurers

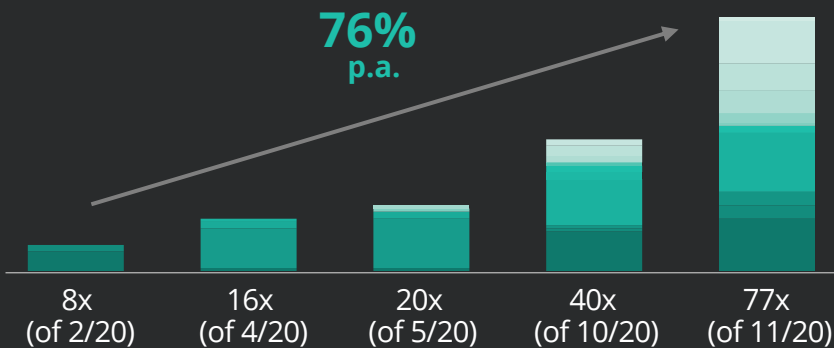


Insurtech and ecosystem strategies are increasing

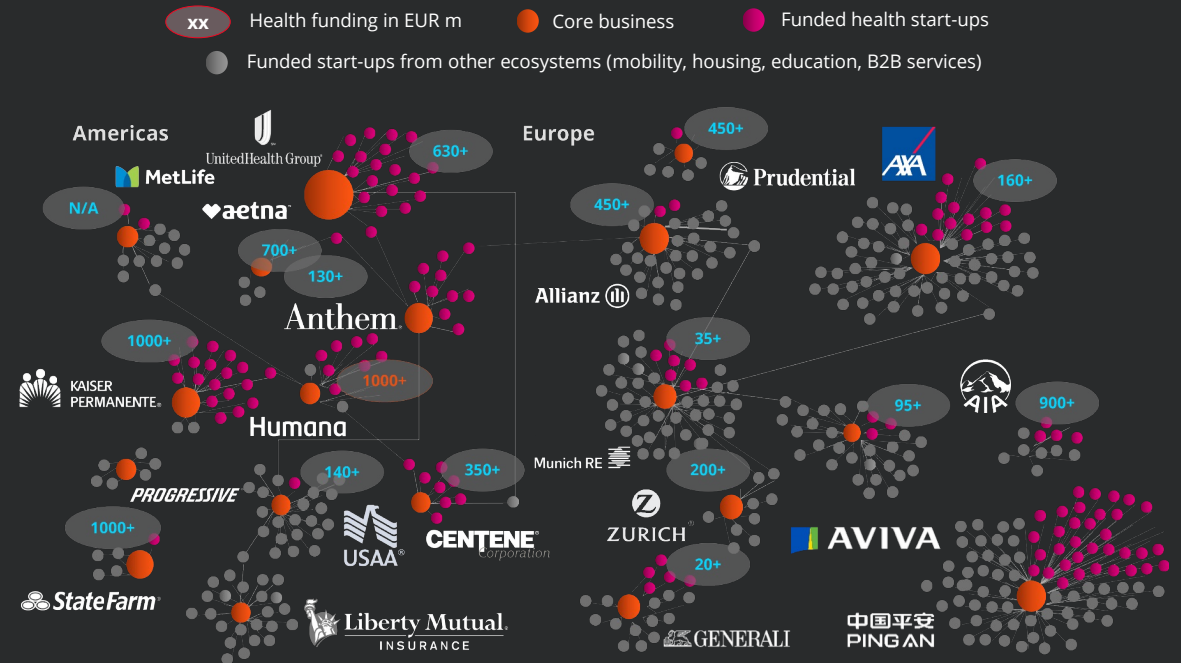
2021 record quarter for insurtech investment activity¹



Number of mentions of ecosystems in leading European insurers and MedTech providers²



Many have invested substantially into health ecosystems²



Sample of 20 large insurers globally have strategically **invested into various ecosystems** over the last few years, with **health being a prominent theme** (32% of investments)

Manifestation of evolving global and local healthcare trends



Pre-COVID

A hospital



A diagnostic lab



A doctor's appointment



COVID-19



TODAY





Review of past performance



Key trends impacting health in 2022 and beyond



COVID-19 | the next frontier



Maximising DHMS member value



ODYSSEY

"A long and eventful voyage marked by many changes of fortune"



RECOVERY

"The process of regaining or returning to a normal state of health"



HOPE

"Expectation that something desired will occur"



DH



Tests conducted

3,181,203



25,597,242

79.5%

Testing rate

44.8%

Unique entities
testing proportion

Positive cases

665,599



3,986,601

18.6%

COVID proportion
of DH lives

614,815

Unique
DH entities

Members admitted

74,527



11.2%

Proportion
admitted

9.7 %

Proportion
readmitted

Deaths

16,035



101,604

2.4%

Case
fatality rate

15.9%

Hospital
mortality rate

Vaccines administered

3,330,132



36,602,354

66.5%

% adult vaccinated

25.3%

Booster uptake



RECOVERY

"The process of regaining or returning to a normal state of health"

A

Clinical recovery

B

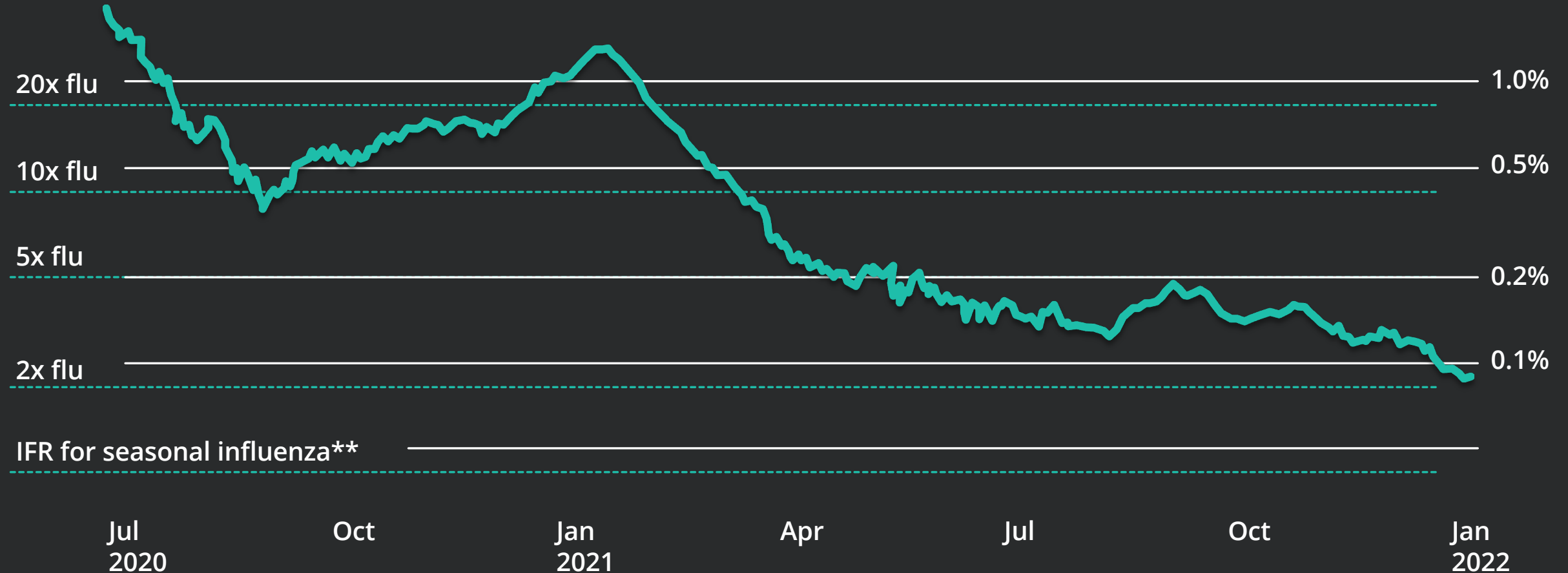
Health system recovery

C

Workplace recovery



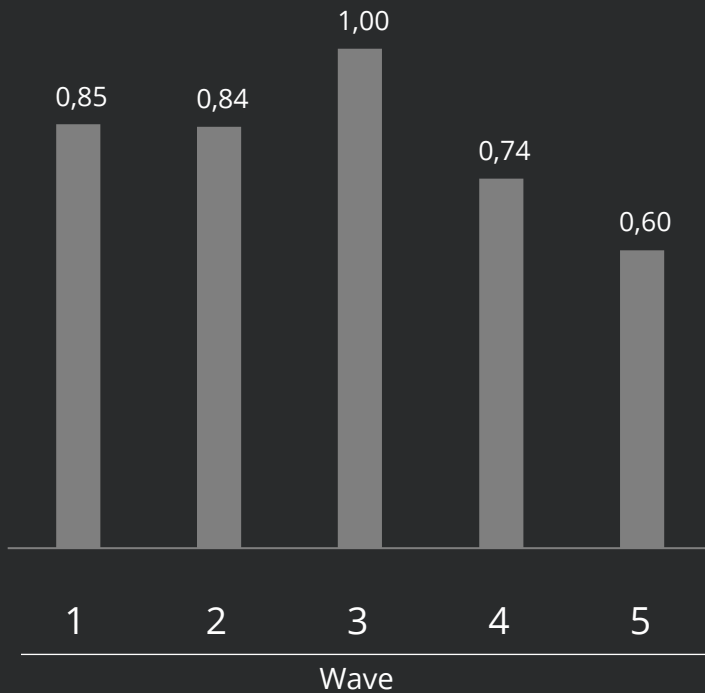
Evolution of Covid-19's infection fatality ratio* in England, relative to seasonal flu



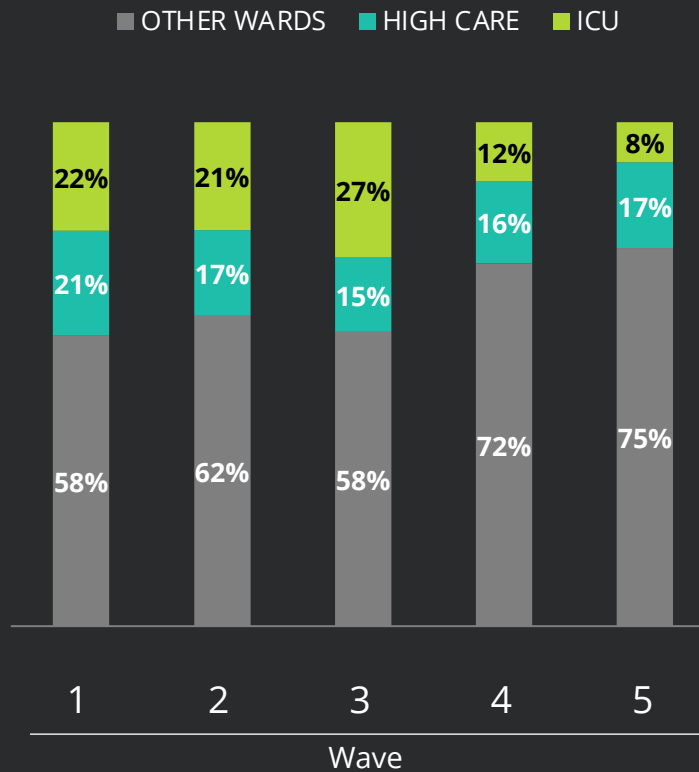


Those who are hospitalised have a lower admission acuity and length of stay relative to Delta

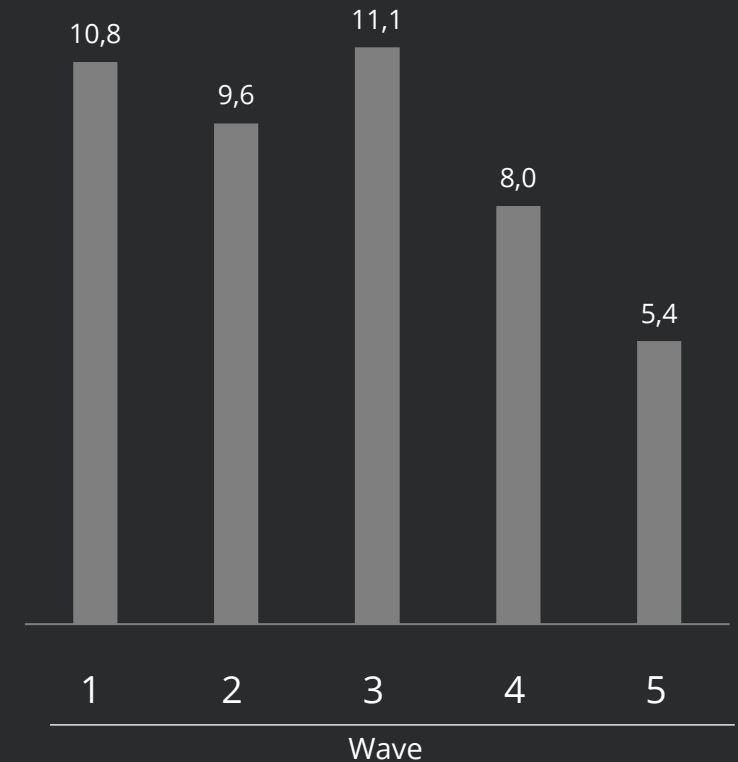
Case mix of adult COVID19 admissions indexed to Delta wave



Proportion of adult COVID19 admissions by ward

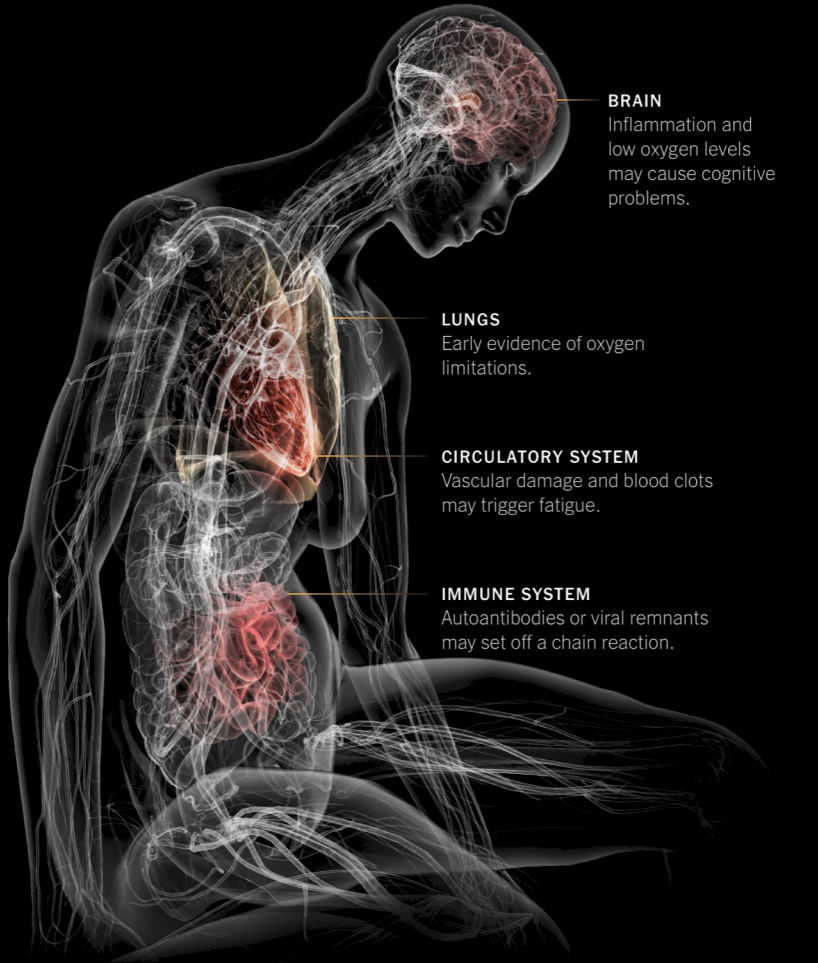


Average length of stay of adult COVID19 admissions



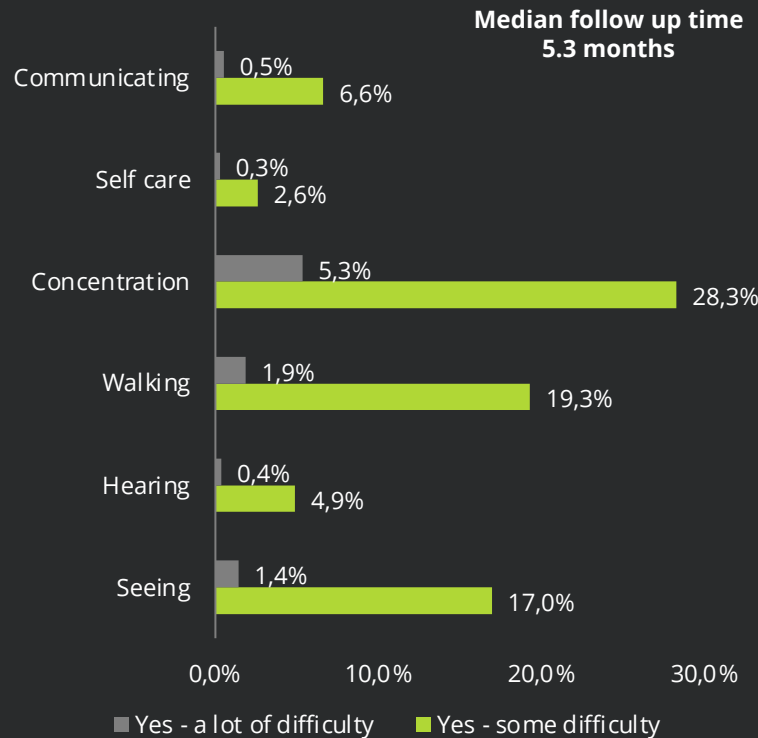
*As at 14 May 2022, with infections and confirmations up until 11 May 2022. Wave length restricted to 27 days from the start of each wave
 Figures for BA4/BA5 are likely to **increase** with further discharge notifications related to the time period

Discovery Health experience: Recovered COVID-19 patients experience protracted and significant disruptions to daily living



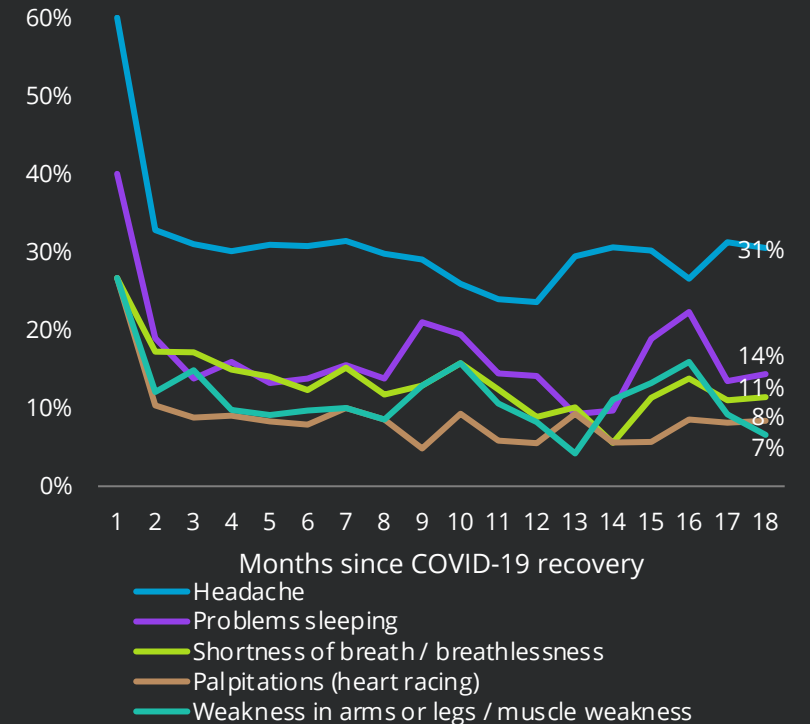
More difficulty in activities of daily living

Change in key activities of daily living for Discovery Health clients reporting no difficulty before COVID-19 infection



Side-effects present up to 18 months post-infection

Most common side effects reported by recovered COVID19 Discovery Health clients

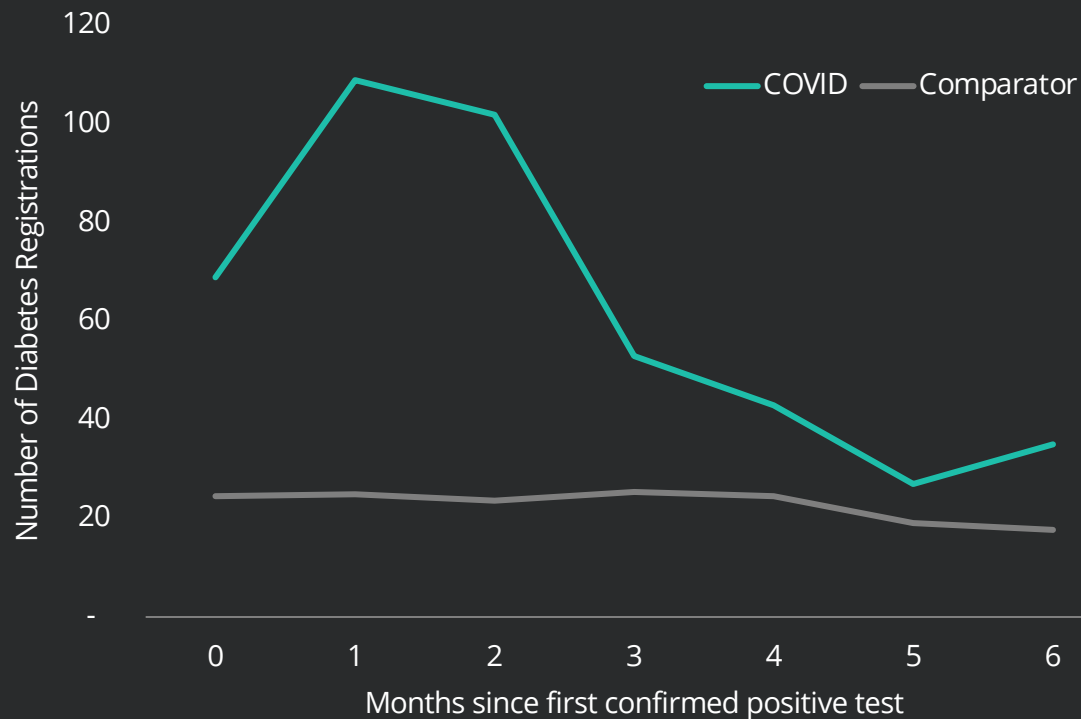


Substantial increased risk of diabetes and cardiovascular conditions as a result of COVID-19 infection



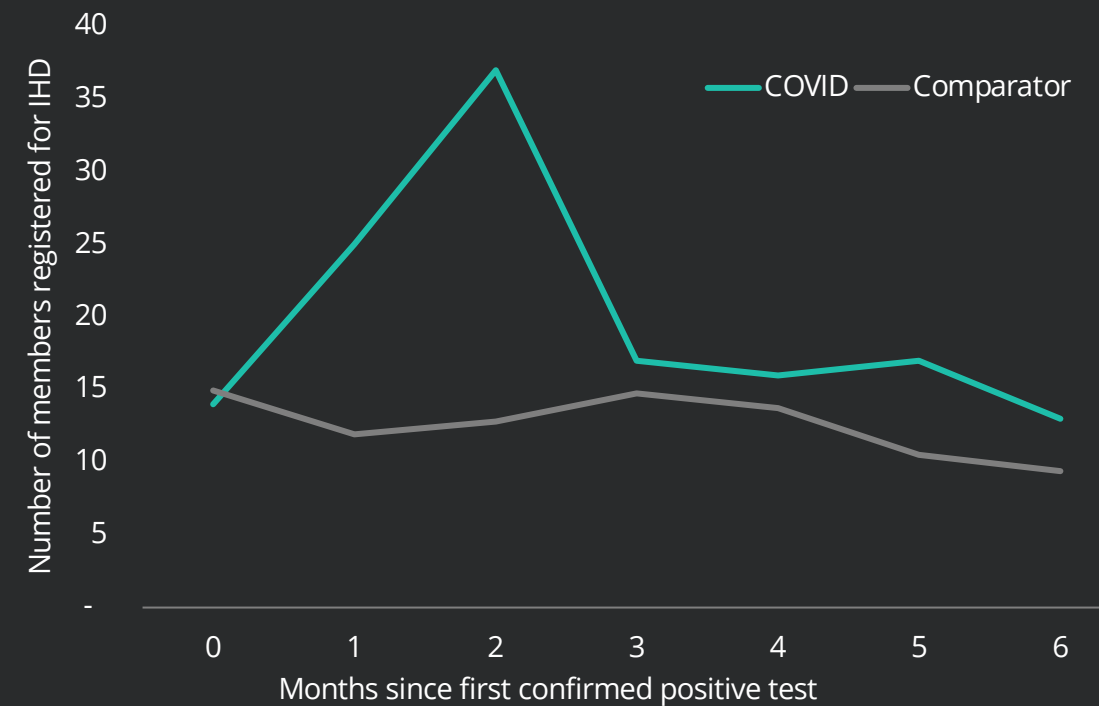
Onset of diabetes mellitus post COVID

2.75x Higher Risk of developing Diabetes
5x higher if hospitalised



Onset of cardiac conditions post COVID

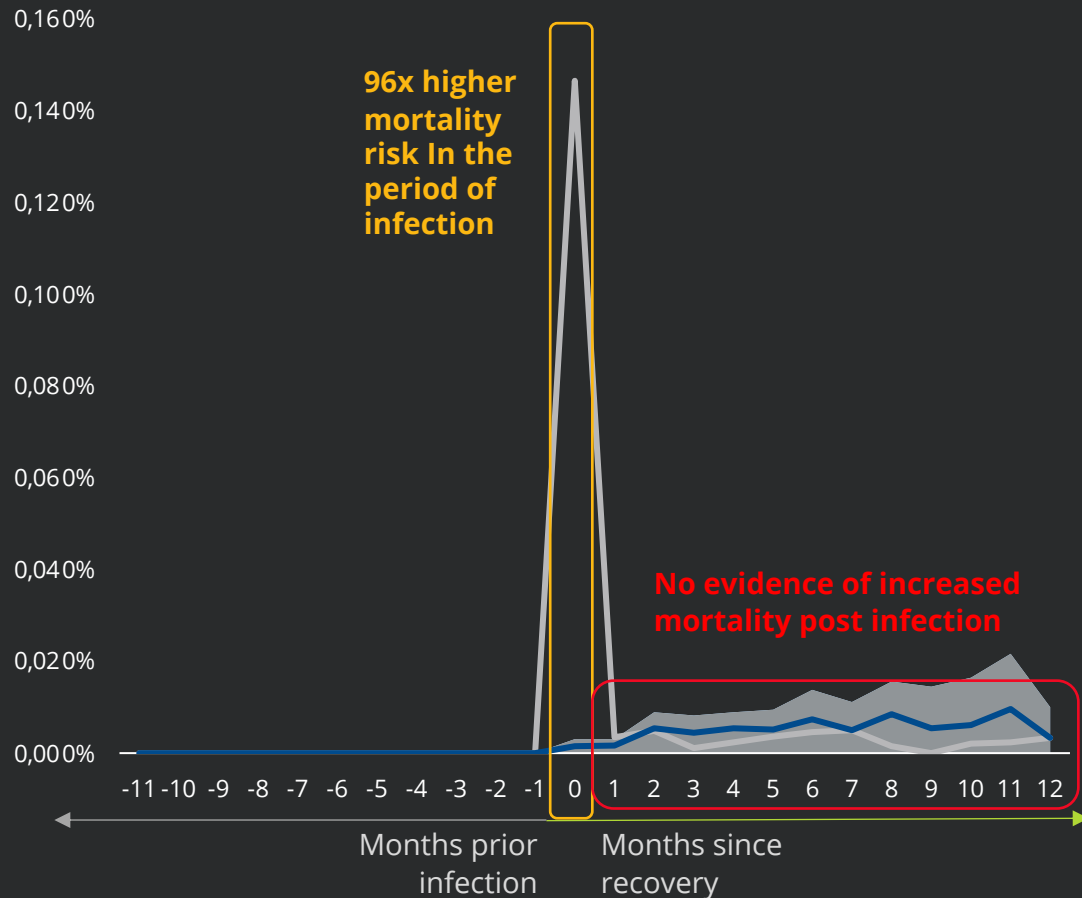
1.5x Higher Risk of developing a Cardiac condition
3.5x higher if hospitalised



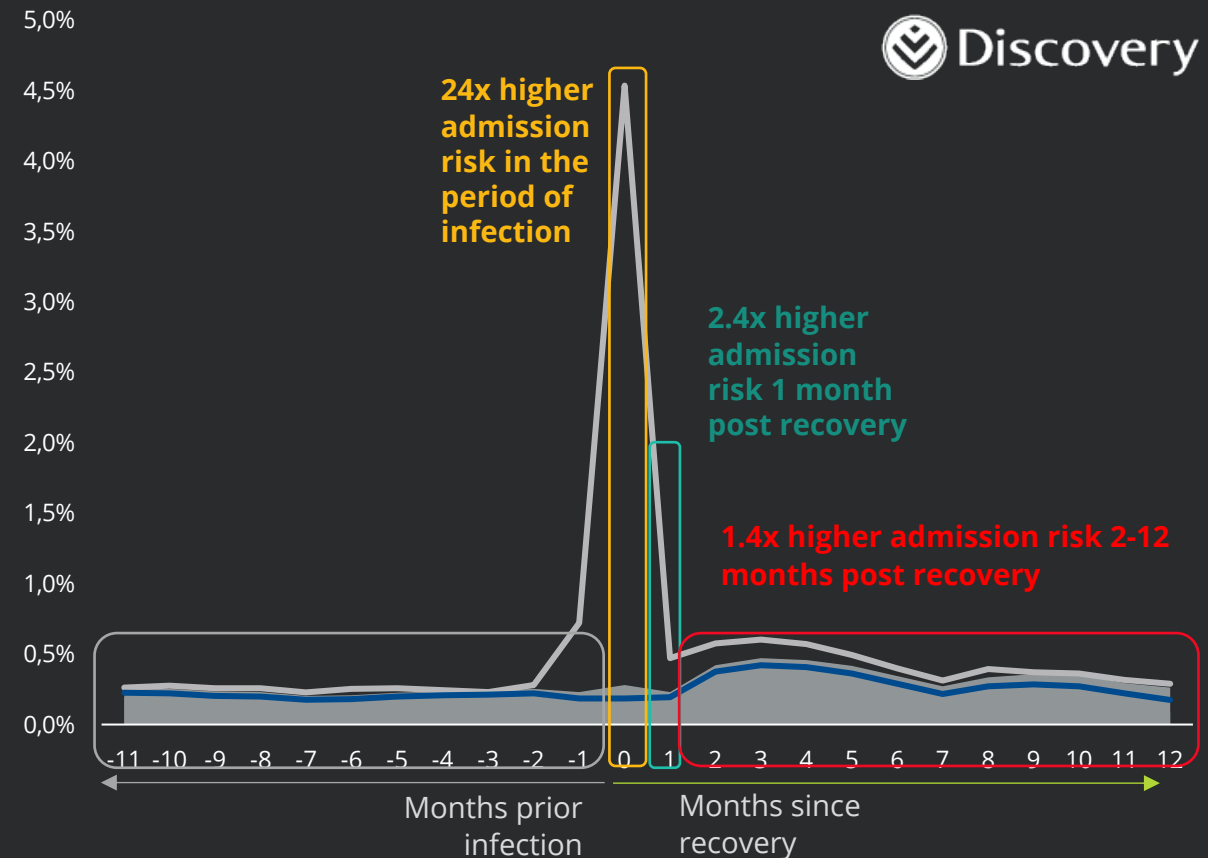
No evidence of increased mortality in the post-infection period. However, 1,4-times higher risk of hospital admission in the post-infection period



Mortality risk



Admission risk



1. Source: Discovery Health Insights Initial analysis. To be submitted for peer review and publication

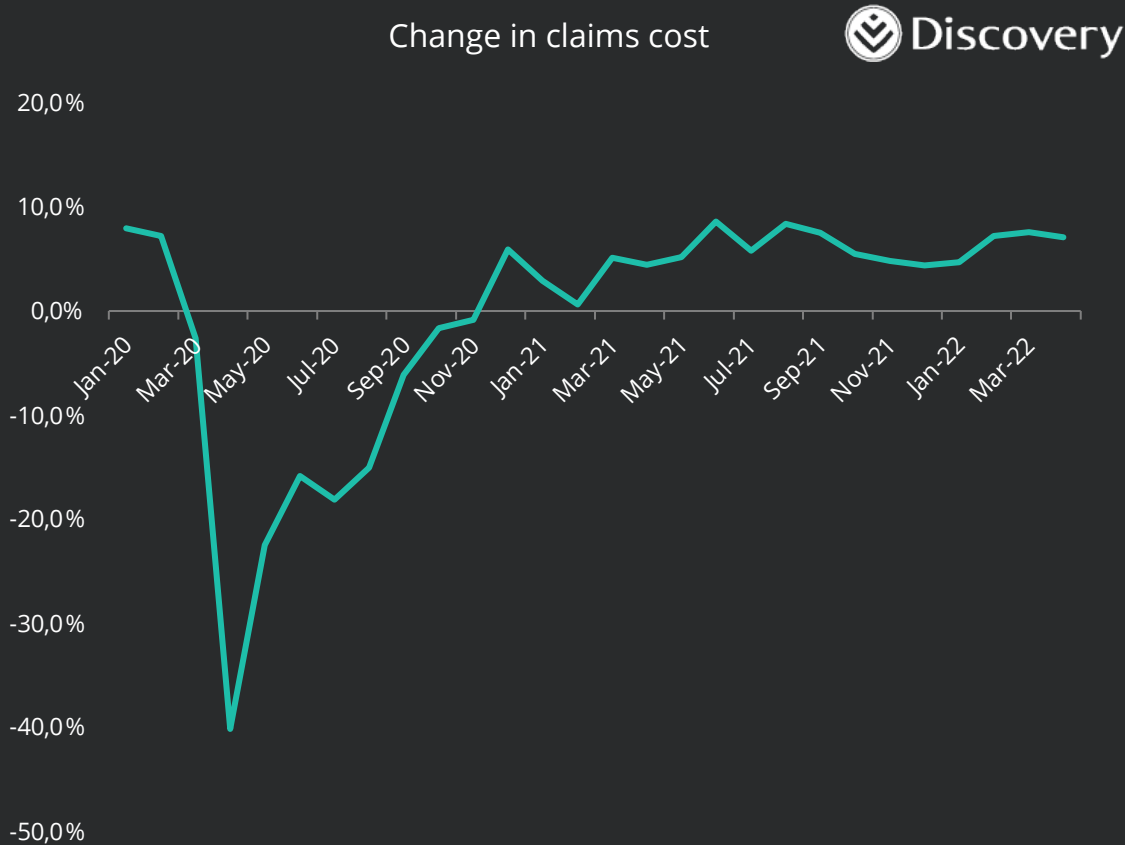
2. Assessed using COVID19 recovered clients randomly matched to individuals with no infection on recovery date, using the following features: age, sex, co-morbidity count, vaccination status, region, disease burden index, benefit option, prior flu vaccinations, oncology and chronic renal failure status. Population and matched controls are censored if either twin experiences scheme withdrawal or COVID19 infection.

Recovery date based on the latter of 10 days post PCR collection date or COVID19 admission discharge date.

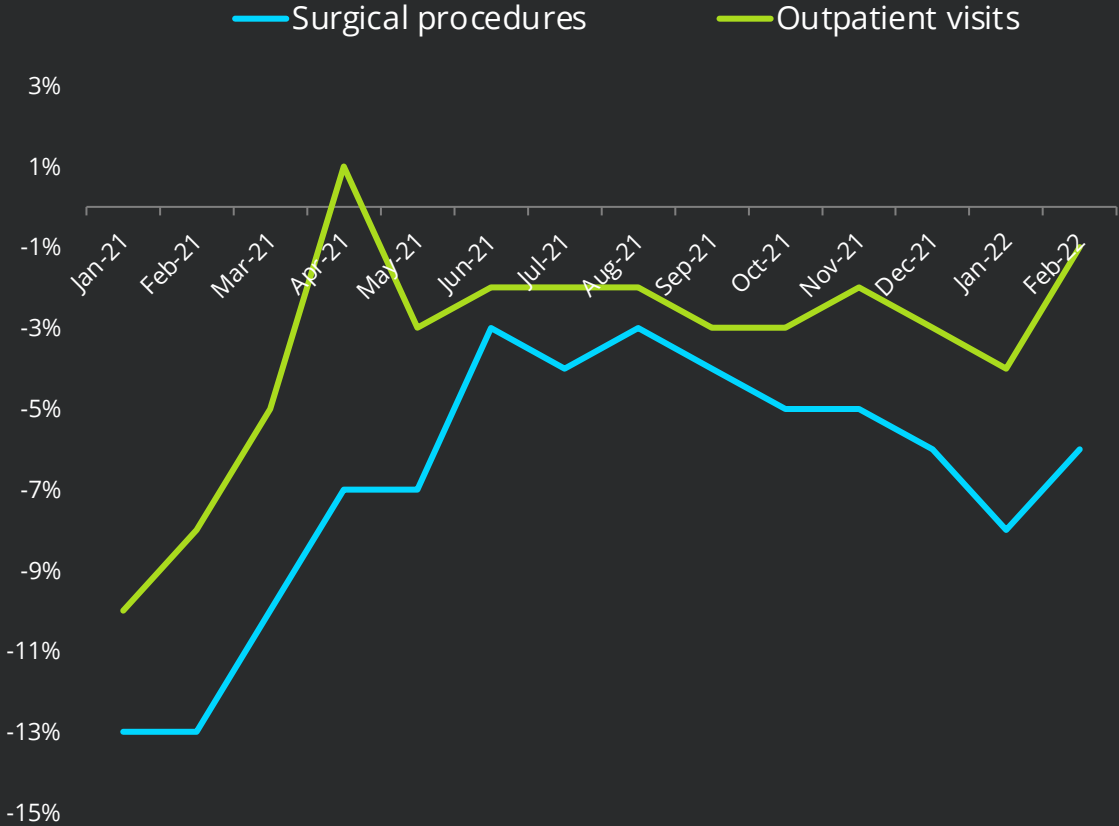
40% reduction in health insurance claims at the peak of South Africa's lockdown in Mar | Apr 2020; utilisation and claims beginning to return to 2019 levels



Discovery Health annualised change in claims costs vs 2019



US hospital utilisation vs 2019 utilisation





Review of past performance



Key trends impacting health in 2022 and beyond

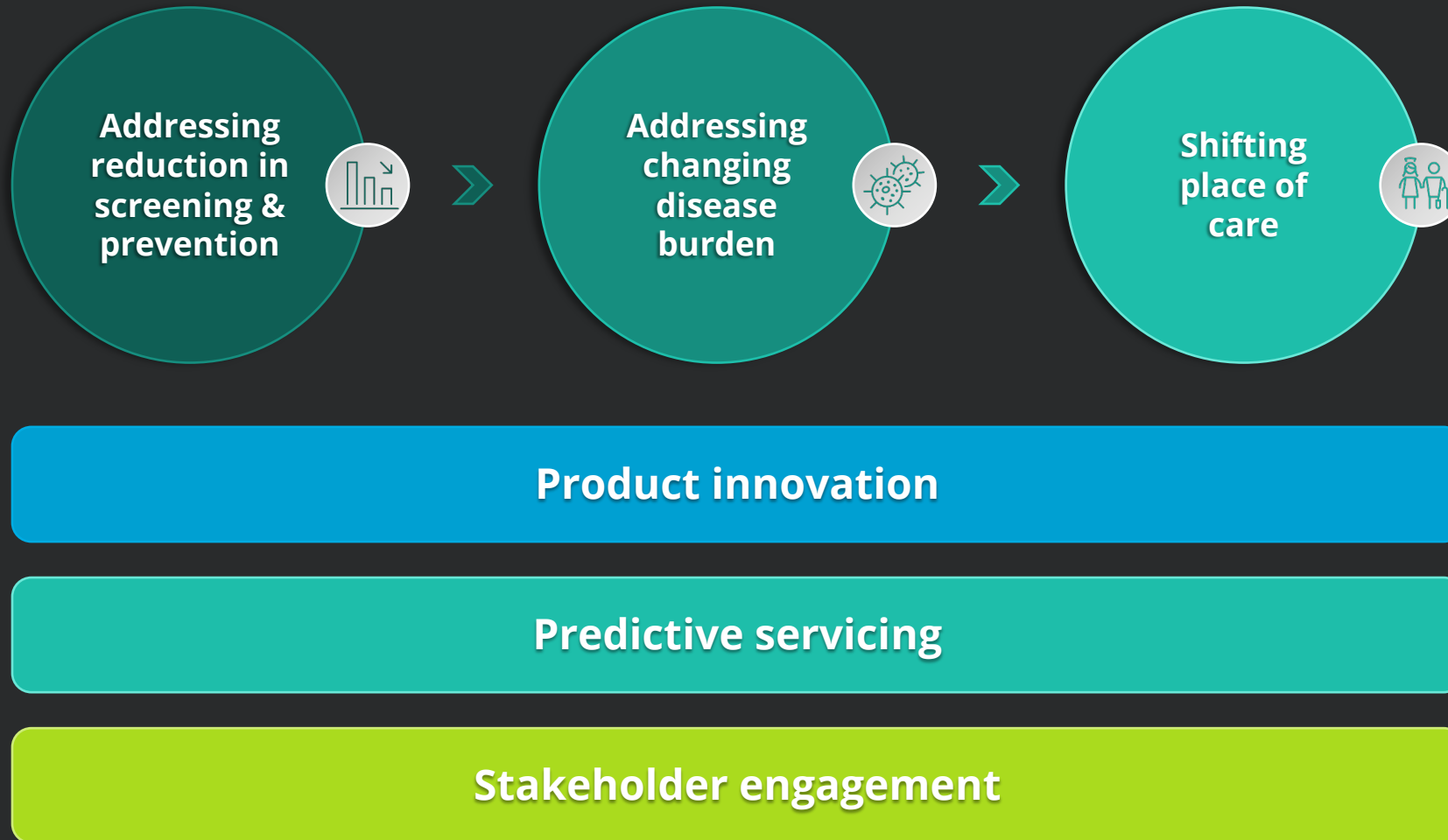


COVID-19 | the next frontier



Maximising DHMS member value

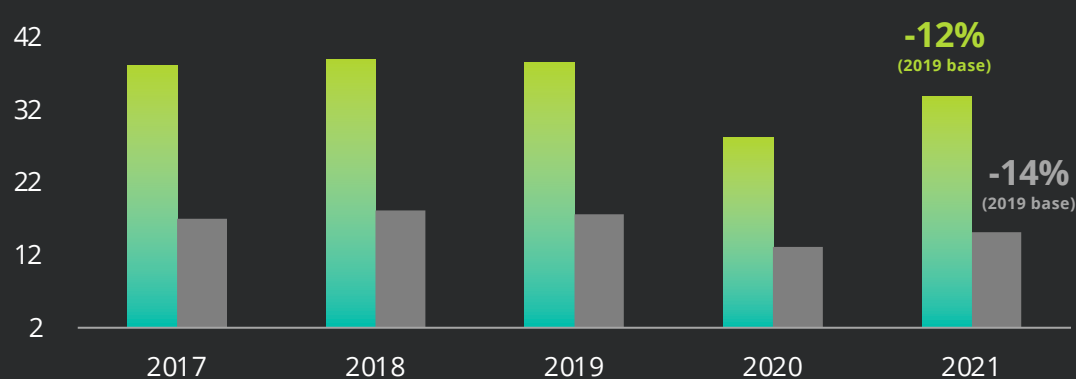
Maximising DHMS member value



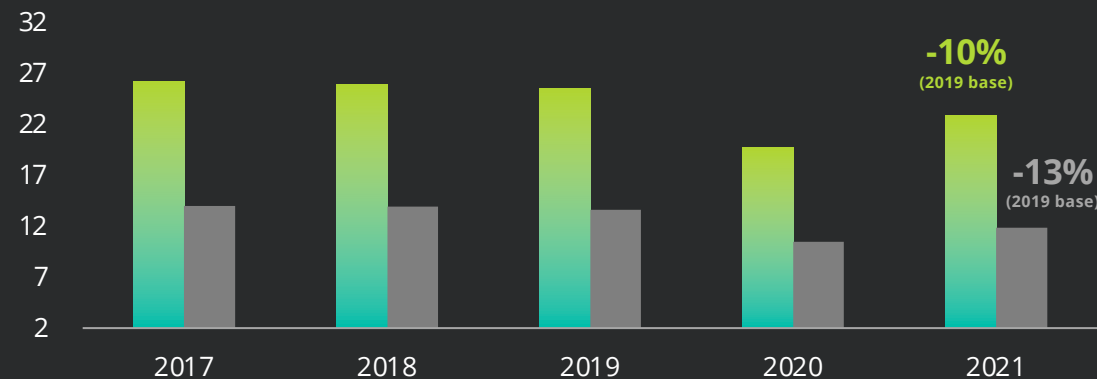
Reduction in prevention and screening | less so for Vitality members



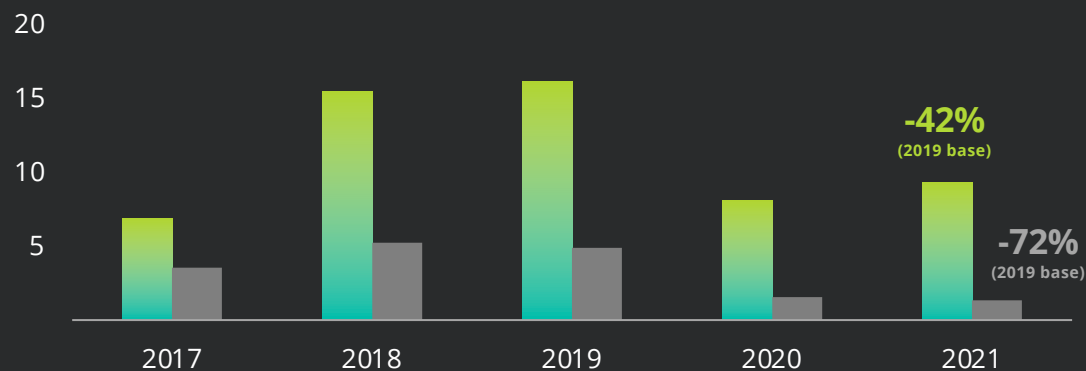
Mammograms per 1,000 female 50+ lives



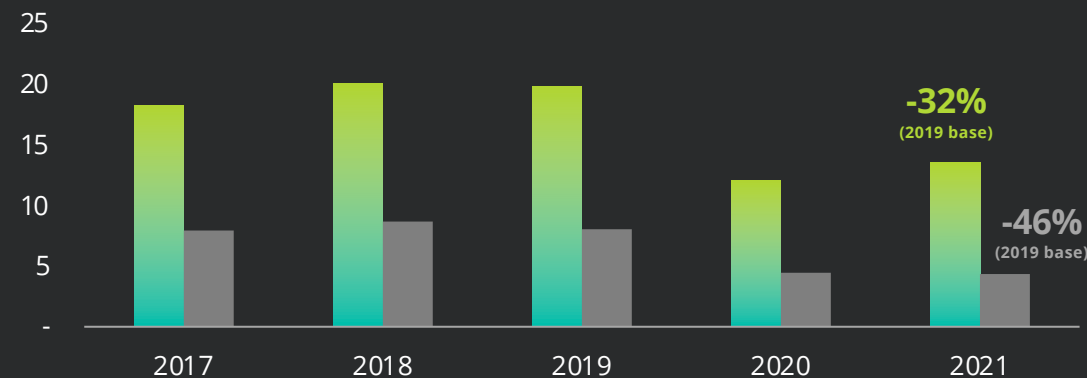
Pap smears per 1,000 female 25+ lives



Wellness events per 1,000 lives



HIV screenings per 1,000 lives

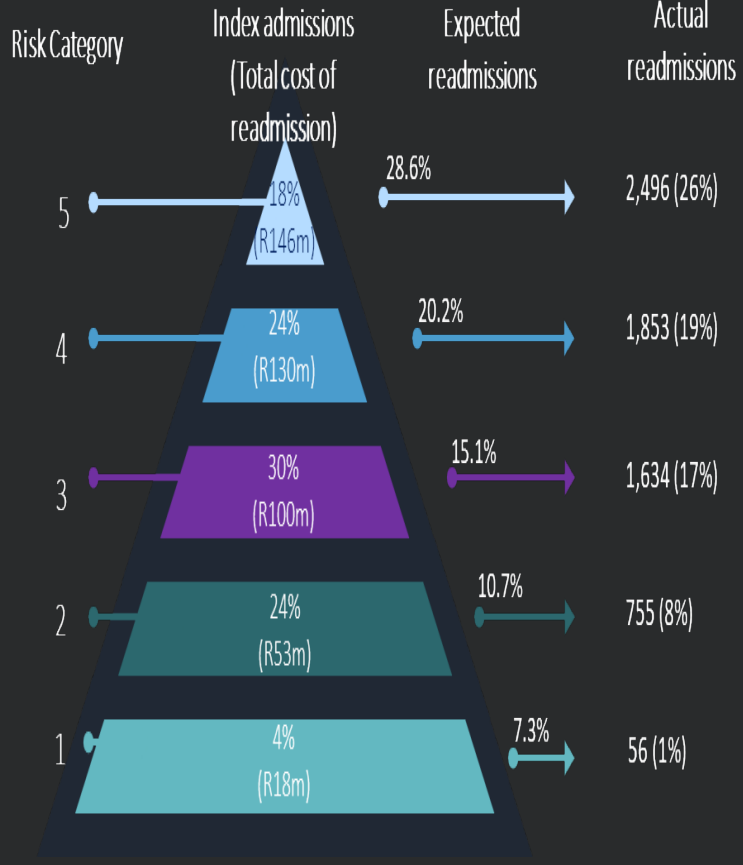
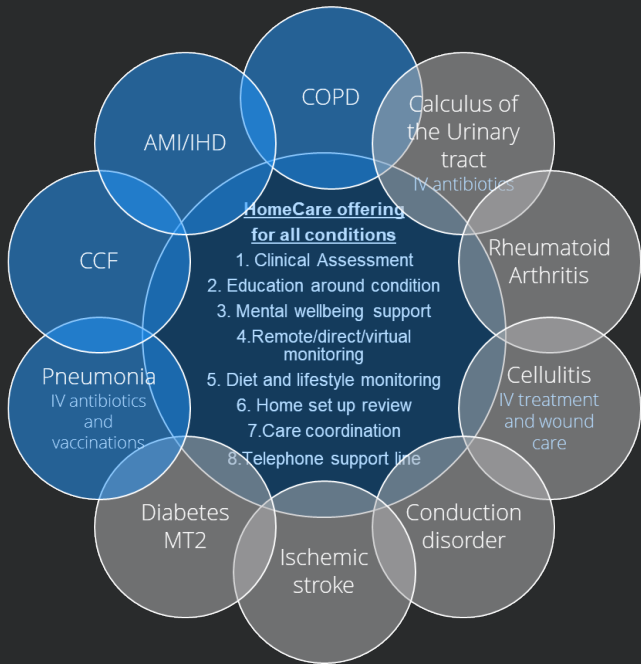


■ Vitality members
 ■ Non-Vitality members

Hospital re-admissions prevention using predictive analytics

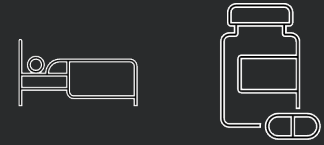


| Ten identified conditions | Predictive model stratifies member risk of re-admission | In hospital case management | Out of hospital suite of interventions |
|---------------------------|---|-----------------------------|--|
|---------------------------|---|-----------------------------|--|

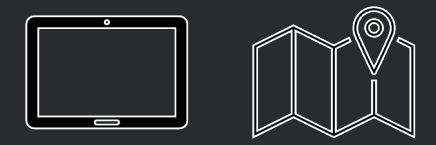


Benefit applies to risk categories 4 & 5 only

- Sub-acute facilitation
- Mental Health review
- Care Co-ordination program eligibility
- Bed-side medicine reconciliation



- Post-discharge phone call
- Follow-up appointment with Specialist / Treating doctor
- HomeCare offering
 - 1 x physical home visit and
 - 3 x virtual home team consultations



Sophistication in identification and monitoring of members living with diabetes



Proactive AI screening for diabetic retinopathy

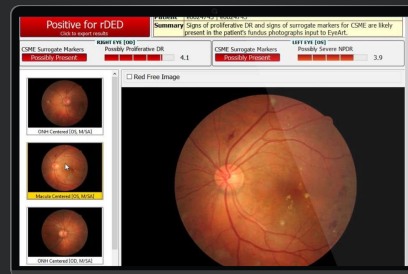
Better outcomes for members with diabetes through shared value model of care

1st

to launch EyeArt AI system in South Africa



Results in 60 seconds



Annual screening benefit to ensure **early detection and triage** for members flagged at risk diabetic retinopathy

Provider paid incentive for **'in range'** or **improved** glucose test results over time



Improved patient **healthcare outcomes**



17%

HbA1C testing



10%

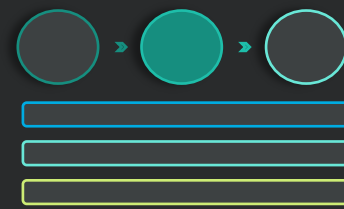
'in range' patients



20%

provider income due to improved patient outcomes

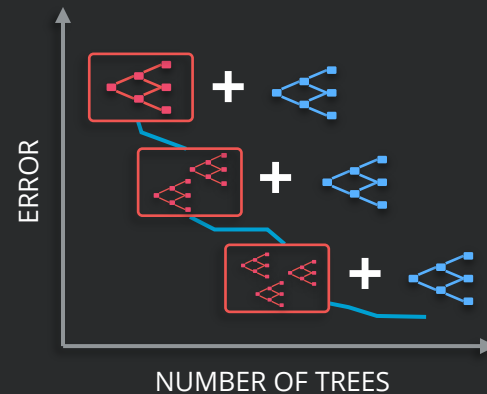
Validity cancer score | the future of early diagnosis



Cancer risk score to enhance the mechanism for behaviour change

Target members at higher risk for specific cancers with more regular screening

- 1 Models to predict each member's:
 - Cancer **frequency**
 - Cancer **severity**

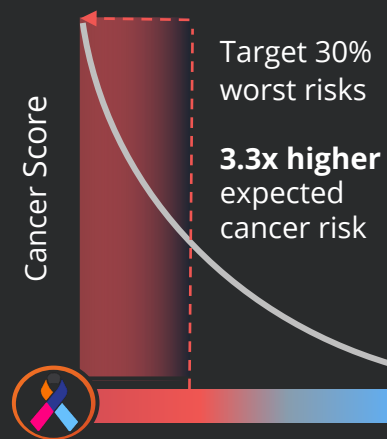


- 2 Compute the cancer risk score

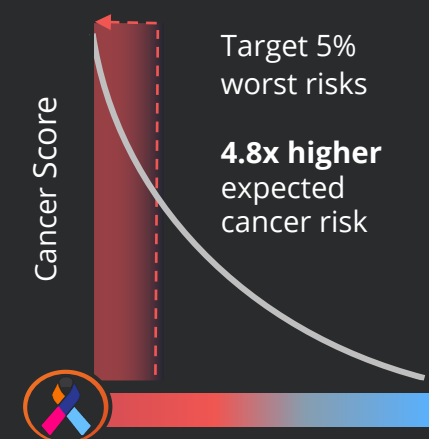
- 3 Assign each member a **validity cancer score** allowing for flexible calibration



BREAST CANCER MODEL

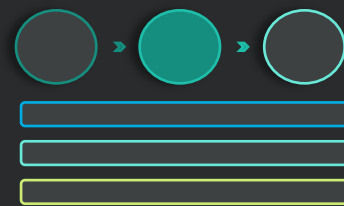


COLON CANCER MODEL



Allows for targeted screening campaigns with more predictive outcomes

Well developed screening programmes positively impact on stage at diagnosis



Establish screening programmes for breast and cervical cancers lead to higher screening rates and earlier diagnosis

Colorectal screening less established, leading to later stage diagnosis

Breast cancer screening:

Proportion of members screening (50 – 74yo)



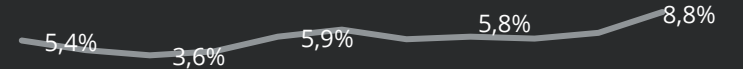
Cervical cancer screening:

Proportion of members screening



Colorectal cancer screening:

Proportion of members screening (50 yo +)

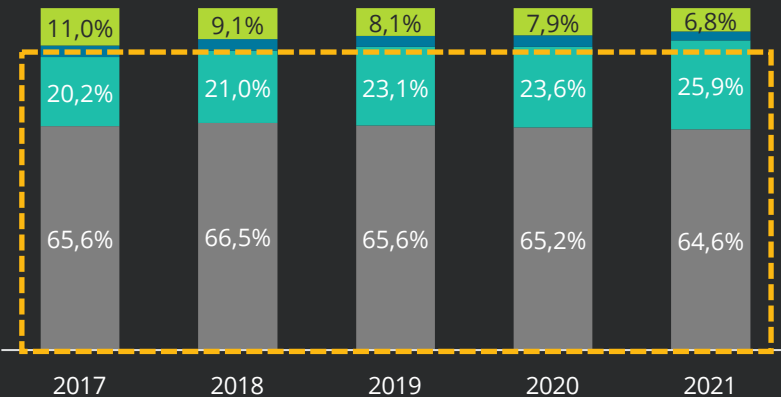


2013 2014 2015 2016 2017 2018 2019 2020 2021

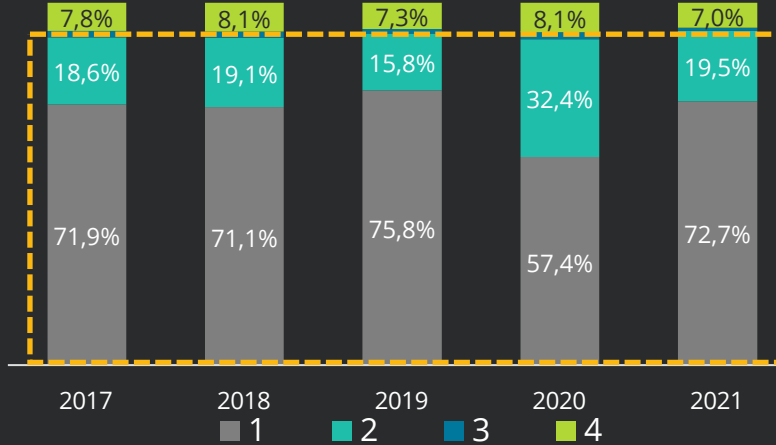
2013 2014 2015 2016 2017 2018 2019 2020 2021

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

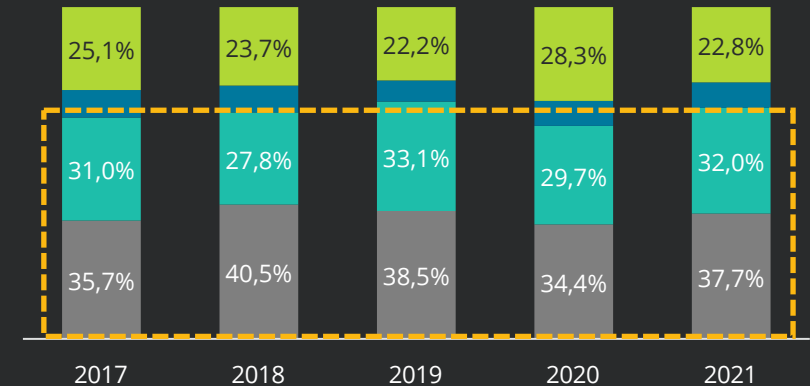
Stage at time of diagnosis



Stage at time of diagnosis



Stage at time of diagnosis



■ 1 ■ 2 ■ 3 ■ 4

Value based care interventions for improved outcomes



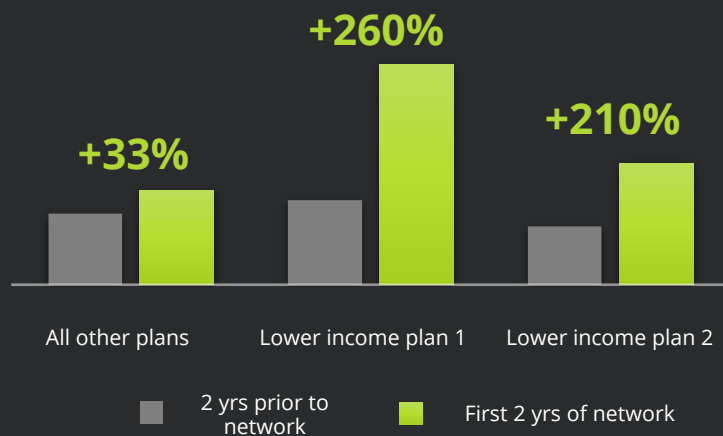
Specialist (Arthroplasty)

Chronic Disease (Diabetes, CMO & GPs)

Primary Care (Capitation model & Premier Plus)

Arthroplasty

Change in arthroplasty admission rate pre- and post- network

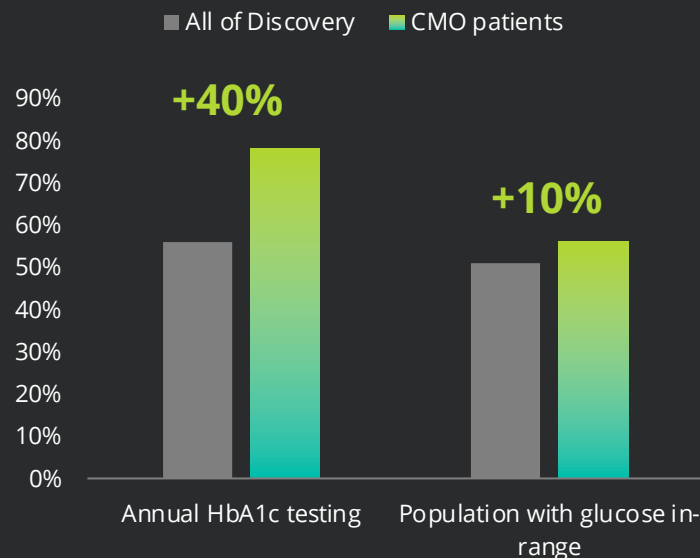


~7,000 patients benefiting
from the network per year

18% reduction in 30-day all cause readmission

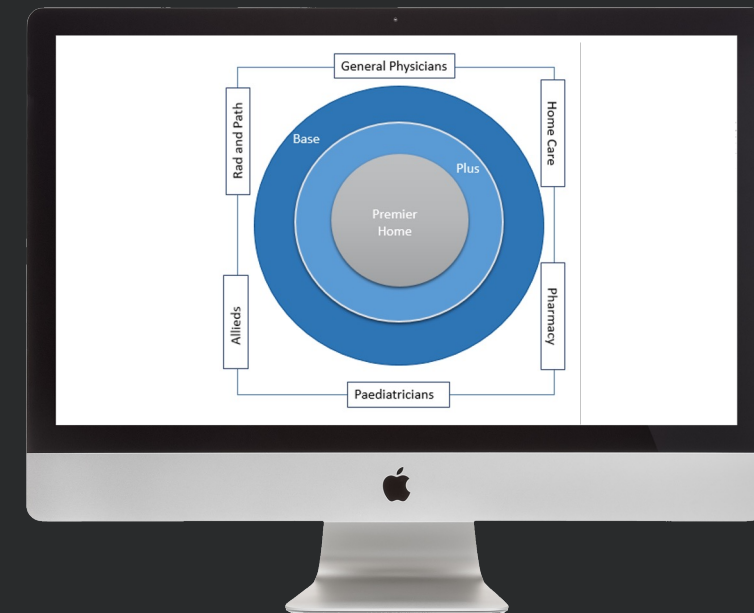
Care Management Organisation

Type 1 & 2 Diabetes model



~16,500 patients benefiting
from the network per year

Premier Plus



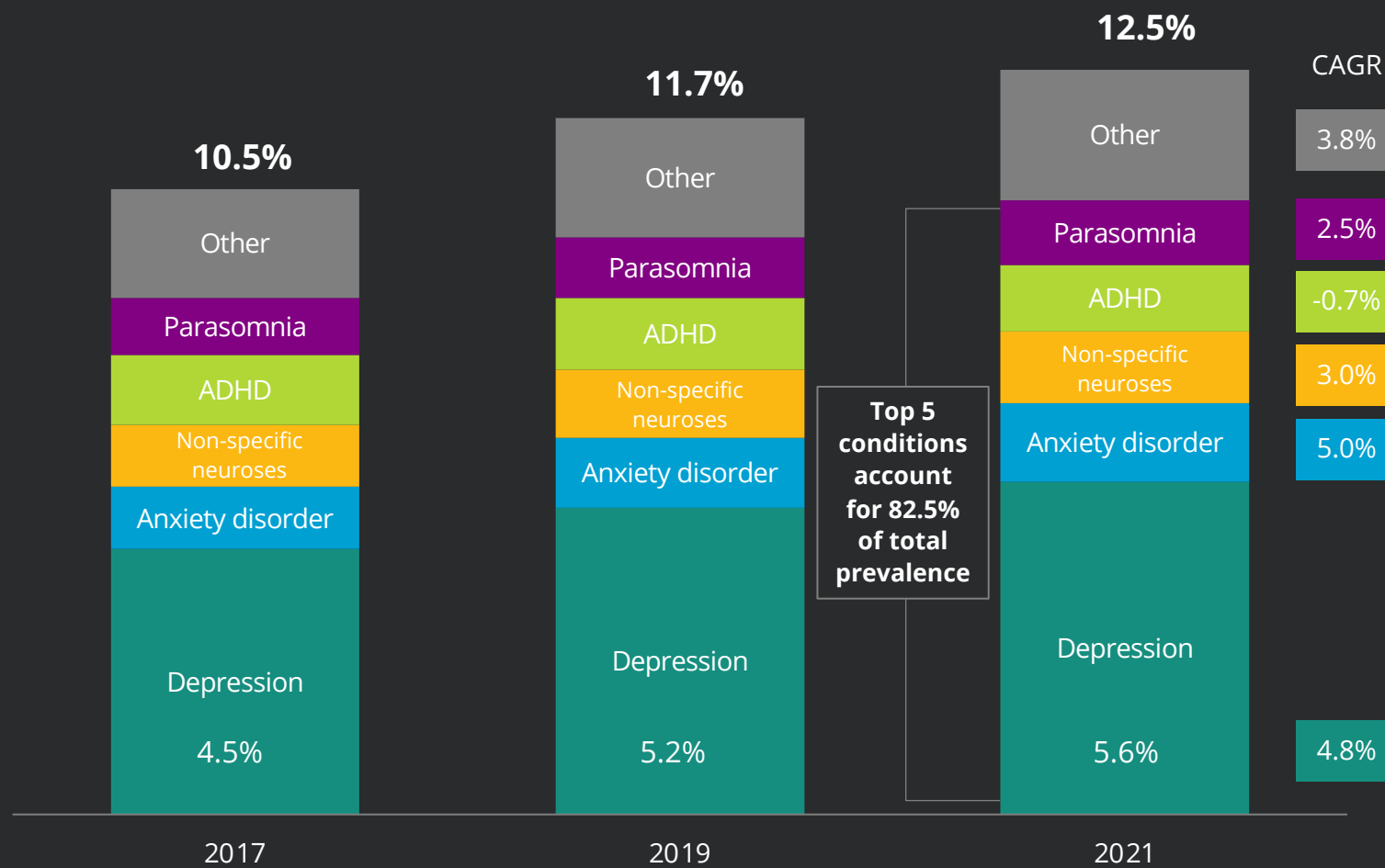
For every R1 spent
on new VBM incentives,
R3 is saved in primary care costs
compared to historic risk adjusted experience



Mental Health | Depression is the primary condition driving the increase in mental health prevalence

and contributed 10.7% to the overall increase in prevalence of 19.1% (2017-2021)

Mental Health Condition Split*



Top conditions increasing in prevalence by Contribution to Increase (CTI) and CAGR (2017 - 2021)

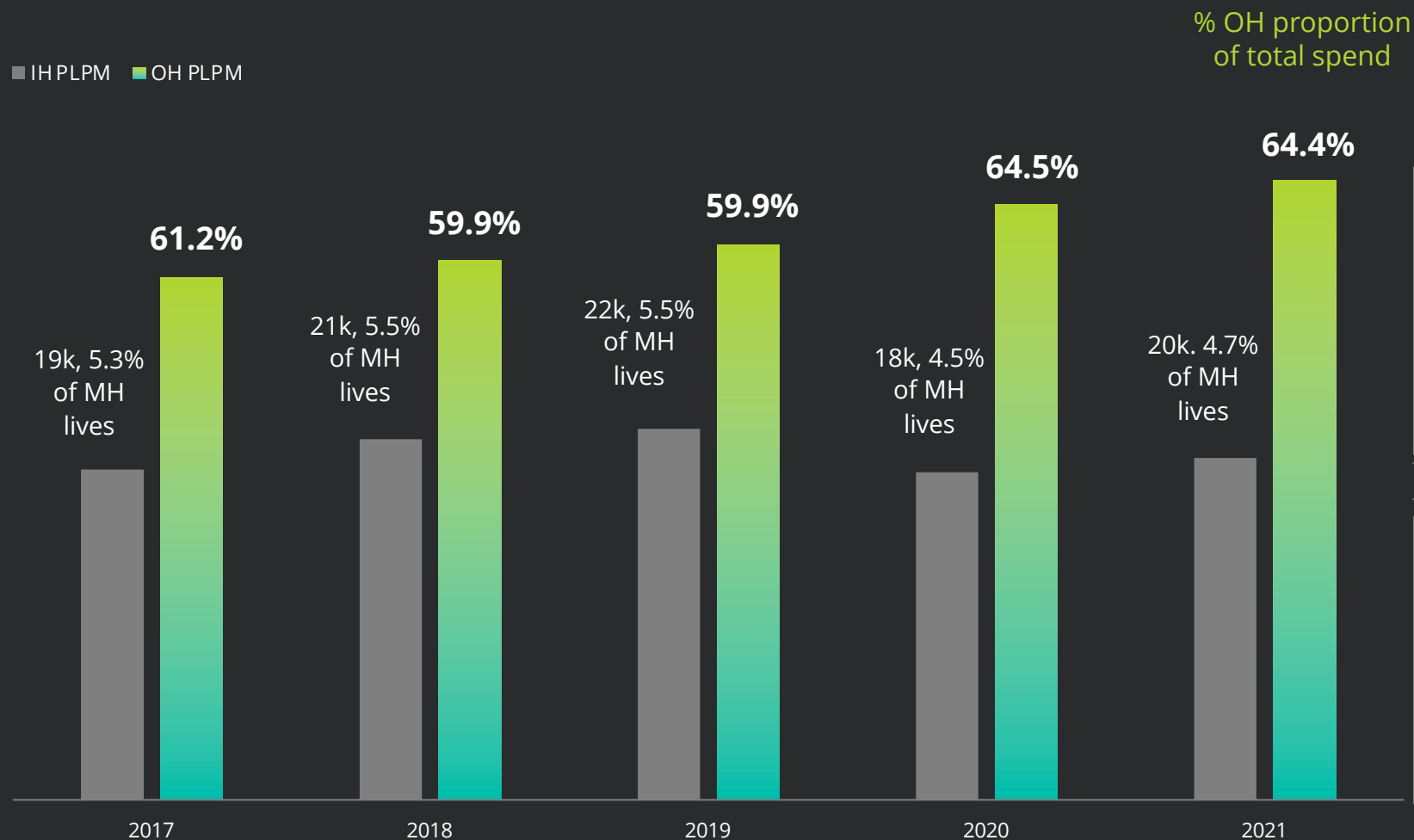
| Condition | CAGR | CTI in Prevalence |
|------------------------------|------|-------------------|
| Depression | 4.8% | 10.7% |
| Anxiety disorder | 5.0% | 2.7% |
| Non-specific neuroses | 3.0% | 1.5% |
| Bipolar Mood Disorder | 3.6% | 1.3% |
| Parasomnia or sleep disorder | 2.5% | 1.2% |

* The prevalence split is based on first psychiatric condition present in the year. Some members will have multiple mental health conditions but are counted once in this analysis.



Mental Health | The setting of care is shifting away from in-patient care

With a higher proportion of mental health care sought out of hospital and virtual care is on the increase



Key changes that may have influenced the setting of care

- 1 COVID
- 2 Enhanced OH benefits
- 3 ↑ uptake of OH programmes
- 4 Change in overall case mix

- Psychologists were the main contributor to the increase in YoY OH PLPM costs (2020-2021)
- Proportion **virtual / teleconsult** mental health visits has increased by **29%** from 2020 to 2021 but only accounts for 1.1% of visits.

Mental Health | outpatient care was made more accessible through a structured primary care programme

Mental Health Care Programme



Primary Care Programme



Members access the programme through the Premier Plus GP network **and psychologist network**



Risk funded basket of care:

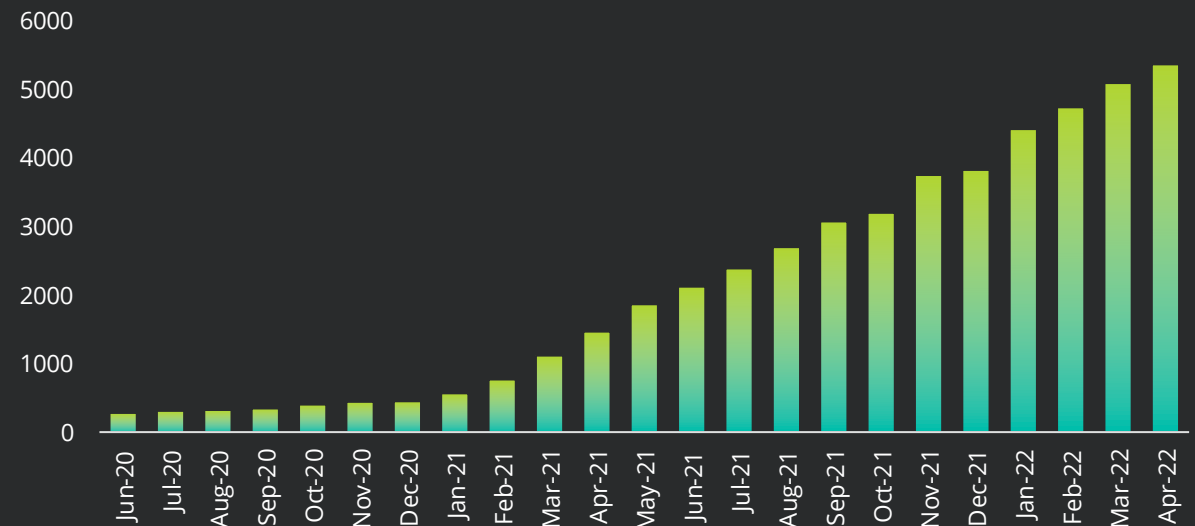
- Extended consultation + 2 additional GP consults
- Anti-depressants (formulary)
- **Additional individual and group psychotherapy**



Can be extended for a further 6 months based on follow-up PHQ-9 score

Outcomes

Enrolments increased by 17x



6.7% reduction in total costs

(R1,9m saving) within first 6 months

Launch of KeyCare Start Regional Option

A regional EDO – underpinned by Integrated Care Delivery model and easily accessible primary healthcare



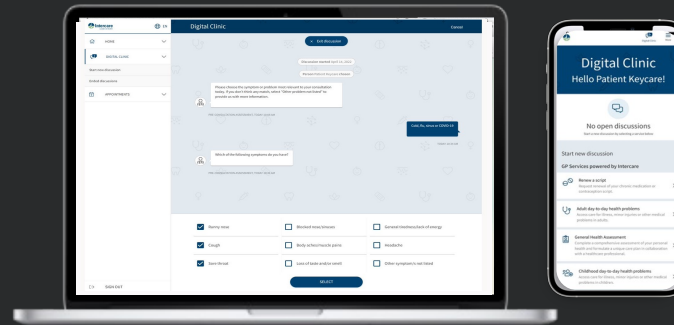
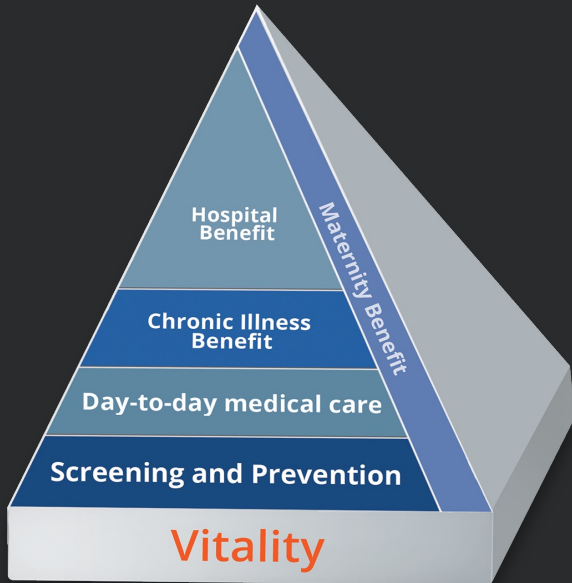
Integrated Care Model

Easy Access to Care through Online Practice

Most Affordable Care



MEDICLINIC

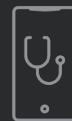


Leveraging the digital tools created by Intercare, members will always have access to primary healthcare through the Online Practice

Online Practices With Physical kiosk presence



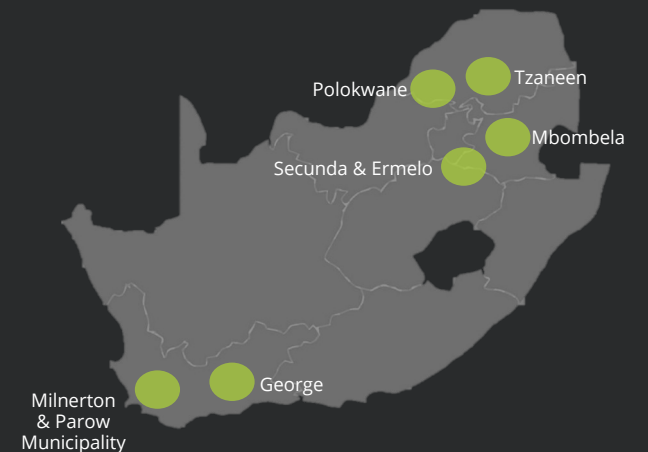
Online Symptom Assessment



Virtual Consultation



Face to Face Consultation



Most affordable medical aid option
for members residing in the EDO regions

Shariah Compliant Arrangement

DHMS offers the first Shariah compliant Medical Scheme Arrangement, available on all health plans



Compliance with Shari'ah principles

In accordance with all guiding principles, the Discovery Health Medical Scheme Shari'ah Compliant Arrangement was designed end-to-end in line with Shari'ah principles, including:

- In line with the principle of Shari'ah Law regarding interest, there will be no interest earned or paid on the Shari'ah Compliant Arrangement. Funds will be invested in a compliant manner thereby allowing members the opportunity to earn a profit on MSA balances.
- Participating members gain the assurance that their contributions, and balances remaining after the settlement of claims and other relevant expenditure will be invested in Shari'ah compliant investments.

| | |
|---|---|
| Model is compliant and is based on Takaful principles | ✓ |
| Process flow happens in an acceptable manner | ✓ |
| No interest earned or paid at any stage | ✓ |
| No ambiguity in contracts | ✓ |
| Members' interests are protected | ✓ |
| Investments are managed in Shari'ah Compliant manner | ✓ |

2020 : 1591
DHMS Members
opted in over 3
weeks

≈ **175 000**
potential
members on
DHMS*

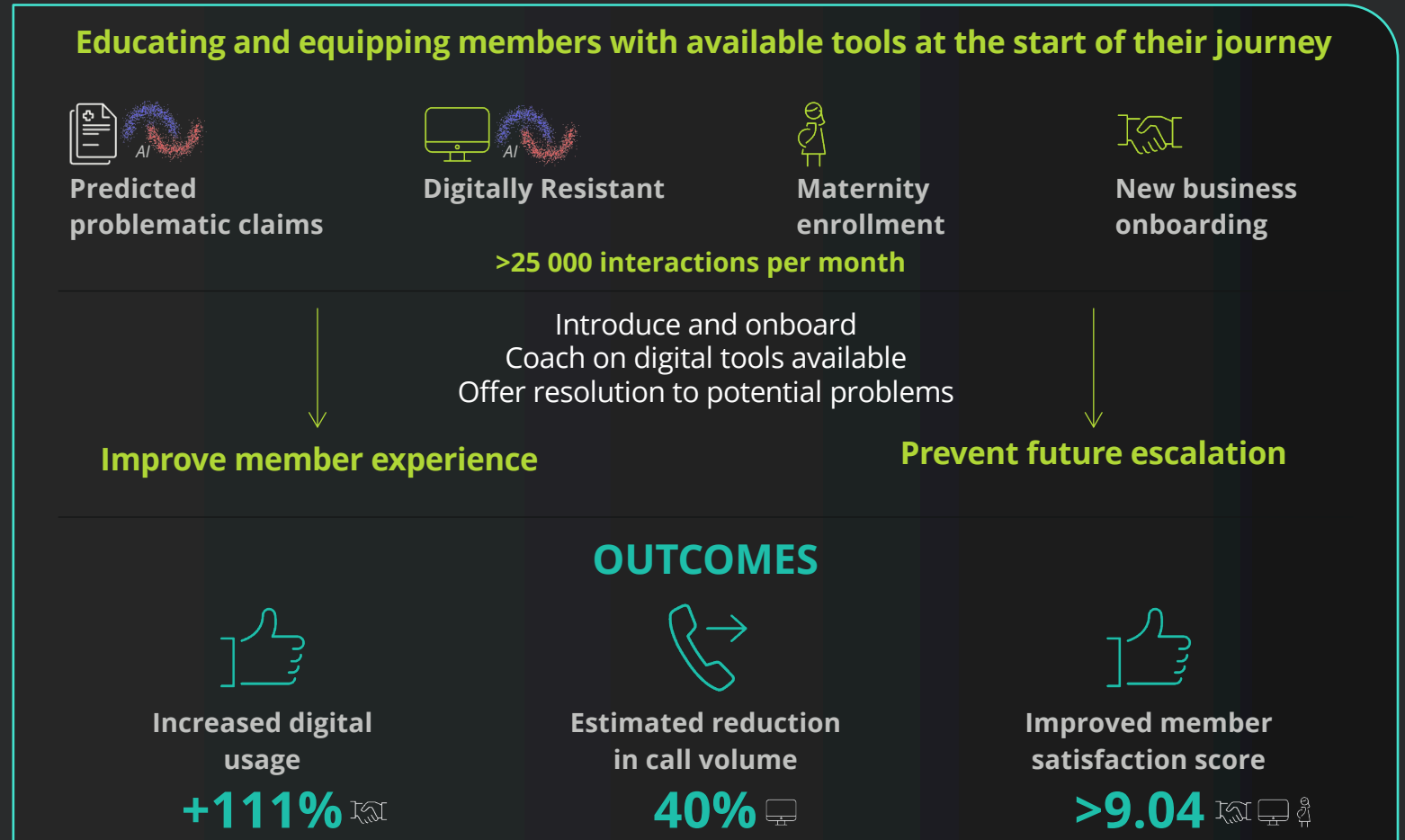
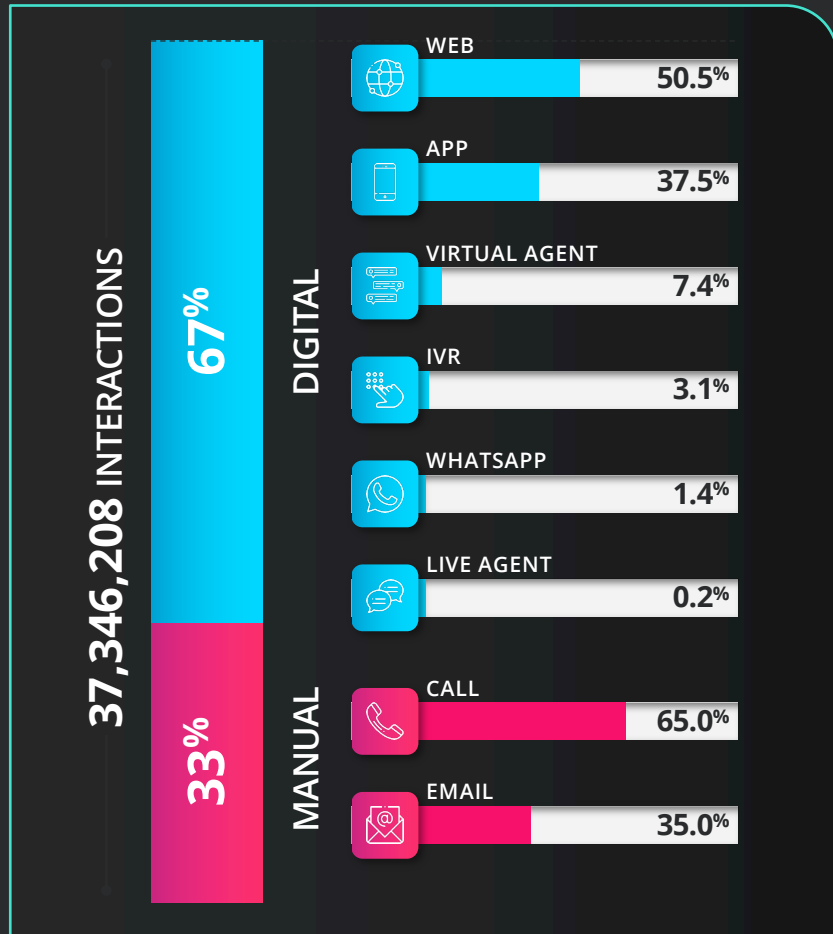
*This is an approximation based on internal DHMS data

New digital tools to meet the shift in digital servicing demands



Engagement channels (2021)

Proactive service initiative



Enhanced communication platforms to support a seamless digital servicing experience

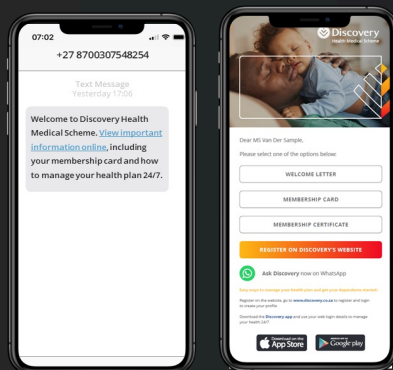


Enhancements to member communication platforms

Simpler engagements for brokers

Smart View SMS

Comprehensive, fully digital welcome pack available to clients for immediate activation



Ask Discovery

Get immediate answers from our digital service bot



~5,000
Chats per month

WHATSAPP REGISTRATIONS

392,000
REGISTERED USERS

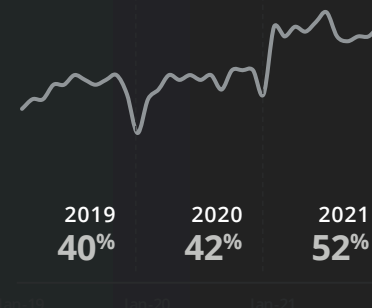


~12,000 Digital member packs
+50,000 Interactions

Enhanced New Business Online Journey

DIGITAL UPTAKE

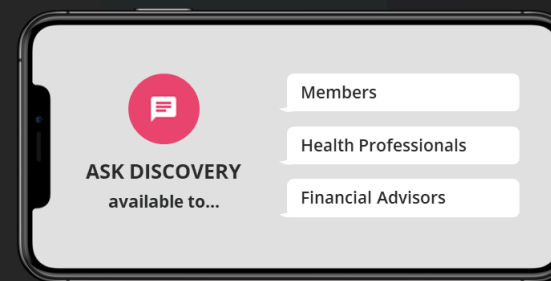
Online Activation
Prepopulated content
Live changes



PERCEPTION



Virtual agent for broker interactions



2m Interactions per year

1m Unique users per year

Exceptional service scores recorded across stakeholders

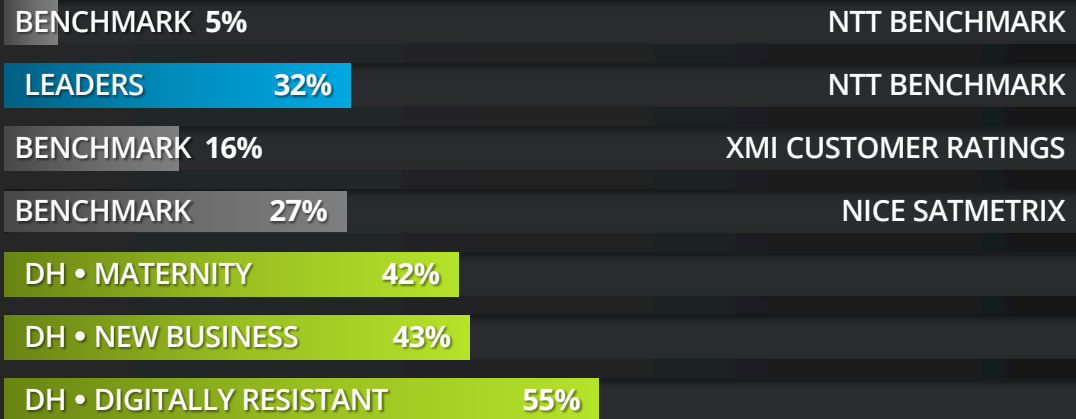


Global Benchmarking (2021)

FIRST CALL RESOLUTION (FCR)



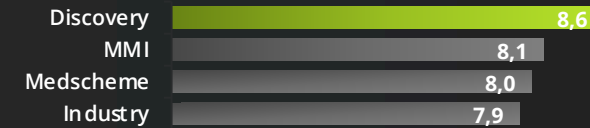
NET PROMOTER SCORE (NPS)



Industry Recognition and Awards

AS RATED BY OUR CUSTOMERS

EMPLOYER RATING



PROVIDER RATING



BROKER RATING



AWARDED TO DISCOVERY

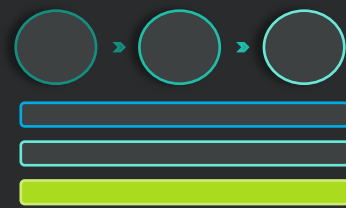


LEADING INNOVATION



2ND PLACE
RECOGNISED BY MEMBERS

Discovery Health is in support of universal health access, where both public and private players provide equitable access to quality care



Discovery Health (DH) is entirely in support of the aspirations of the NHI Bill which encompass broader access to equitable health care for all South Africans.

Covid-19 has demonstrated the importance of having a resilient health system and the opportunity for public-private collaboration in delivery of health care.

We are concerned that there are risks in the technical design of the system which will adversely affect the achievement of the objectives.

We suggest a collaborative approach that leverages off the extensive expertise in the health sector based on an aligned commitment to the policy principles.



Discovery believes there are challenges facing both the private and public sector and we fully support the principle of integrated national health system reform for public benefit

SUMMARY: Discovery Health and DHMS in 2022



DHMS strengthens its competitive position for 2022

Better outcomes for members with diabetes through shared value model of care

Affordability enhanced

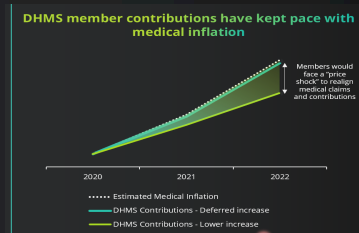
Members effectively paid less contributions since Dec 2020

DHMS members have effectively paid less contributions through efficient use of reserves

| Year | DHMS increase | Next largest competitor increase |
|--------------------------------------|----------------|----------------------------------|
| Dec-2020 | R2,200 | R2,200 |
| Jan - June 2021 | R2,200 | R2,301 |
| July - Dec 2021 | R2,330 | R2,301 |
| Jan - Sept 2022 | R2,330 | R2,412 |
| Oct - Dec 2022 | R2,514 | R2,412 |
| TOTAL CONTRIBUTIONS 2021-2022 | R55,689 | R56,554 |

Pricing stability maintained

Pricing in line with expected medical inflation
No price shocks



Contribution increase deferred to 1 October 2022



Product innovation

Predictive servicing

Stakeholder engagement



DHMS ANNUAL GENERAL MEETING

Chief Executive Officer, Discovery Health | Dr Ryan Noach
June 2022