



MEDICLINIC 
INTERNATIONAL



SHAPING OUR TOMORROW

2022 CLINICAL SERVICES REPORT

ABOUT THIS REPORT

We publish a Clinical Services Report annually as part of our reporting suite in respect of both the 2021 calendar year and 2022 financial year.

📌 **2022 Annual Report and Financial Statements**

📌 **2022 Clinical Services Report**

📌 **2022 Sustainable Development Report**

📌 **2022 Notice of Annual General Meeting**

SCOPE

This report aims to provide Mediclinic International plc ('Mediclinic' or the 'Company') stakeholders with an overview of the most important clinical characteristics across our divisions in Switzerland, Southern Africa (South

Africa and Namibia) and the Middle East (collectively, the 'Group') for the 2021 calendar year, unless stated otherwise.

Material issues are reported at a Group level along with disclosure of divisional initiatives and performance, as this is the level at which data is collected.

This report does not include information on initiatives undertaken by Spire Healthcare Group plc ('Spire'), a leading private healthcare group based in the United Kingdom and listed on the London Stock Exchange ('LSE'), in which we hold a 29.9% interest.

APPROVAL

Mediclinic's Clinical Performance Committee approved this report on 12 May 2022.

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ICON NAVIGATION USED THROUGHOUT THE REPORT

- 📌 Reference to our website
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- 🔍 Case studies
- ▶ Video content



SHARE YOUR VIEW

We welcome your opinion. Please contact Dr René Toua on +27 21 809 6500 or email rene.toua@mediclinic.com with queries or suggestions.

MILESTONES



Intercare Milnerton Medical and Dental Centre

January

From the beginning of 2021, patients could take comfort that the Diabetes Clinical Care Programme at Welcare Hospital had been accredited by the Joint Commission International ('JCI') – a first for Dubai. The programme brings together a multidisciplinary team comprising endocrinologists, nutritionists and diabetes educators. With 16.3% of the United Arab Emirates' ('UAE') adult population suffering from diabetes, quality holistic care is ever more important.



February

In collaboration with the canton of Thurgau, we opened Switzerland's first vaccination centre on a boat. Up to 170 people a day could be assisted on the MS *Thurgau*, moored on Lake Constance.



Prof. Stephen Roche, a surgeon at our Constantiaberg hospital in South Africa, collaborated on an international mixed-reality ('MR') surgery trial. Using HoloLens 2, Microsoft's MR headset, he participated in three holographic surgeries: one performed in Cape Town and two in Europe. Operated with hand gestures and voice commands, the headset lets surgeons view and manipulate 3D images while consulting with colleagues elsewhere.



We opened the first of four renal clinics in Southern Africa in Bloemfontein. Realised through a merger with BGM Renal Care, this further integrates our comprehensive healthcare offering to clients.

See page 45

March

Through TOGETHER WE TEST, we began providing COVID-19 repetitive testing to Swiss companies and schools as well as health and public organisations. The canton of Schwyz became the first to adopt our online platform, which facilitates logistics, laboratory analysis and reporting of results. By the end of the year, 12 cantons and over 9 000 organisations had made use of the service, with more than 4.5 million tests having been performed.

We broke ground on a multi-year development at Klinik St. Anna in Lucerne. The first stage of the extension will house the Institute for Radiology and Nuclear Medicine, enabling the hospital to expand its service.

In Southern Africa, as part of our Group strategy to offer services across the healthcare spectrum, we expanded our Milnerton facility to include Intercare Milnerton Medical and Dental Centre. The co-location of the primary care facility expedites care coordination and complements the acute hospital's offering.

Bloemfontein day case clinic became our 13th facility in Southern Africa for same-day surgery. The clinic has three fully equipped theatres and its focus on planned surgery facilitates scheduling, offering clients convenience while simultaneously making treatment more efficient and cost-effective. Three months later, Winelands day case clinic followed.

MILESTONES CONTINUED



April

🇨🇭 Together with the canton of Zurich, we opened the canton's biggest vaccination centre at Messe Zürich - the city's convention centre. By administering vaccines at five-minute intervals, our centre delivered up to 4 000 vaccinations a day.



May

🇦🇪 The Malaffi Connected Trophy was awarded to our UAE division for work done on implementing electronic health records ('EHRs').

🇦🇪 Following an agreement with the Dubai Health Authority ('DHA'), we began operating the DHA's Al Barsha Dialysis Centre. Running the 60-bed centre - which also offers preventive renal services - aligns with our drive to set the gold standard in kidney care in the UAE. JCI-accredited City Hospital in Dubai is home to a pioneering transplant programme.



Al Barsha Dialysis Centre



August

🇿🇦 We opened our flagship cancer treatment facility in Southern Africa at our Constantiaberg hospital. The ZAR45-million oncology unit, operated in partnership with Icon Oncology, offers patients access to a range of specialists and treatments in a single venue. The investment in technology enables us to provide full-service chemotherapy and state-of-the-art radiation therapy. This coordinated approach reduces wastage and brings clients the best quality and most effective care at the most affordable price.



October

🇦🇪 The UAE's first robotic kidney surgery was performed at City Hospital in Dubai. Using the da Vinci Surgical System, a joint team from Mediclinic and the Mohammed Bin Rashid University of Medicine and Health Sciences ('MBRU') removed a kidney from a living donor.

📄 See page 31

🇦🇪 In a first for the UAE, the stroke programme at our City Hospital was recognised by the American Heart Association for its advanced imaging capabilities, availability of specialised treatments and qualified employees. Following inspection in September, the hospital was awarded Comprehensive Stroke Centre accreditation on 29 October - World Stroke Day.



November

🇦🇪 With the 100% acquisition of Bourn Hall Fertility Centre in Dubai, we further expanded our offering across the continuum of care. The provision of *in vitro* fertilisation ('IVF') neatly complements our maternity services and neonatal intensive care services, and newly launched precision medicine. The opening of a second fertility centre in Abu Dhabi in 2022 will capitalise on this.



December

🇨🇭 The tumour centre of Klinik St. Anna in Lucerne successfully met the stringent criteria of the German Cancer Society in a two-day audit by independent experts. The certification guarantees high-quality oncological care based on an interdisciplinary approach and the latest scientific findings.

INTERNATIONAL RECOGNITION FOR QUALITY

🇨🇭🇦🇪 Seven of our hospitals ranked in the top 30 for Switzerland according to *Newsweek's* list of the World's Best Hospitals for 2022. That equates to nearly a quarter of the top hospitals in the country, even though we represent only around 5% of Swiss hospital beds. The same list ranked three of our Middle East hospitals in the top 28 in the UAE. The *Newsweek* ranking is a reflection of the 2021 calendar year and draws on surveys of medical experts, patient experience feedback and key performance indicators ('KPIs') such as hygiene measures. In both countries, we had the number-one-ranked private hospital.

FROM OUR LEADERSHIP

“

Digital technology enables us to provide care more effectively and efficiently in established care settings while expanding our services to virtual care settings and digital health offerings.

Dr René Toua
Group Chief Clinical Officer



KEEPING CLIENTS AT HEART

Dr René Toua, Group Chief Clinical Officer, reflects on the past year.

Q. WHAT MILESTONES DID MEDICLINIC ACHIEVE IN INTEGRATING CARE IN 2021?

Providing integrated care requires more than just a clinical model. We need the right technology platform. In 2021, we made significant strides with the latter and it is in various stages of implementation across all our geographies. Moreover, a multidisciplinary team is now refining the other key aspects: our clinical model and care pathways.

Q. LAST YEAR SAW A NEW SAFETY EVENT MANAGEMENT SYSTEM IMPLEMENTED. WHAT BENEFITS HAVE YOU EXPERIENCED?

We have experienced three main benefits. Firstly, the ease of reporting allows more stakeholders to participate and report their safety concerns, including independent specialists and contracted service providers. Secondly, it provides a common understanding as definitions and processes are standardised across Mediclinic. And lastly, the new system allows comparison across the organisation and enables us to identify areas for improvement.

Q. WHAT IS MEDICLINIC DOING TO BETTER UNDERSTAND CLIENTS?

Our focus is on understanding our clients and capturing their unfiltered voices. To do this, we are embedding client advisory groups and have also increased the number

of patient-reported outcomes that are measured. In the past, client feedback focused on inpatient settings – it is now expanded to cover all care settings: physical and virtual.

Data also plays a crucial role as it allows us to create a 360° view of our clients, enabling us to understand their needs better. With that knowledge, we are able to refine and focus our strategy and its execution. An added benefit is that by embedding analytics in care processes, we will be able to make better decisions and improve our offering.

Q. HOW ARE YOU ENABLING EMPLOYEES TO PROVIDE CLIENT-CENTRED CARE?

To establish client-centred care, it is essential to create a long-term relationship with our clients. Digital technology enables us to provide care more effectively and efficiently

in established care settings while expanding our services to virtual care settings and digital health offerings.

We also know that, regardless of the care setting, employees must feel supported to be able to care for our clients. As such, we are providing medical, psychological and social support to our people. In 2022, we will also embark on a journey to remind our employees of the cornerstones of client centricity through a training initiative called *Mediclinic Moments*.

Q. THE THEME FOR THIS REPORT IS ‘SHAPING OUR TOMORROW’. WHAT ARE YOUR HOPES FOR THE FUTURE?

My personal hope is that healthcare will use technology to optimise the care-delivery process, but remain focused on humans throughout.



WHO WE ARE

AT A GLANCE

The healthcare industry faces unprecedented change due to ageing populations, a growing burden of lifestyle diseases, advances in new medical technology, the development of virtual care and emerging healthcare consumerism. Additionally, the COVID-19 pandemic has introduced wide-scale change. We are adapting to this changing landscape by evolving across the continuum of care, offering services that prevent, care, recover and enhance. In this way, we are positioning Mediclinic for a sustainable future.

OUR OPERATIONS

 **74**
hospitals¹

 **453**
theatres

 **5**
subacute
hospitals²

 **20**
day case clinics⁴

 **2**
mental health facilities³

 **22**
outpatient clinics⁵

 **11 541**
beds

 **33 683**
full-time equivalents⁶

Notes

- ¹ Provides patient treatment with specialised medical and nursing staff, and medical equipment.
- ² Provides comprehensive goal-orientated inpatient care designed for a patient who has had an acute illness, injury or exacerbation of a disease process.
- ³ Provides specialised treatment of serious mental disorders.
- ⁴ Provides elective procedures, surgical procedures and planned medical procedures, but admits and discharges patients on the same day.
- ⁵ Provides consultations (by general practitioner, specialist or allied healthcare professional) with no theatre facilities.
- ⁶ Number of full-time employees who could have been employed if reported number of hours worked by part-time employees had been worked by full-time employees instead.



SWITZERLAND

Hirslanden, the largest private healthcare provider in Switzerland, is recognised for clinical excellence and outstanding client experience.

www.hirslanden.ch

SOUTH AFRICA AND NAMIBIA

Mediclinic Southern Africa, one of the three largest private healthcare providers in the region, boasts highly specialised acute care infrastructure and has a relentless focus on offering value to all its partners and clients.

www.mediclinic.co.za

THE MIDDLE EAST

Mediclinic Middle East is established as a leading healthcare provider in the UAE with a trusted brand and strong reputation in this developing region, offering clinical care of internationally recognised standards.

www.mediclinic.ae

THE UK (NON-OPERATED)

We have a 29.9% stake in Spire, a leading independent hospital group with 39 hospitals and eight clinics.

www.spirehealthcare.com

Inpatient and day case admissions¹
±750 000

Outpatient revenue¹
+17%

Group Net Promoter Score® ('NPS®')
51

Press Ganey® inpatient experience
survey score (out of 100)
85

Press Ganey® day case clinic experience
survey score (out of 100)
91



Client surveys received

148 570

Note

¹ Based on data for the 2022 financial year.

HOW WE CREATE VALUE

OUR MISSION

Create value every day by providing cost-efficient, quality care and outstanding client experiences

ENABLED BY

ENGAGING

SUPPORTED BY

OUR STRATEGY



- 1 Become an integrated healthcare provider across the continuum of care
- 2 Improve our value proposition significantly
- 3 Transform our services and client engagement through innovation and digitalisation
- 4 Evolve as a data-driven organisation
- 5 Minimise our environmental impact
- 6 Grow in existing markets and expand into new markets

OUR KEY STAKEHOLDERS



Clients



Employees, alumni and potential applicants



Governments and authorities



Healthcare insurers



Investors



Medical practitioners

OUR APPROACH TO HEALTHCARE

OUR PURPOSE

Enhancing the quality of life

THROUGH OUR COMMITMENT TO IMPROVING OUR VALUE PROPOSITION BY FOCUSING ON

BETTER WAYS TO CONNECT

We keep clients and their experience at the heart of everything we do

See page 20

BETTER WAYS TO CARE

We actively pursue superior clinical performance and the best clinical outcomes

See page 29

COST

We offer care in the most appropriate care setting at the most appropriate cost

REINFORCED BY

OUR VALUES



Client centred



Trusting and respectful



Patient safety focused



Performance driven



Team orientated

See the Strategy overview in the **2022 Annual Report** to read more on our strategic goals and progress against each goal, and the **2022 Sustainable Development Report** to read more on our Sustainable Development Strategy, material issues and key stakeholders

HOW WE CREATE VALUE CONTINUED

THE VALUE EQUATION



CLIENT EXPERIENCE

Partnering with clients to create true client centricity

SUPPORTS STRATEGIC GOALS

SUPPORTS ESG¹ GOAL

Be the partner of choice that stakeholders trust

LINK TO MATERIAL ISSUES

- Patient experience
- Employee engagement
- Employee wellness and safety
- Healthcare infrastructure
- Information assets

OUR AMBITIONS FOR 2022

- Launch training initiative on key principles of great client experiences
- Expand patient-reported outcome measures
- Establish patient advisory groups
- Measure client experience in integrated care solutions and virtual care

IN 2021

- Expanded Press Ganey® survey to all care settings
- Implemented NPS® as an additional client loyalty measure

See page 23

- Embedded standardised complaint taxonomy

See page 9

CLINICAL OUTCOMES

Aiming for zero preventable harm to clients

SUPPORTS STRATEGIC GOALS

SUPPORTS ESG¹ GOAL

Be the partner of choice that stakeholders trust

LINK TO MATERIAL ISSUES

- Patient experience
- Employee recruitment and retention
- Employee engagement
- Employee wellness and safety
- Supply chain management
- Healthcare infrastructure
- Information assets

OUR AMBITIONS FOR 2022

- Reduce the number of never events and adverse obstetric outcomes
- Standardise obstetric and surgical care
- Implement an enhanced intensive care and emergency centre ('EC') strategy in Southern Africa

IN 2021

- Group clinical management system implementation:
 - implemented safety event reporting module at all divisions
 - implemented patient feedback module pilot
- Progress with establishment of doctor-specific KPIs

COST

Reducing the cost of us (clinical)

SUPPORTS STRATEGIC GOALS

SUPPORTS ESG¹ GOAL

Be the partner of choice that stakeholders trust

LINK TO MATERIAL ISSUES

- Patient experience
- Supply chain management
- Healthcare infrastructure

OUR AMBITIONS FOR 2022

- Quantify and reduce variation in clinical care outcomes
- Quantify and reduce cost of care complications
- Expand fast-track orthopaedics in Switzerland
- Pilot home care in Southern Africa

IN 2021

- Expanded alternative care settings and treatment modalities, e.g. telemedicine and home care
 - See page 46
- Expanded disciplines covered by indication boards to include oncology, complex visceral and cardiac surgery, and bariatric surgery

LINK TO STRATEGIC GOALS:

- 1** Become an integrated healthcare provider across the continuum of care
- 2** Improve our value proposition significantly
- 4** Evolve as a data-driven organisation
- 5** Minimise our environmental impact

- 3** Transform our services and client engagement through innovation and digitalisation
- 6** Grow in existing markets and expand into new markets

Note

¹ Environmental, social and governance.

HOW WE CREATE VALUE CONTINUED

SUPPORTING THE UNITED NATIONS
SUSTAINABLE DEVELOPMENT GOALS

The United Nations ('UN') has developed a set of Sustainable Development Goals ('SDGs') as a blueprint to shape a more sustainable tomorrow. Our mission to improve our value aligns specifically with Goal 3.

GOAL 3:
GOOD HEALTH
AND WELLBEING

Our healthcare services enable the goals to reduce maternal mortality (SDG 3.1), end preventable deaths of newborns and children (SDG 3.2), reduce deaths from non-communicable disease (SDG 3.4), grow the health workforce (SDG 3.c) and strengthen the capacity to manage national and global health risks (SDG 3.d).

EXAMPLE OF OUR CONTRIBUTION:

41 facilities participate in Vermont Oxford Network ('VON'), a non-profit collaboration to improve neonatal care globally with data-driven quality improvement and research

See pages 41-42

See the 2022 Sustainable Development Report to read more on how our strategy and purpose align with the UN SDGs, and learn more about our investment in the future workforce

KEY PRINCIPAL RISKS

Risks are those factors that could prevent us from realising our healthcare mission and achieving our strategic goals. From a clinical perspective, the following factors could hinder our objectives of providing cost-efficient, quality care and outstanding client experiences.

See the Risk Management Report in the 2022 Annual Report for more information



PANDEMICS AND INFECTIOUS DISEASES

A pandemic occurs when an infectious disease rapidly infects many people and spreads to multiple countries and continents. These risks refer to our ability to respond effectively to the potential adverse clinical, operational and business effects caused by a pandemic or infectious disease.

RISK MITIGATION

- Hospital and business incident response planning
- Central coordination of task teams and clinical governance
 - See page 30
- Monitoring
- Accreditation processes
 - See pages 48-50
- Clinical governance processes
- Monitoring of clinical performance indicators
 - See pages 33-43

PATIENT SAFETY, QUALITY OF SERVICE
AND OPERATIONAL STABILITY

These risks firstly relate to all clinical risks associated with the provision of clinical care resulting in undesirable clinical outcomes. They further refer to the quality of service and the stability of operations, including incidents of poor service or where operational events could lead to business interruptions.

- Focus on quality management processes
- Stakeholder engagement and disclosure strategies
- Clinical audits
- Client experience surveys (both internal and external)
 - See pages 22-25
- Complaints monitoring
- Training programmes and supervision of service levels

SHAPING OUR TOMORROW...
THROUGH CLIENT EXPERIENCE

LEARNING FROM FEEDBACK TO IMPROVE CARE

Client feedback is important for improving performance, so we continuously survey clients – in 2021, we collected 72 858 surveys in our Southern African operations. Yet surveys are limited in the level of detail shared, providing a small window into the client experience. When clients reach out directly to us, that view is much more expansive.

‘With a complaint, you really get the total voice of the client,’ says Dr René Toua, Group Chief Clinical Officer. This feedback is invaluable, but because it is not codified data, analysis is complex and the insight gained limited. To ensure the client voice is being heard clearly, we have instituted a complaint taxonomy – a clear framework for classifying complaints according to key aspects, whether clinical, relational or managerial.

In 2021, our Southern African operations became the first to implement this complaint taxonomy, making us possibly the only healthcare provider in the region



When clients express their dissatisfaction, they do not merely expect personal resolution – they want to see change.

to systematically analyse complaints. The roll-out process included online training sessions with patient experience managers to unpack the thinking behind the taxonomy and the practicalities of use. At quarterly regional meetings, the taxonomy is also a recurring agenda point.

An easy interface in the Southern African customer relationship management (‘CRM’) system enables patient experience managers to efficiently categorise complaints. This data is processed and displayed in the Group client



experience dashboard, giving our Group Executive Committee a clear view on issues.

Previously, complaint information was of a more statistical nature; now, real insights can be gained to inform specific quality improvement projects.

This approach addresses an important aspect of complaints. When clients express their dissatisfaction, they do not merely expect personal resolution – they want to see change. In a Dutch study, patients indicated that the assurance their complaints would lead to improvements was as important as personal amends¹.

Utilising this taxonomy in complaint analysis has already illuminated focus areas. Contrary to expectations for a healthcare organisation, the most prominent theme is not clinical care. ‘It is seldom people mention wrong diagnosis or medication; a lot of times, it is about those softer issues like communication, lack of empathy or coordination between the

care teams,’ says René. The main areas raised thus far relate to the patient journey and humaneness or caring behaviour.

Since complaints are clearly categorised, it is easier to relate key themes to results from the Press Ganey® patient experience index survey. ‘It is invaluable to integrate the sources of feedback and get a combined view for additional insights. Based on what we have learned – and this includes insights from the taxonomy – we have developed strategies to further improve client experience,’ she says. In 2022, we will implement several initiatives in Southern Africa that put clients at the centre of care delivery. These include intentional rounding and bedside case handover among others (see page 26 for more).

‘The beauty of the new taxonomy is that it contributes to developing a 360° view of our clients, enabling us to really listen to the voice of the client,’ says René.

COMPLAINT TAXONOMY

3 domains | 7 categories | 26 subcategories

Note

¹ ‘Comparing the outcome of two different procedures to handle complaints from a patient’s perspective’, *Journal of Forensic and Legal Medicine*, 2013.

OUR HEALTHCARE LANDSCAPE

SWITZERLAND

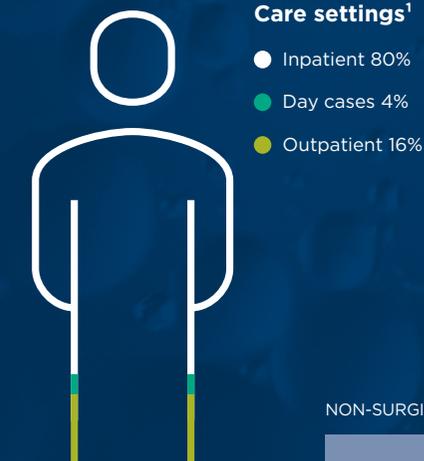
FACILITIES

17 hospitals



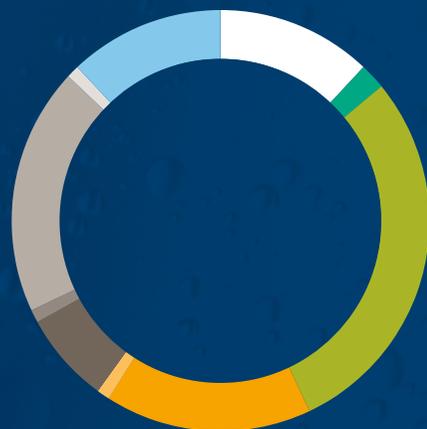
Including:
7 secondary care community hospitals
7 tertiary care city hospitals

4 day case clinics



SPECIALTY SPLIT¹

- Cardiology 12%
- General medicine 2%
- General surgery 29%
- Internal medicine 16%
- Laboratory 1%
- Obstetrics and gynaecology 7%
- Oncology 1%
- Orthopaedics 19%
- Paediatrics 1%
- Radiology 12%



HEALTHCARE SERVICES

- ✓ DIAGNOSTICS
- ✓ ROUTINE ELECTIVE PROCEDURES
- ✓ SPECIALISED TREATMENTS
- ✓ EMERGENCY CARE
- ✓ ADVANCED TECHNOLOGY
- ✓ PRECISION MEDICINE
- ✓ CLIENT APP
- ✓ RESEARCH AND TRAINING
- ✓ COVID-19 VACCINATION CENTRES
- ✓ COVID-19 ONLINE REPETITIVE TESTING

WORLD-CLASS CARE

- 6 certified breast cancer centres
- Comprehensive Cancer Centre ('CCC') at Klinik Hirslanden
- Prostate cancer centre at Klinik Hirslanden
- Tumour centre at Klinik St. Anna
- Certified stroke centre at Klinik Hirslanden
- 4 cardiac centres
- CAR-T therapy at Klinik Hirslanden
- 9 hospitals offer robotic surgery
- CyberKnife at Klinik Hirslanden

QUALITY ASSURANCE

- ISO 9001:2015 certification for all participating facilities
- ISO 13485 certification for reprocessing of medical devices - 5 facilities
- German Cancer Society certification - 2 cancer centres
- Joint Accreditation Committee ISCT-Europe and EBMT ('JACIE') accreditation - Klinik Hirslanden
- Swiss Cancer League certification - 6 breast cancer centres
- Swiss Cancer League and Swiss Society for Senology certification - Bern Biel Cancer Centre
- Swiss Federation of Clinical Neuro-Societies ('SFCNS') certification (2020-2023) - Klinik Hirslanden Stroke Centre

Notes

¹ Based on revenue.
² Reflecting inpatient and day case admissions only.
 In Switzerland, major trauma, neonatal intensive care and advanced critical care handled by cantonal and university teaching facilities.

OUR HEALTHCARE LANDSCAPE CONTINUED

SWITZERLAND

Hospitals

Canton of Aargau

- 1 Hirslanden Klinik Aarau¹

Canton of Appenzell
Ausserrhoden

- 2 Klinik Am Rosenberg

Canton of Basel-Land

- 3 Klinik Birshof

Canton of Bern

- 4 Klinik Beau-Site
- 5 Klinik Linde¹
- 6 Klinik Permanence
- 7 Salem-Spital¹

Canton of Geneva

- 8 Clinique des Grangettes¹
- 9 Clinique La Colline

Canton of Lucerne

- 10 Klinik St. Anna¹
- 11 St. Anna in Meggen

Canton of St. Gallen

- 12 Klinik Stephanshorn¹

Canton of Vaud

- 13 Clinique Bois-Cerf
- 14 Clinique Cecil¹

Canton of Zug

- 15 AndreasKlinik Cham Zug¹

Canton of Zurich

- 16 Klinik Hirslanden¹
- 17 Klinik Im Park¹

Day case clinics

Canton of Lucerne

- 1 St. Anna im Bahnhof

Canton of Zurich

- 2 Operationszentrum Bellaria
- 3 OPERA Zumikon

Canton of St. Gallen

- 4 OPERA St. Gallen



Note

¹ Hospital with obstetrics department.

OUR HEALTHCARE LANDSCAPE CONTINUED

SOUTHERN AFRICA

FACILITIES¹

 **50** hospitals

 **5** subacute hospitals

 **2** mental health facilities

 **14** day case clinics

 **42** emergency transport bases and 19 industrial site bases in South Africa

SPECIALTY SPLIT²

- Cardiology 7%
- General medicine 7%
- General surgery 20%
- Internal medicine 32%
- Nursing and allied health professionals 1%
- Obstetrics and gynaecology 9%
- Oncology 1%
- Orthopaedics 15%
- Paediatrics 8%

HEALTHCARE SERVICES

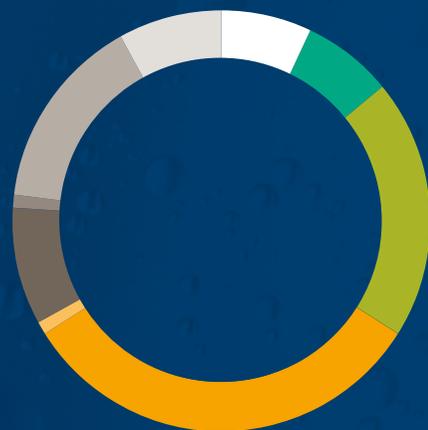
- ✓ ROUTINE ELECTIVE PROCEDURES
- ✓ SPECIALISED TREATMENTS
- ✓ EMERGENCY CARE
- ✓ TRANSPLANT MEDICINE
- ✓ ADVANCED TECHNOLOGY
- ✓ CLIENT APP
- ✓ RESEARCH AND TRAINING

WORLD-CLASS CARE

- Solid Organ Transplant Centre at Wits Donald Gordon Medical Centre in partnership with Wits University
- Haematology and Bone Marrow Transplant Centre at our Constantiaberg hospital
- 45 ECs
- Arthroplasty network
- 9 cardiac centres
- 2 electrophysiology centres
- Robotic surgery at our Durbanville hospital
- 36 neonatal intensive care units ('ICUs') for high-risk infants, 34 of which form part of VON⁴

QUALITY ASSURANCE

37 hospitals participate in COHSASA⁵ accreditation programme⁶



Care settings²

- Inpatient 90%
- Day cases 7%
- Outpatient 3%



Notes

- ¹ Includes Intercare facilities.
- ² Based on revenue.
- ³ Reflecting inpatient and day case admissions only.
- ⁴ The two ICUs not on VON have only one bed each.
- ⁵ Council for Health Service Accreditation of Southern Africa ('COHSASA').
- ⁶ The accreditation programme was paused during COVID-19 with COHSASA granting an extended grace period for reaccreditation. Reaccreditation has now restarted. Accreditation is limited to the largest hospitals caring for the more complex cases. These hospitals undergo regular reaccreditation surveys on a rotational basis, the findings of which are shared with the hospitals and the Southern Africa Corporate Office. Learning points emerging from findings inform focus areas for improvement initiatives, which also benefit smaller non-participating hospitals. In addition, the smaller facilities adhere to all the required regulatory requirements and industry standards.

OUR HEALTHCARE LANDSCAPE CONTINUED

SOUTHERN AFRICA

Hospitals

Free State

- 1 Mediclinic Bloemfontein
- 2 Mediclinic Hoogland
- 3 Mediclinic Welkom

Gauteng

- 4 Intercare Medfem Hospital
- 5 Mediclinic Emfuleni
- 6 Mediclinic Heart Hospital
- 7 Mediclinic Kloof
- 8 Mediclinic Legae
- 9 Mediclinic Medforum
- 10 Mediclinic Midstream
- 11 Mediclinic Morningside
- 12 Mediclinic Muelmed
- 13 Mediclinic Sandton
- 14 Mediclinic Vereeniging
- 15 Wits Donald Gordon Medical Centre¹

KwaZulu-Natal

- 16 Mediclinic Newcastle
- 17 Mediclinic Pietermaritzburg
- 18 Mediclinic Victoria

Limpopo

- 19 Mediclinic Lephalale
- 20 Mediclinic Limpopo
- 21 Mediclinic Thabazimbi
- 22 Mediclinic Tzaneen

Mpumalanga

- 23 Mediclinic Ermelo
- 24 Mediclinic Highveld
- 25 Mediclinic Nelspruit

Namibia

- 26 Mediclinic Otjiwarongo
- 27 Mediclinic Swakopmund
- 28 Mediclinic Windhoek

Northern Cape

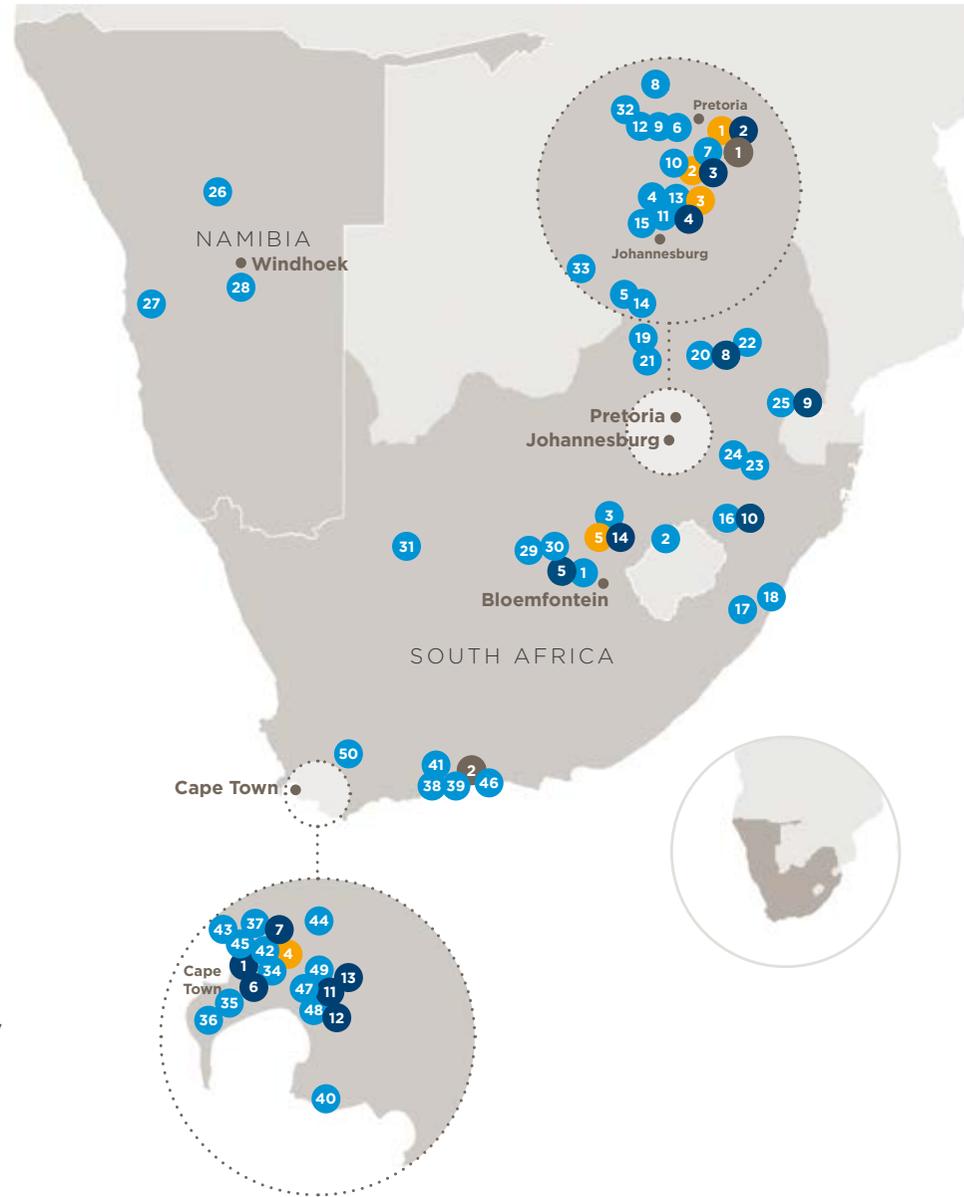
- 29 Mediclinic Gariep
- 30 Mediclinic Kimberley
- 31 Mediclinic Upington

North West

- 32 Mediclinic Brits
- 33 Mediclinic Potchefstroom

Western Cape

- 34 Mediclinic Cape Gate
- 35 Mediclinic Cape Town
- 36 Mediclinic Constantiaberg
- 37 Mediclinic Durbanville
- 38 Mediclinic Geneva
- 39 Mediclinic George
- 40 Mediclinic Hermanus
- 41 Mediclinic Klein Karoo
- 42 Mediclinic Louis Leipoldt
- 43 Mediclinic Milnerton
- 44 Mediclinic Paarl
- 45 Mediclinic Panorama
- 46 Mediclinic Plettenberg Bay
- 47 Mediclinic Stellenbosch
- 48 Mediclinic Vergelegen
- 49 Mediclinic Winelands Orthopaedic Hospital
- 50 Mediclinic Worcester



Note

¹ Associated company being equity accounted (Mediclinic Southern Africa holds 49.9%).

Subacute hospitals

- 1 Intercare Hazeldean Subacute and Rehabilitation Hospital
- 2 Intercare Irene Subacute and Rehabilitation Hospital
- 3 Intercare Sandton Subacute and Rehabilitation Hospital
- 4 Intercare Tyger Valley Subacute Hospital
- 5 Welkom Medical Centre Subacute Hospital

Mental health facilities

- 1 Denmark Specialist Psychiatric Hospital
- 2 Mediclinic Neuro Clinic

Day case clinics

- 1 Intercare Century City Day Hospital
- 2 Intercare Hazeldean Day Hospital
- 3 Intercare Irene Day Hospital
- 4 Intercare Sandton Day Hospital
- 5 Mediclinic Bloemfontein Day Clinic
- 6 Mediclinic Cape Gate Day Clinic
- 7 Mediclinic Durbanville Day Clinic
- 8 Mediclinic Limpopo Day Clinic
- 9 Mediclinic Nelspruit Day Clinic
- 10 Mediclinic Newcastle Day Clinic
- 11 Mediclinic Stellenbosch Day Clinic
- 12 Mediclinic Vergelegen Day Clinic
- 13 Mediclinic Winelands Day Clinic
- 14 Welkom Medical Centre Day Clinic

OUR HEALTHCARE LANDSCAPE CONTINUED

THE MIDDLE EAST

FACILITIES

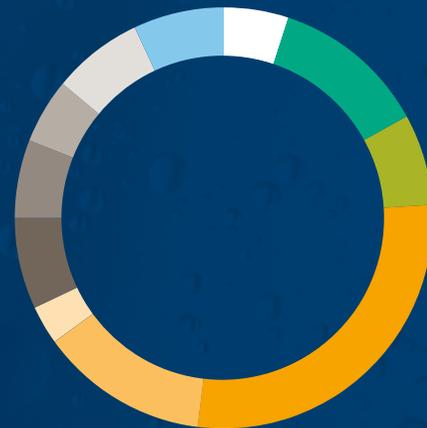
 **7** hospitals

 **2** day case clinics

 **22** outpatient clinics

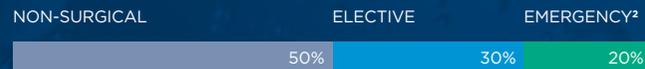
SPECIALTY SPLIT¹

- Cardiology 5%
- General medicine 12%
- General surgery 7%
- Internal medicine 28%
- Laboratory 13%
- Nursing and allied health professions 3%
- Obstetrics and gynaecology 7%
- Oncology 6%
- Orthopaedics 5%
- Paediatrics 7%
- Radiology 7%



Care settings¹

- Inpatient 25%
- Day cases 12%
- Outpatient 63%



HEALTHCARE SERVICES

- ✓ OUTPATIENT CARE
- ✓ REMOTE CARE
- ✓ TELEMEDICINE
- ✓ CLIENT APP
- ✓ DIAGNOSTICS
- ✓ ROUTINE ELECTIVE PROCEDURES
- ✓ SPECIALISED TREATMENTS
- ✓ EMERGENCY CARE
- ✓ ADVANCED TECHNOLOGY
- ✓ PRECISION MEDICINE
- ✓ RESEARCH AND TRAINING

WORLD-CLASS CARE

- CCC in the North Wing adjacent to City Hospital
- 7 cardiology units³
- 2 cardiac centres
- Robotic surgery at City Hospital
- Stroke centre at City Hospital
- 7 neonatal ICUs for high-risk infants, all of which form part of VON

QUALITY ASSURANCE

- CAP⁴ accreditation – City Hospital laboratory
- EASO⁵'s Collaborating Centres for Obesity Management accreditation – specialised unit at 3 hospitals
- ISO 15189:2009 certification for 9 laboratories
- JCI accreditation for all facilities, except Springs, dialysis centres and fertility centres
- JCI Clinical Care Programme certification – diabetes clinical programme at Welcare Hospital, acute coronary syndrome programme at City Hospital and Airport Road Hospital, and breast cancer programme at City Hospital
- Surgical Review Corporation Centre of Excellence accreditation – specialised bariatric unit at Airport Road Hospital

Notes

- ¹ Based on revenue.
- ² Reflecting inpatient and day case admissions only.
- ³ Mediclinic Al Jowhara Hospital does not have a catheterisation laboratory and does not offer interventional cardiology.
- ⁴ College of American Pathologists ('CAP').
- ⁵ European Association for the Study of Obesity ('EASO').

OUR HEALTHCARE LANDSCAPE CONTINUED

THE UAE

Hospitals

- 1 Mediclinic Airport Road Hospital
- 2 Mediclinic Al Ain Hospital
- 3 Mediclinic Al Jowhara Hospital
- 4 Mediclinic Al Noor Hospital
- 5 Mediclinic City Hospital
- 6 Mediclinic Parkview Hospital
- 7 Mediclinic Welcare Hospital

Day case clinics

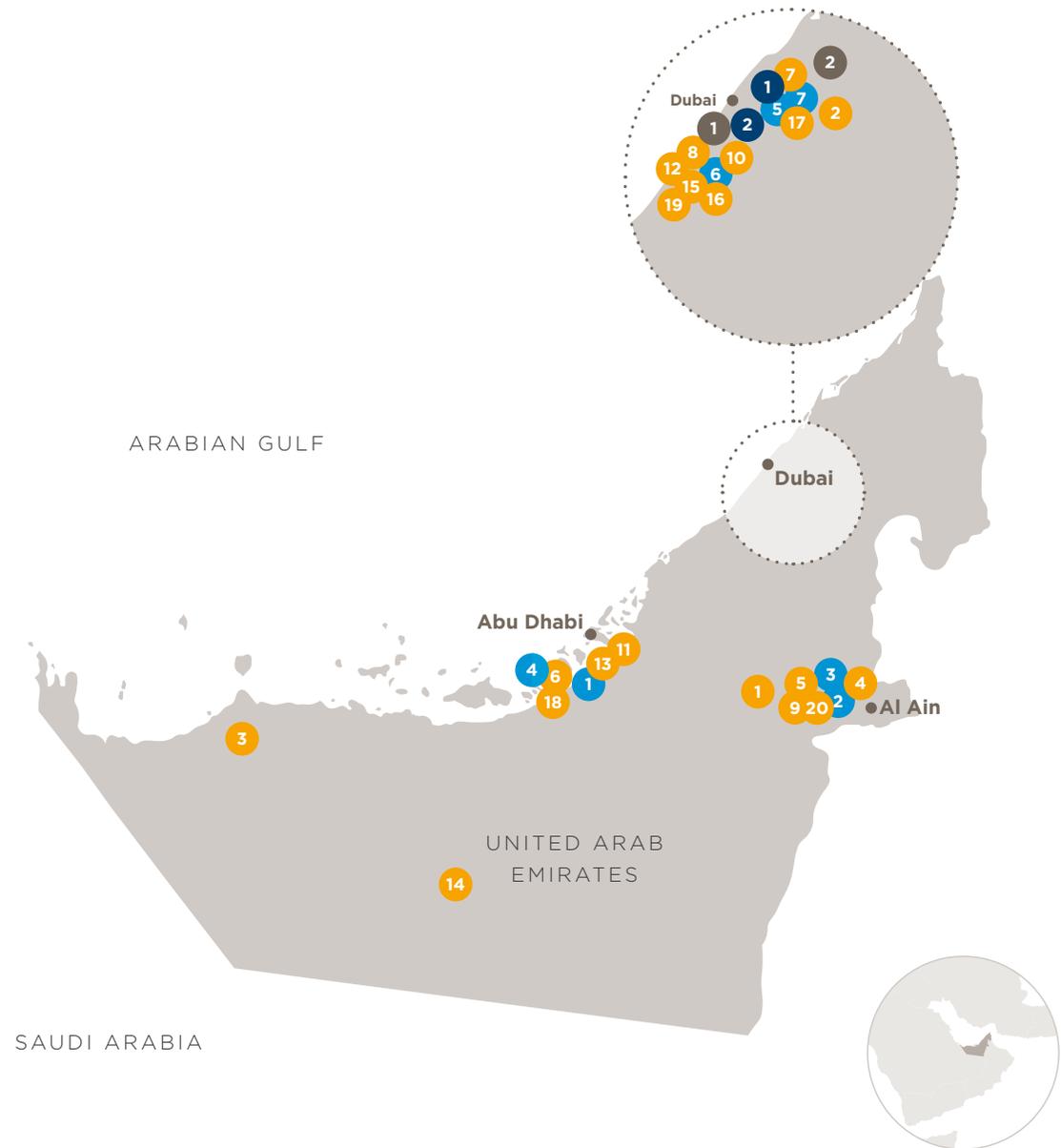
- 1 Mediclinic Deira
- 2 Mediclinic Dubai Mall

Public-private partnerships

- 1 Al Barsha Dialysis Centre
- 2 Al Tawar Dialysis Centre

Outpatient clinics

- 1 Bourn Hall Al Ain
- 2 Bourn Hall Dubai
- 3 ENEC
- 4 Mediclinic Al Bawadi
- 5 Mediclinic Al Madar
- 6 Mediclinic Al Mamora
- 7 Mediclinic Al Qusais
- 8 Mediclinic Al Sufouh
- 9 Mediclinic Al Yahar
- 10 Mediclinic Arabian Ranches
- 11 Mediclinic Baniyas
- 12 Mediclinic Ibn Battuta
- 13 Mediclinic Khalifa City
- 14 Mediclinic Madinat Zayed
- 15 Mediclinic Meadows
- 16 Mediclinic Me'aisem
- 17 Mediclinic Mirdif
- 18 Mediclinic Mussafah
- 19 Mediclinic Springs
- 20 Mediclinic Zakher



OUR HEALTHCARE LANDSCAPE CONTINUED

PATIENTS AND MEDICAL PRACTITIONERS

Each division deals with distinct burdens of disease and works within different governmental frameworks.

PATIENTS

		SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
Average patient age		59 years (2020: 59 years) 	44 years (2020: 46 years) 	34 years (2020: 35 years) 
Average inpatient length of stay (in calendar days)		4.32 days (2020: 4.34 days) 	4.48 days (2020: 4.17 days) 	3.24 days (2020: 3.63 days) 
Case mix index ¹		1.52 (2020: 1.51) 	1.36 (2020: 1.35) 	1.06 (2020: 1.29) 
COVID-19 impact		The case mix index reflects the high load of complex and technologically advanced cases in an older population. This division was the least impacted by the COVID-19 pandemic, both in number of COVID-19 patients and loss of elective procedures. As a result, the impact on the length of stay and case mix index was not as significant as for the other divisions.	The impact of the COVID-19 pandemic was twofold. Firstly, there was a decrease in less severe cases, partially due to the temporary ban on elective procedures and partially due to potential patients avoiding hospitals. Secondly, COVID-19 patients required longer stays and were more severely ill than the average admission, which affected the length of stay and case mix index.	The low case mix index, which results in a relatively short stay, reflects the young patient population. During 2020, the restrictions on elective surgeries and the large number of COVID-19 admissions throughout the year led to the higher case mix index and length of stay. These normalised during 2021, returning to pre-pandemic levels. In addition, due to the implementation of diagnostic-related groupings in Dubai (effective September 2020), co-morbidities were coded only if treated, further contributing to the decrease in case mix index.
Main medical issues	Burden of disease	<ul style="list-style-type: none"> Mainly chronic diseases commonly associated with lifestyle and old age Very small burden of communicable (infectious) diseases and trauma 	<ul style="list-style-type: none"> Mainly communicable (infectious) diseases Chronic diseases more prevalent in insured population, followed by communicable diseases and trauma 	Chronic lifestyle diseases and communicable (infectious) diseases
	Most common chronic diseases ²	<ul style="list-style-type: none"> Hypertension Ischaemic heart disease Hyperlipidaemia 	<ul style="list-style-type: none"> Diabetes mellitus Hypertension Hyperlipidaemia 	<ul style="list-style-type: none"> Dysrhythmias Hyperlipidaemia Chronic renal disease
Underlying chronic medical conditions may significantly impact the level of care received and/or length of stay				

Notes

¹ Case mix refers to the characteristics of patients served, where some have more complex medical conditions that may influence outcomes. Healthcare providers have no control over these characteristics and, therefore, the need exists to keep them fixed in comparative analysis. The ability to measure the heterogeneous case mix of hospitals has been recognised for some time as critical to improving hospitals and health system management through planning and quality assurance, as well as achieving equity in hospital reimbursement. Without the capability to measure case-mix differences, the comparative analysis of hospital outcomes and attempts to establish the reasonableness of those outcomes often reflect in oversimplification of the issues involved and may result in invalid and misleading findings. The case mix indices of the divisions were calculated by using the internally developed clinical and cost-related grouping ('CCRG'). The CCRG classifies the type of illness and clinical severity in a hierarchical system of clinical and statistical homogenous groups used to assign a risk score to each patient. A higher score reflects higher complexity and case load. These risk scores, in turn, are used to group patients in risk strata to enable risk-adjusted benchmarking.

² The ranked list was generated based on a South African-regulated chronic disease list which does not perfectly apply to the Swiss setting and coding standards. Comparability is thus limited.

OUR HEALTHCARE LANDSCAPE CONTINUED

MEDICAL PRACTITIONERS

	SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
Employment	<ul style="list-style-type: none"> • Most admitting medical practitioners self-employed • Medical practitioners working in the fields of hospital-based specialties, such as anaesthetics, internal medicine and emergency medicine, employed at some hospitals • In most instances, radiology, nuclear medicine and radiation oncology services owned and operated by hospitals 	<ul style="list-style-type: none"> • Admitting medical practitioners, excluding emergency medicine practitioners within certain ECs, self-employed and practise independently • Radiology, laboratory and oncology services provided by independent practices 	<ul style="list-style-type: none"> • Most of the medical practitioners who work in the facilities employed by Mediclinic • Laboratory and radiology services owned and operated by Mediclinic
Clinical quality	<ul style="list-style-type: none"> • Treating and admitting medical practitioners registered with Swiss Government's registry for medical professions • Affiliation follows strict entry criteria and comprehensive credentialing process, assisted by clinical committee • Medical practitioners evaluated at least annually on case numbers, infections, re-operations and liability cases • Abnormalities investigated by hospital management • Anonymous means to report performance problems, which hospital management teams and medical practitioner committees address • Insufficient performance improvements lead to de-accreditation 	<ul style="list-style-type: none"> • Treating and admitting medical practitioners registered with the Health Professions Council of South Africa ('HPCSA') or Health Professions Council of Namibia ('HPCNA') • Medical practitioners work within scope of defined clinical disciplines as determined by HPCSA/HPCNA registration • Performance and clinical outcomes monitored by Clinical Performance Committees ('CPCs') comprised of medical practitioners working at hospital, hospital general managers, and regional and Corporate Office teams 	<ul style="list-style-type: none"> • All medical practitioners licensed with the relevant authority in the UAE (DHA, Department of Health) • Standardised performance appraisal process includes reviewing feedback from peers and patients, clinical KPIs, incidents and quality-related complaints • Clinical privileges reviewed annually and depend on medical practitioner's activity during the past year and additional skills obtained • Comprehensive incident reporting and concerns addressed by medical directors and Clinical Quality Patient Safety Committees that meet monthly • All patient complaints investigated • Immediate action taken if problem arises, including counselling, remedial action, review of privileges or, if appropriate, termination of privileges



OUR HEALTHCARE LANDSCAPE CONTINUED

COVID-19

This year, the pandemic’s impact on our operations and stakeholders continued. The Omicron variant’s higher transmissibility began to impact the Group from November 2021, affecting staffing and patient scheduling. Even though we treated far more COVID-19 inpatients in 2021 compared with 2020, we experienced fewer operational restrictions. Consequently, the pandemic’s impact was less severe and our other client activity has steadily increased, supported by our ability to implement and accommodate protocols to ensure services are offered safely and conveniently. However, we continued to postpone some non-critical clinical initiatives to prioritise the safety of our clients and employees, delivering quality care and supporting the wellbeing of our people.

Our approach to providing elective procedures and outpatient treatments has remained fluid; yet, delivery of critical and urgent care has not wavered. Hospitals have adapted their services to reflect any local restrictions, the changing demands on individual and regional facilities, and the availability of clinical personnel.

SAFETY FIRST

Led by our centrally coordinated Clinical Services function, we continued to strengthen our response to the pandemic and adapt our infection prevention and control ('IPC') programmes by leveraging Group insight and best practices.

- IPC and communicable disease emergency preparedness programmes govern admission, containment, triage and treatment of suspected or confirmed COVID-19 cases

- Mandatory COVID-19 testing prior to admission for elective procedures
- Mandatory COVID-19 testing upon admission for all non-elective admissions
- New clinical guidelines for care process flow of COVID-19 patients from EC to unit, ICU, high dependency and palliative care or discharge
- Periodic employee COVID-19 testing as per regulatory guidelines
- Employee vaccination programmes

EMPLOYEE PROTECTION, EDUCATION AND WELLBEING

- Work-from-home arrangements for qualifying employees
- COVID-19 and personal protective equipment ('PPE')-use training and PPE supply for workplace use
- Screening and self-isolation of employees
- Vulnerable frontline employees redeployed to lower-risk units
- Paid leave for sick and quarantined employees

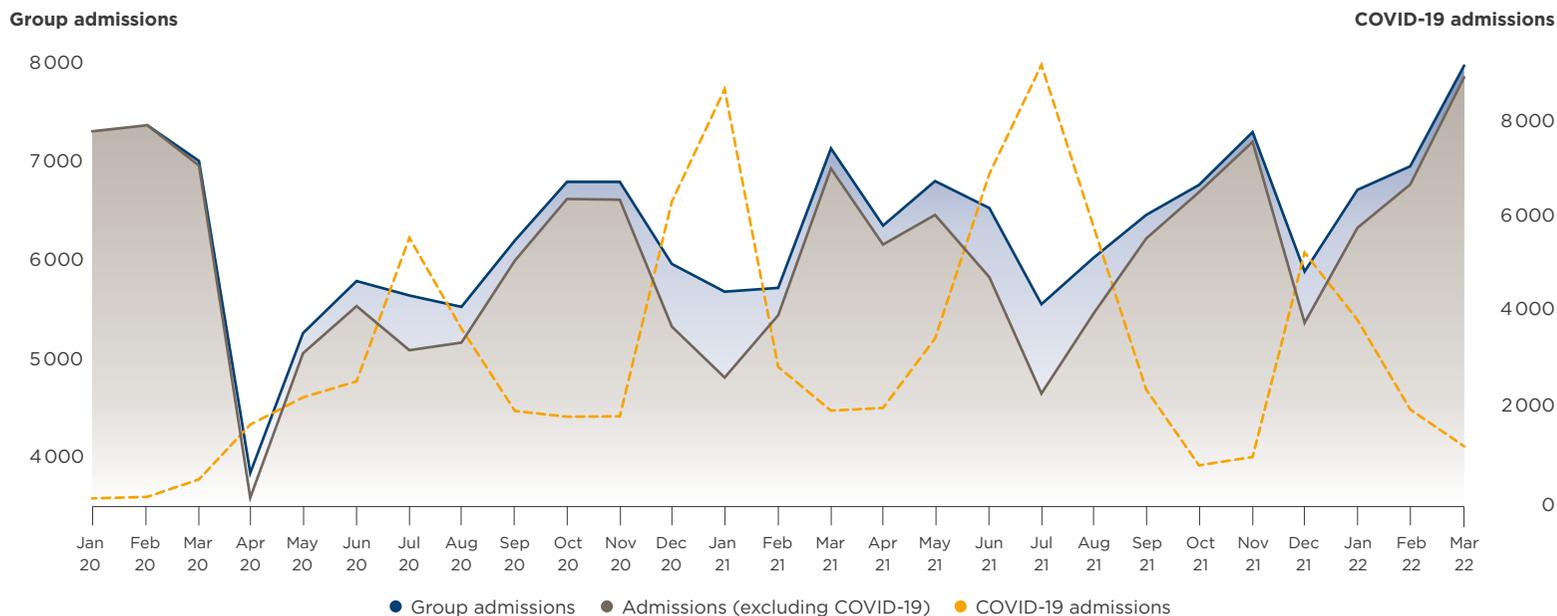
- E-learning and distance learning methods implemented for continuous medical training and education
- Mental and physical wellbeing support for employees and affiliated doctors
- Regular communication with employees and affiliated doctors

See the **2022 Sustainable Development Report** for more information on COVID-19 leave practices and how we support the wellbeing of our employees

± 27 000 COVID-19 inpatients in 2020
± 49 000 COVID-19 inpatients in 2021

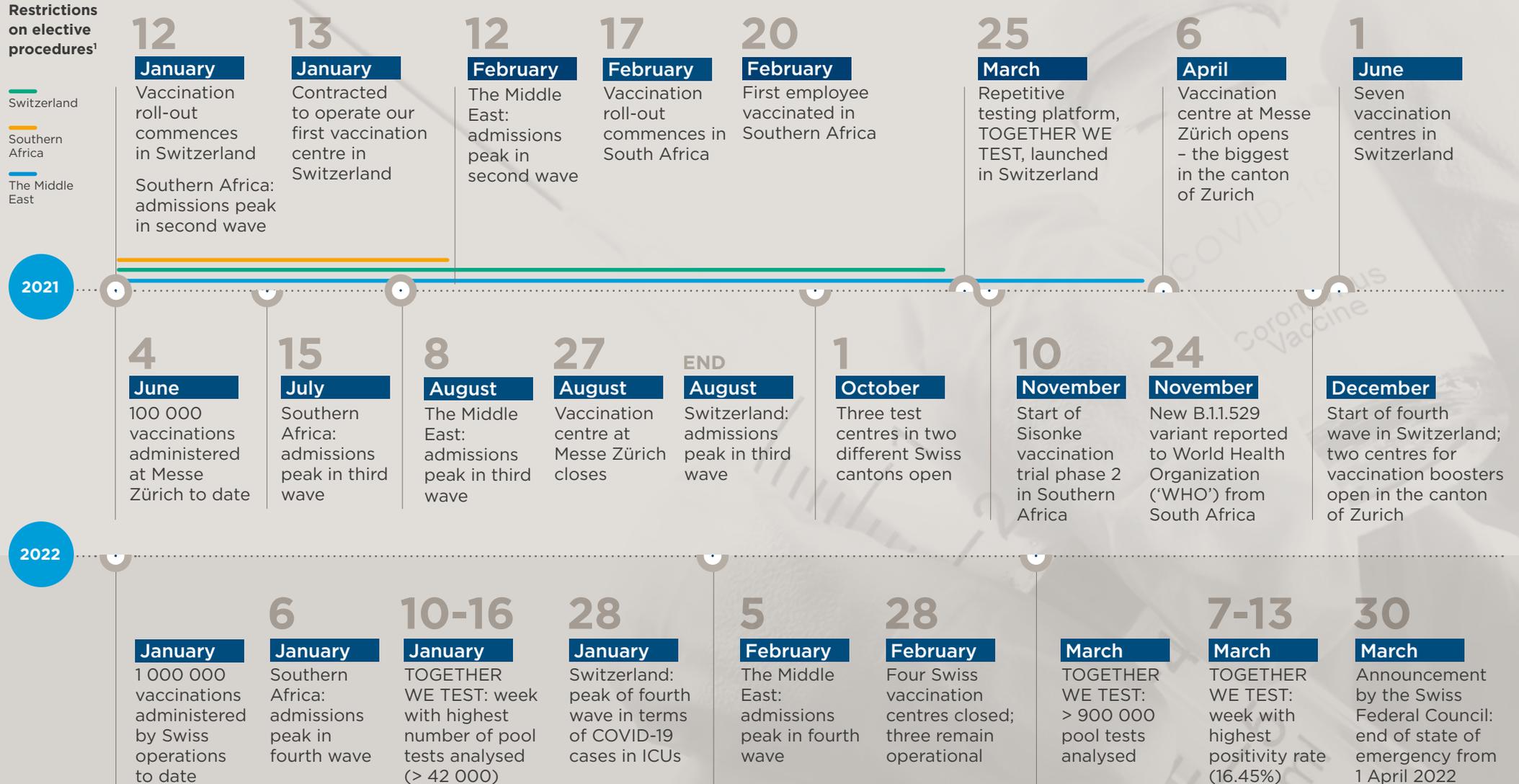


Monthly admissions and COVID-19 cases



OUR HEALTHCARE LANDSCAPE CONTINUED

COVID-19 TIMELINE

**Note**

¹ Restrictions were both self-imposed and government mandated to preserve capacity. In some divisions, restrictions were applicable to certain regions or facilities only.

BETTER WAYS TO CONNECT

The wellbeing of clients and building long-term relationships with them form the cornerstone of the business and the Group's ability to pursue its purpose.

PATIENT OR CLIENT?

'I carefully considered the nature of the relationship between Mediclinic and those who make use of our services within an evolving healthcare landscape. A patient is a person receiving medical care; a client is a person who receives advice. The latter implies a level of trust and a long-term relationship that extends beyond mere treatment. We want our patients to interact with Mediclinic beyond the conventional treatment process, rather as a client who turns to us to enhance their quality of life.'

**- Dr Ronnie van der Merwe,
Group Chief Executive Officer**



OUR CLIENTS

With increased engagement and collaboration, we continuously measure and improve client experience. Client surveys and dedicated client-experience employees contribute towards strengthened long-term relationships.

WHAT MATTERS TO THEM

- Easy access to safe, quality and cost-effective healthcare via world-class facilities and technology
- Appropriate care settings
- Treatment information
- The right to make decisions on their care
- Client experience
- Personal data and patient rights
- Timely communication
- Operational efficiency
- Courteous, empathetic and personalised care

ADDRESSED THROUGH

- Systematic patient rounds during hospital stay
- Dedicated employees attend to guest relations at Swiss facilities
- Patient experience managers at Southern African facilities
- Dedicated employees attend to client complaints in the Middle East
- 24-hour helplines
- Press Ganey® patient experience index surveys
- NPS® feedback
- Health awareness days and campaigns
- Client-centred product and programme development
- Corporate events
- Client advisory groups

SHAPING OUR TOMORROW... THROUGH RELATIONSHIP MANAGEMENT

THE POWER OF POSITIVE FEEDBACK

Understanding client experience lies at the heart of our continuous improvement efforts. With this in mind, in 2021, we introduced a policy to regulate active complaint management and ensure Mediclinic hospitals report patient feedback uniformly. This streamlined complaint categorisation to not only reduce the recording effort but also make data comparable.

In Switzerland, the roll-out of the new taxonomy and method of complaint management involved virtual workshops, specific training if hospitals were unfamiliar with the system, and classification in the Swiss CRM dashboard. Whereas the Press Ganey® patient experience survey offers quantitative data on client experience, feedback made directly to the hospital provides qualitative information.

Online client responses are instantly captured in the CRM system while other feedback, such as phone calls, is entered by employees. Each report is classified by department, main category, subcategory and attributes, with reports sent to department heads. Every quarter, the management team reviews overall reports. Clients receive a personal response to their feedback as well as flowers where an apology is appropriate.

While this process to record and analyse client feedback is known as complaint management, impressions are not entirely

negative. 'We also receive a lot of positive feedback. The majority of clients are completely satisfied with their hospital stay,' says Béatrice Schwark, Head of Quality Management at our Swiss division.

Last year, our Swiss operations received around 15 000 patient feedback reports – more than 1 000 a month. 'Whether it is about the organisation of a vaccination centre, an examination in the EC over Christmas or a

difficult intervertebral disc operation, most of the feedback is positive,' she says. The recommendation rate for our Swiss facilities is 93%, a top value internationally.

Compliments also play a role in building company culture. 'We intend to regularly inform our employees and medical staff about the many positive client reports received. What individual hospitals have already successfully implemented for years, we now



We can use these strengths to multiply positive practices. Client experience, service quality and leadership culture are thus promoted at the same time.



want to roll out across the division,' says Béatrice. Using the internal communication channels, our Swiss operations will regularly post client feedback. Praise and thanks make up two-thirds of client feedback received, which can now be shared with all employees.

Sharing client appreciation is not merely a way to recognise employees' efforts – being transparent also enhances quality. 'We can use these strengths to multiply positive practices. Client experience, service quality and leadership culture are thus promoted at the same time.'



PATIENT EXPERIENCE

Client experience refers to a wide spectrum of interactions our clients have with us. These may be related to care or administration (i.e. settling accounts, scheduling appointments). Patient experience is a subsection of client experience and relates to the experience of a patient in most settings across the continuum of care.

2021 IN GROUP NUMBERS

NPS® INPATIENT¹ **56** | NPS® EMERGENCY CENTRE¹ **35**

	PRESS GANEY® INPATIENT SURVEY	PRESS GANEY® EMERGENCY CENTRE SURVEY ²	PRESS GANEY® AMBULATORY SURGERY SURVEY ²
Overall mean score (out of 100)	85 2020: 84	79 2020: 80	91 2020: 91
Total participating facilities ³	72 2020: 75	45 2020: 41	19 2020: 17
Total surveys collected	78 467 2020: 62 873	19 807 2020: 9 833	6 344 2020: 2 309

Notes

¹ New metric introduced in 2021. As such, no prior-year comparable data available.

² The 2020 results are for a nine-month period; surveying started on 1 April 2020.

³ Participating facilities reduced as a direct result of an overall decrease in owned facilities.

NPS®

In 2021, we introduced NPS®, a client experience metric that measures loyalty, and will expand this to all client interactions across the continuum of care.



We measure patient experience continuously in order to gain greater insight into what matters most to our clients. This enables us to adjust our care services to answer their evolving needs.



SHAPING OUR TOMORROW... WITH CLIENT INSIGHTS

UNDERSTANDING NET PROMOTER SCORE®

One question = top indicator of customer loyalty

‘How likely are you to recommend us to a friend, family member or colleague?’

NOT AT ALL LIKELY ←-----→ EXTREMELY LIKELY



DETRACTORS Dissatisfied clients whose negativity can harm a brand



PASSIVES Satisfied but indifferent, will switch readily



PROMOTERS Loyal clients that refer others

How is NPS® determined?

$\% \text{ promoters} - \% \text{ detractors} = \text{NPS}^\circ$

INTERPRETING THE SCORE

NPS®	RANKING
-100-0	Needs improvement
0-30	Good
31-70	Great
71-100	Excellent

Notes

¹ Global trust in advertising' (2015), Nielsen.
² 'Referral programs and customer value', The Wharton School.
³ 'The use of Net Promoter Score to predict sales growth', Journal of the Academy of Marketing Science.



NPS® is a useful performance metric because it is:

- ✓ already covered in Press Ganey® survey
- ✓ easy to implement in care settings not measured through Press Ganey® survey
- ✓ easy to capture, calculate and understand
- ✓ relevant to all care settings (physical and virtual)
- ✓ comparable across the Group
- ✓ suited to external benchmarking

83% of consumers trust the recommendations of friends and family¹

16% higher value for customers that have been referred²

2/3 of Fortune 1000 firms use NPS³

TABLE 1: NPS® FOR THE 2021 CALENDAR YEAR

	GROUP	SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
Inpatient	56	71	49	54
Emergency centre	35	Not measured	36	16

PATIENT EXPERIENCE CONTINUED

PRESS GANEY®

We benchmark and publicly report on patient experience at a divisional level through Press Ganey®, an internationally recognised leading provider of patient experience measurement for healthcare organisations. Patients are surveyed after discharge and this valuable feedback helps us better understand patients' needs and adapt care services accordingly (Tables 2-5).

In 2020, various new surveys were introduced to expand the range of patient experience insights. In addition to surveys for the EC and ambulatory surgery, we now also garner feedback from paediatric patients with a special version of the inpatient survey. Moreover, the inpatient survey has been enhanced with additional questions for patients admitted via the hospital's EC. In the Middle East, we have a special survey for virtual care patients.

What do we survey?



TABLE 2: PRESS GANEY® INPATIENT RESULTS FOR THE 2021 CALENDAR YEAR

	SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST	
Participating since	February 2017	October 2014	October 2014	
Total participating facilities	17	48	7	
Total surveys collected	26 204	50 328	1 879	
	(2020: 18 072)	(2020: 42 540)	(2020: 2 262)	
Likelihood of recommending the hospital/clinic	92.3%	85.0%	85.0%	
	(2020: 91.8%)	(2020: 85.0%)	(2020: 87.0%)	
Mean score out of 100	Overall	88.9	83.0	84.0
		(2020: 88.4)	(2020: 82.7)	(2020: 84.9)
	Admissions	91.7	85.6	85.5
		(2020: 91.1)	(2020: 85.6)	(2020: 86.7)
	Nurses	90.5	82.2	86.7
		(2020: 89.4)	(2020: 82.0)	(2020: 86.8)
	Physicians	92.6	88.8	88.9
	(2020: 92.1)	(2020: 86.6)	(2020: 88.7)	
Tests and treatments	89.9	83.6	84.5	
	(2020: 89.4)	(2020: 88.0)	(2020: 85.3)	
Personal issues	89.3	82.5	85.5	
	(2020: 88.6)	(2020: 81.6)	(2020: 85.3)	
Discharge	88.9	82.8	82.1	
	(2020: 88.5)	(2020: 82.2)	(2020: 82.0)	

TABLE 3: PRESS GANEY® EMERGENCY CENTRE RESULTS FOR THE 2021 CALENDAR YEAR

	SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST ¹
Participating since	Not participating	April 2020	April 2020
Total participating facilities	n/a	38	7
Total surveys collected ²	EC service line not yet surveyed	18 500	1 307
		(2020: 9 529)	(2020: 304)
Likelihood of recommending the hospital/clinic		79.3%	70.2%
		(2020: 80.8%)	(2020: 76.1%)
Mean score out of 100	Overall	78.5	73.7
		(2020: 79.6)	(2020: 76.4)
	Arrival	76.7	73.0
		(2020: 78.0)	(2020: 76.5)
	Nurses	82.3	78.6
		(2020: 83.3)	(2020: 81.6)
Doctors	83.0	77.6	
	(2020: 83.9)	(2020: 80.7)	
Tests	75.1	66.6	
	(2020: 77.1)	(2020: 69.7)	
Billing services	73.3	74.6	
	(2020: 73.2)	(2020: 72.4)	

TABLE 4: PRESS GANEY® AMBULATORY SURGERY RESULTS FOR THE 2021 CALENDAR YEAR

	SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST	
Participating since	April 2020	April 2020	April 2020	
Total participating facilities	2	8	9	
Total surveys collected ²	1 663	4 030	651	
	(2020: 628)	(2020: 1 581)	(2020: 100)	
Mean score out of 100	Overall	91.3	91.8	87.7
		(2020: 89.0)	(2020: 91.5)	(2020: 90.2)
	Nurses	92.9	92.7	87.3
		(2020: 90.4)	(2020: 92.5)	(2020: 88.8)
	Care provider	91.1	90.4	88.7
	(2020: 89.4)	(2020: 90.1)	(2020: 93.0)	
Personal issues	88.7	90.4	86.4	
	(2020: 85.5)	(2020: 90.1)	(2020: 87.9)	

Notes

¹ Reflecting EC units at Dubai hospitals only; Abu Dhabi units were not surveyed.

² The 2020 results are for a nine-month period; surveying started on 1 April 2020.

PATIENT EXPERIENCE CONTINUED

TABLE 5: PRESS GANEY® MEDICAL PRACTICE RESULTS FOR THE 2021 CALENDAR YEAR

		SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
Participating since		Not participating	Not participating	October 2014
Total participating facilities				7
Total surveys collected				43 896  (2020: 34 265)
Likelihood of recommending the hospital/clinic				82.0%  (2020: 88.6%)
Mean score out of 100	Overall			81.5  (2020: 86.0)
	Access			79.3  (2020: 86.4)
	Nurse/assistant			83.9  (2020: 88.9)
	Care provider			85.9  (2020: 88.8)
	Personal issues			85.8  (2020: 86.2)



North Wing at Mediclinic City Hospital

PROGRESS IN 2021

The various initiatives listed below are in line with the Press Ganey® priority index per geography, and, as such, are not comparable across the Group.

SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
<ul style="list-style-type: none"> Optimised email recording process in several hospitals Informed patients about visitor restrictions due to pandemic prior to their hospital stay and through in-hospital posters Provided additional reading corners for insured and semi-insured patients and renovated existing lounges 	<ul style="list-style-type: none"> Continued client engagement initiative Developed initiative for ECs to enhance reputation and teamwork through multidisciplinary focus Standardised contracts and service-level agreements to improve complaint processes of outsourced units Renewed focus on service recovery element of complaint resolution 	<ul style="list-style-type: none"> Actioned various initiatives to improve nurses' friendliness, problem-solving and listening skills, as well as patient flow in outpatient departments and follow-up communication with patients Developed AIDET (acknowledge, introduce, duration, explanation and thank you) into mandatory annual competency for nurses See page 27 Rolled out GST (greet, smile, thank) campaign at Abu Dhabi hospitals Celebrated employees who go above and beyond and receive positive feedback through Press Ganey® comments

PATIENT EXPERIENCE CONTINUED

FOCUS AREAS IN 2022¹

	GROUP	SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
Inpatient				
Staff worked together to care for you	●	●		
Nurses' attitude towards requests	●	●		
Attention to needs	●	●		
Intentional rounding			●	●
Additional		<ul style="list-style-type: none"> Nurses Visitors and family Hand hygiene 	<ul style="list-style-type: none"> Reintroduction of food service process Bedside handover Complaint resolution and service recovery Leadership rounding 	<ul style="list-style-type: none"> Discharge processes Information nurses gave to prepare for procedure
Emergency centres				
	<ul style="list-style-type: none"> Staff cares about you as a person Nurses' attention to your needs 	n/a	<ul style="list-style-type: none"> Enhance reputation Service recovery Staff working together as a team Leadership rounding 	<ul style="list-style-type: none"> Information on delays experienced Overall rating of care/ treatment Being kept informed regarding condition/ treatment

	GROUP	SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
Ambulatory services				
Staff worked together to care for you	●	●		●
Nurses' response to concerns and questions	●	●		●
Information nurses gave to prepare for procedure	●	●		●
Service recovery and individual unit action plans			●	

Note

¹ Based on patient feedback via Press Ganey® and other feedback channels.



SHAPING OUR TOMORROW... WITH CLIENT CENTRICITY

THE KEY TO CONNECTING



All the doctors and employees made me feel so supported as a person and not just a patient.

The start of 2021 saw communications specialist Donna McHarg receiving cancer treatment at our Airport Road Hospital in Abu Dhabi. 'Being diagnosed with breast cancer during a global pandemic was intense. It was tough not being able to have our family members physically here to support us,' she says.

Fortunately, her treatment team stepped into the breach. 'All the doctors and employees made me feel so supported as a person and not just a patient.'

To ensure this is the case for every person we treat, we continuously focus on enhancing client experience. In the Middle East, we implemented the AIDET concept to give employees a clearly defined structure for connecting with clients. These touchpoints orientate the client and provide essential information during every encounter.

'AIDET is a powerful way to communicate with people who are often anxious and feeling vulnerable,' says Sinéad van der

Hoeven, Nursing Director at Airport Road Hospital.

'It is not a script, but a simple, consistent framework to incorporate fundamental patient communication elements into every interaction.'

The impact of AIDET's systematic approach is evidenced by employees' experience at the hospital. In January 2021, the medical surgical unit initiated a quality improvement project based on AIDET. Employee communication reinforced the framework while a skit showcasing the principles in action made the concept come alive. Monthly assessments reviewed employees' protocol use.

Prior to the project's implementation, the majority of nurses in the unit scored below 60% in a self-audit of their communication skills. But by consistently implementing AIDET, they made a major impact on the way patients experienced interactions. Out of 326 patients surveyed by the end of 2021,



Donna McHarg

73% were very satisfied with their client experience.

'The AIDET initiative improved communication between employees and clients, which not only reduced client complaints, but increased positive feedback. Nurses received so much appreciation from clients, they have been boosted in their daily jobs,' says Sinéad.

The impact of a better client experience extends beyond satisfaction levels. When patients trust their healthcare provider, they are more likely to adhere to medication advice, become engaged in their own health and form long-term relationships.

This was exactly what happened with Donna McHarg, who chose Mediclinic for her treatment after an initial mammogram appointment. 'The efficient and professional service I received was really the main factor for my decision to continue my breast cancer treatment at Airport Road,' she says.

Acknowledge

Introduce

Duration

Explanation

Thank you



56 seconds The average time in which a successful patient connection can be formed, according to Press Ganey® research

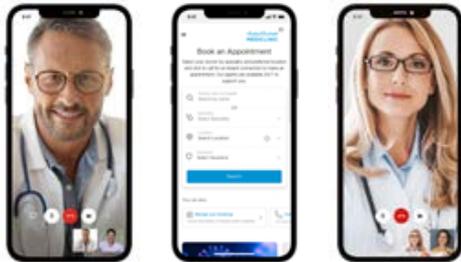
HEALTH AWARENESS

'Expertise you can trust' is the promise we make. In addition to providing safe, quality and cost-effective healthcare, we empower our clients to actively manage their health.

HEALTHCARE ON CALL

On 1 June 2021, we launched MyMediclinic 24x7 in the Middle East, giving clients the ability to book and manage appointments on their smartphone at their own convenience. Additionally, users can search for doctors, view profiles of healthcare practitioners and participate in video consultations.

Telemedicine appointments have proven very popular, with approximately 68 550 teleconsultations done in 2021.



HELLO, MEDICLINIC!

When clients need to find a healthcare provider, the Mediclinic Engagement Centre in Southern Africa is there to help. Whether by phone, email, WhatsApp or SMS, clients can contact our centre for referral to a relevant practitioner.



TOP OF MIND

Throughout the year, we ran awareness and education campaigns to empower the public. Making use of social media, radio, video, websites and webinars, we provided authoritative, trusted information.

The topic of breast cancer is a good example. With this being the world's most prevalent cancer, according to the WHO, all our divisions focus on it - often in novel, attention-grabbing ways. In Switzerland, our hospitals were lit up in pink, and postcards offered information on self-examination. Our Southern African operations shared practical detail about mammograms to promote early detection. In the Middle East, specialists delivered need-to-know facts during an elevator ride, showing how little time is needed to impart life-saving knowledge.



#OURBESTSHOT

Since the COVID-19 vaccination process in Southern Africa lagged behind Europe and the Middle East, it was vital to drive vaccinations. A multidisciplinary Vaccine Committee met regularly to ensure successful roll-out across 43 Mediclinic centres. An awareness and education campaign encouraged our community to get vaccinated via social media posts, videos and public announcements.



PROFESSIONAL DEVELOPMENT

To ensure our clients get the very best care, we promote continuous learning among our medical professionals. In the Middle East, the annual Mediclinic Middle East Research Conference was held on 27 and 28 May 2021. Bringing together international speakers and Mediclinic experts, the event addressed topics ranging from surgical techniques to healthcare informatics. On 12 November 2021, the annual Hirslanden Doctors' Summit returned as a hybrid event, with insightful presentations for partner doctors. Group CEO Dr Ronnie van der Merwe and Mediclinic Board Chair Dame Inga Beale joined the event virtually to discuss the future of healthcare.

WELCOME TO THE WORLD

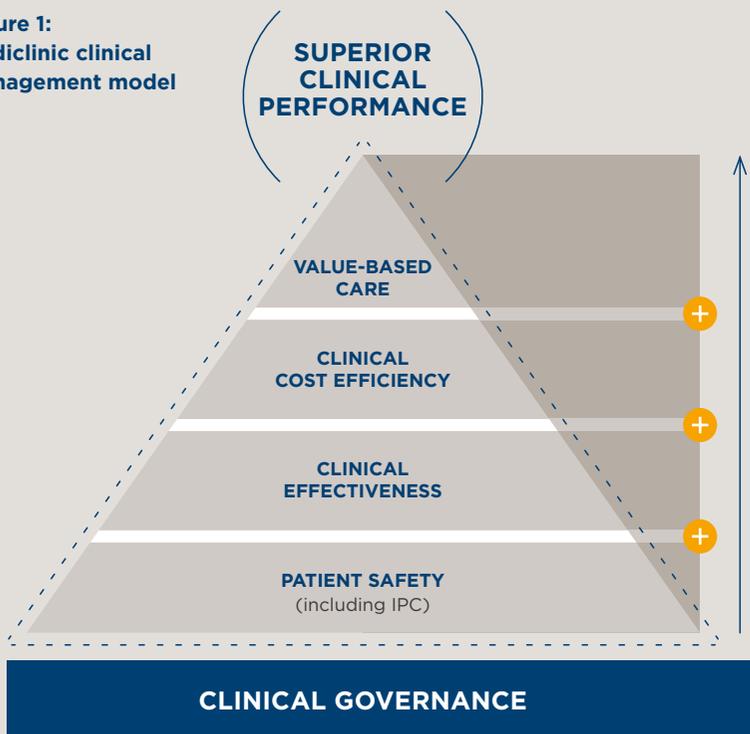
Expectations around giving birth abound; yet, the reality rarely matches what the media portrays. In Switzerland, we ran an awareness campaign featuring an intimate portrait of an actual delivery. The photograph broke taboos around the depiction of birth, earning a nomination as top publicity image in the country and generating open discussion around childbirth.

BETTER WAYS TO CARE

CLINICAL PERFORMANCE

To ensure the best possible outcomes for patients, we use a simple, yet powerful clinical performance framework built on a sound clinical governance foundation – collectively, the clinical management model.

Figure 1:
Mediclinic clinical management model



The model supports a structured approach to clinical management through a clinical governance foundation layer that provides the structures and processes required for clinical performance.

STRENGTHENING THE ACCOUNTABILITY FRAMEWORK

To improve efficiency and enable seamless integration of information flow, Mediclinic pursues Ward-to-Board accountability. To this end, the CPC has been replicated at divisional and hospital level. By aligning the committees and reviewing divisional differences, we gain valuable information on organisational accountability pathways and structure. In addition, clinical services and governance committees call on independent experts to act as 'positive dissenters' where possible.



CLINICAL PERFORMANCE CONTINUED

Figure 2: Group clinical performance and governance structure



TABLE 6: DIVISIONAL CPC SUMMARY

	SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
Meetings held	4	4	4
Summary	<ul style="list-style-type: none"> • External consultant added to divisional CPC • Quality boards established at each facility 	Subcommittees active at 43 hospitals	Hospitals and clinics divided into clusters, each with a clinical quality and patient safety committee, which meets regularly

IDENTIFYING THE BEST-VALUE TECHNOLOGY

To ensure capital is allocated strategically and investments in equipment and interventions are sound, we use health technology assessments ('HTAs'). These measure clinical and cost effectiveness as well as the broader impact of healthcare treatment and tests on those who plan, provide or receive care. Research focuses on evidence of a technology's effectiveness by comparing it to the current standard intervention.

The HTA and Research function will be integrated into the Group Innovation function to provide centrally shared services that enable better clinical decision-making and aid clinical standardisation.

2021 HTAs

- Update of existing HTA on extracorporeal membrane oxygenation (ECMO)
- Artificial intelligence ('AI') system in endoscopy (Olympus ENDO-AID)
- AI system in neurology (RapidAI)
- Image-guided surgical navigation in neurosurgery (Brainlab Curve)
- Haemodynamic monitoring system (HemoSphere)
- Diagnostic and treatment developments in Alzheimer's disease (Aduhelm and beta-amyloid tests)
- Impact of vaccine development for HIV and malaria
- Horizon scanning summaries focused on vaccine development, cancer, cardiovascular disease, mental health and telehealth

HTAs completed during the year

8 2020: 2

SHAPING OUR TOMORROW... WITH ROBOTIC TECHNOLOGY

ROBOTIC SURGERY

robot (n.)

From the Czech word *robot* = forced labour, servitude

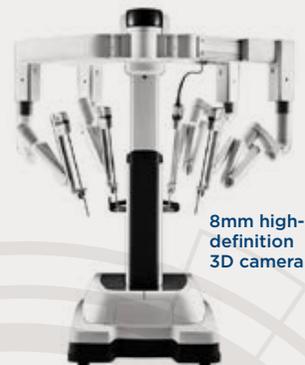


da Vinci Surgical System

1 SURGEON CONSOLE: monitor and master controls



3D visualisation with 10x magnification of operating area



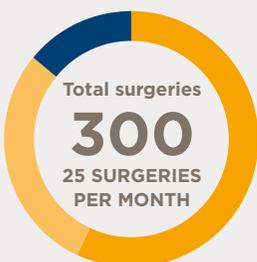
2 SURGICAL CART: 3-4 robotic arms

8mm high-definition 3D camera

3 COMPUTER CONTROL TOWER



Total da Vinci surgeries by specialty (Jan-Dec 2021)



Switzerland
8 DA VINCI SURGICAL SYSTEMS

Southern Africa
1 DA VINCI SURGICAL SYSTEM

The Middle East
1 DA VINCI SURGICAL SYSTEM

Removal of prostate gland most frequent operation performed worldwide with da Vinci

- OTHER ROBOTIC AIDS**
- 2 Mako orthopaedic robots
 - 1 ROSA robotic assistant for knee replacement,
 - 1 ISR'obot Mona Lisa for prostate biopsy
- Pilot programme used Mako orthopaedic robot in 126 knee arthroplasty cases in 2021, 2 orthopaedic robots to be added in 2022
- ✓ Smaller incisions
 - ✓ Less scarring
 - ✓ Lower risk of infection
 - ✓ Less blood loss
 - ✓ Decreased pain
 - ✓ Shorter hospital stay
 - ✓ Faster overall recovery
 - ✓ Quicker return to activity
- 1 NAVIO handheld device for knee surgery

1985
Arthrobot, first robot used for surgery

2000
United States Food and Drug Administration ('FDA') approval for da Vinci Surgical System

2005
First surgery with da Vinci at Klinik Hirslanden

circa 2010
1 000 robotic surgeries at our Swiss operations

2014
Our Durbanville hospital acquires da Vinci Surgical System

2020
Da Vinci Surgical System introduced at our City Hospital

2021
500th robotic radical prostatectomy at our Durbanville hospital

2022
Introduction of new robotics training programme at our City Hospital

CLINICAL PERFORMANCE CONTINUED

GAINING GREATER INSIGHT THROUGH RESEARCH

Research is conducted across the geographies, making Mediclinic an attractive partner for multinational, multisite studies.

In Switzerland, a clinical trials unit ('CTU') and scientific board evaluate and approve research requests. External expertise is sought at our operations in Southern Africa, which consult with registered local ethics committees before presenting proposed studies to the internal research approval committee. Research studies are most active in the Middle East. Research structures include an ethics committee, a research advisory group, a CTU and a contract research organisation. All divisions maintain their own research register, elements of which are combined into a Group research register.

Approved medical research studies

Switzerland	31	2020: 25
Southern Africa	48	2020: 59
The Middle East	50	2020: 121
Group Clinical Services	2	2020: 0

STREAMLINING PATIENT DATA

EHRs not only transform both clinical and business processes, but also:

- improve quality, safety and efficiency;
- reduce health disparities;
- improve care coordination;
- enable client engagement;

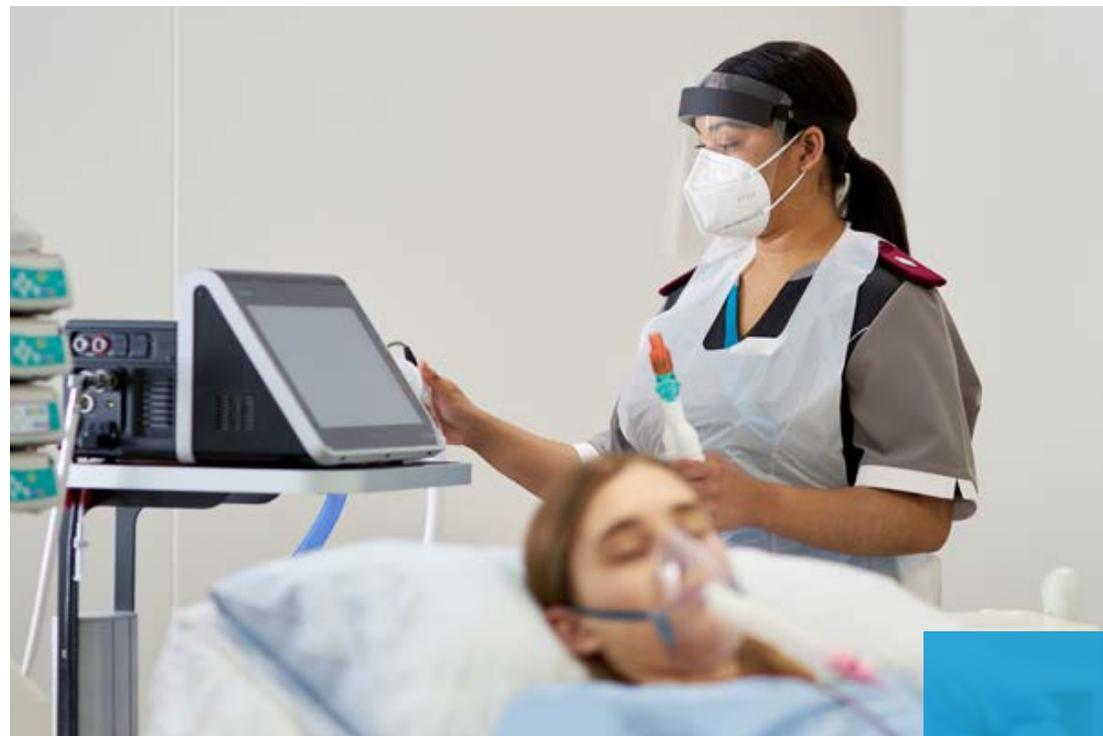
- improve population and public health;
- protect privacy and personal health information; and
- enable expansion into previously untapped markets by laying the foundation for AI-enhanced diagnostics, telemedicine and remote sensing, thereby future-proofing the organisation.

Establishing a comprehensive digital backbone is a priority across all the divisions, in line with Mediclinic's strategic goal to transform our services and client engagement through innovation and digitalisation (goal 3).

In Switzerland, EHR and patient data management systems are being implemented and a radiology system was installed at five facilities in 2021.

In Southern Africa, a task force is evaluating and managing the process of selecting and implementing an EHR solution suited to the local operating and fiscal environment. The CareConnect health information exchange ('HIE') project in Southern Africa moved into a user acceptance testing ('UAT') phase in 2021. We participated in the first UAT phase, alongside Netcare and Discovery, from April to July 2021. To incorporate the HIE data into our Unified Care Record and build out business-use cases and implementation plans for 2022, integration with a third-party development company is underway.

All Mediclinic hospitals in the Middle East are now on Bayanaty. The current focus is on upgrading the Bayanaty platform to a new version, followed by roll-out in the new facilities. The upgrade is expected to be completed by mid-May 2022. We were the first private healthcare provider in the UAE to integrate our EHR with the HIE in Dubai and Abu Dhabi.



Establishing a comprehensive digital backbone is a priority across all the divisions.



CLINICAL PERFORMANCE CONTINUED

CLINICAL INDICATORS

Each aspect of the clinical performance framework – patient safety, clinical effectiveness, clinical cost efficiency and value-based care – builds on the previous one.

We measure more than 150 clinical indicators monthly in line with a standardised set of definitions and classifications. Many of these outcome indicators are self-reported while others are derived from administrative data. These indicators are monitored for trends and used to identify opportunities for improvement. The hospitals closely monitor their results and compare themselves with other hospitals in the same division.

Clinical indicator improvements during the year include the roll-out of standard safety event reports, enabled by implementation of The Patient Safety Company software across the Group; the implementation of a standard taxonomy for complaint classification; the refinement of existing indicator definitions; and the expansion of categories.

The scope of services and delivery model of each division differ significantly. Note the following when reviewing the clinical performance results reported on pages 35–39:

- All indicators are reported for the calendar year to ensure complete and comparable results.
- Figures in the **2022 Clinical Services Report** may differ from the previous report where additional data became

available after publication or where criteria changed (refer to page 34).

- Statistical significance is determined for a subset of the indicators and calculated by determining whether there is a statistical difference when values from prior periods are compared (refer to page 34).
- Not all indicators are directly comparable due to regulatory requirements, e.g. Simplified Acute Physiological Score ('SAPS') II is measured in Switzerland while SAPS 3 is measured in Southern Africa and the Middle East.
- Different inherent patient population demographics in addition to the proportional distribution and range of services per division should be considered when indicators are compared across divisions.
- The current reported clinical performance is still impacted by the COVID-19 burden.

BENCHMARKING

We use benchmarking to compare results internally as well as against industry leaders. However, there is limited international standardisation of clinical outcome measures, which limits opportunities for external benchmarking. Where comparable, facilities and divisions are benchmarked against each other to identify excellence, best practices and opportunities for improvement. Additionally, we track facility performance over time. In the selection of new clinical indicators, we give preference to measures tied to international standards and with comparable external benchmarks.

TABLE 7: COMPARABLE BENCHMARKS OF INTERNATIONAL CLINICAL QUALITY¹

INDICATOR	SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
VON	n/a	●	●
SAPS II	●	n/a	n/a
SAPS 3	n/a	●	●
The Initiative on Quality Medicine ('IQM') ²	●	n/a	n/a
Robert Koch Institute – catheter-associated urinary tract infections ('CAUTI'), central line-associated bloodstream infections ('CLABSI') and ventilator-associated pneumonia ('VAP'), as per Centres for Disease Control and Prevention definitions	Selected patient groups only	●	●
Press Ganey® patient experience index	●	●	●
NPS®	●	●	●
INDICATOR SUBSETS			
Weighted adverse outcome score ('WAOS') ³	●	●	●
Adverse outcome score ('AOS') ³	●	●	●
Severity index ('SI') ³	●	●	●

Notes

¹ Not all comparable benchmarks are included in the report.

² Due to the pandemic, extraordinary changes in the populations of the indicators were identified and no target achievements were disclosed for 2021.

³ WAOS, AOS and SI are weighted scores to quantify a subset of adverse events in lower-risk deliveries.

CLINICAL PERFORMANCE CONTINUED

DISCREPANCIES

The section that follows from page 35 provides a summary of the events that have occurred in the divisions during the year. As the effect of actions becomes evident over time, the data changes, resulting in indicators which fluctuate slightly after the reporting period. These changes can typically be contributed to one or more of the following operational reasons:

- reclassification of an event after investigation;
- delay in receiving infection test results (e.g. microbiology culture results);
- delay in data capturing;
- delay in billing days and patient counts;
- finalisation of accounts (e.g. accounts for complex cases); and/or
- discharge of patients to palliative care facilities.

Our new safety event management system, implemented in 2020, provides a more detailed and comprehensive safety event taxonomy, which enables enhanced definition of certain existing indicators and the introduction of supplementary information such as harm levels per event.

KEY TERMS



IPC BUNDLES

IPC bundles are sets of evidence-based practices which, when performed consistently, significantly improve patient outcomes and prevent device-related and procedure-related healthcare-associated infection ('HAI').



STATISTICAL SIGNIFICANCE

Statistical significance is determined to identify special causes that highlight best practices or areas for improvement rather than random change in outcomes.

Statistical significance in this report is calculated by performing a hypothesis test. The indicators reported represent the means of their respective distributions and the hypothesis test examines if the means for successive years are different distribution (null hypothesis) or not (alternative hypothesis). A year-on-year difference in clinical performance is deemed to be statistically significant if the p-value for the appropriate statistical test exceeds a 5% critical limit. This result allows us to conclude if a change in the measured indicator can be attributed to normal statistical variation or is the result of a change in an external or environmental factor. The test

statistic for the hypothesis test and the distribution of the test statistic are dependent on the type of data being reported on.

Where variation in the current year's data is found to be statistically significant compared to prior reporting periods, the applicable data in the graph is marked with an orange dot and an explanation is provided, if available (see example below). In these instances, it is unlikely that the changes in the numbers are due to chance.

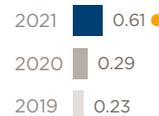
Adverse events

The UAE

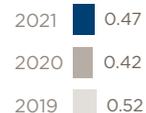
Rate per 1 000 patient days

- Statistically significant

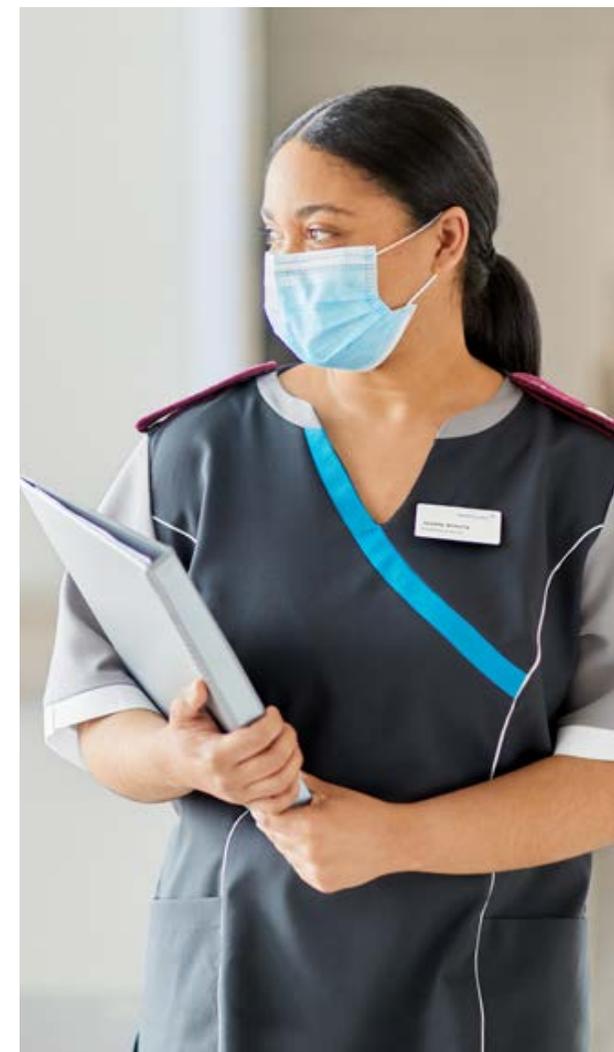
Hospital-associated pressure ulcers



Falls



Medication errors



PATIENT SAFETY

Achieving patient safety requires a collective commitment to building a patient safety culture. This means each employee focuses on reporting and learning from patient safety events. An open culture where teams are comfortable discussing patient safety events and concerns is fostered through the inclusive completion of systems analysis of serious reportable events ('SREs') in hospitals. Fundamental to this is the 'just culture' (Frank framework), wherein employees involved in adverse events are treated fairly. The result is an informed culture: teams learn from patient safety events to mitigate future incidents. Moreover, they also learn from one another when things go right by sharing best practices.

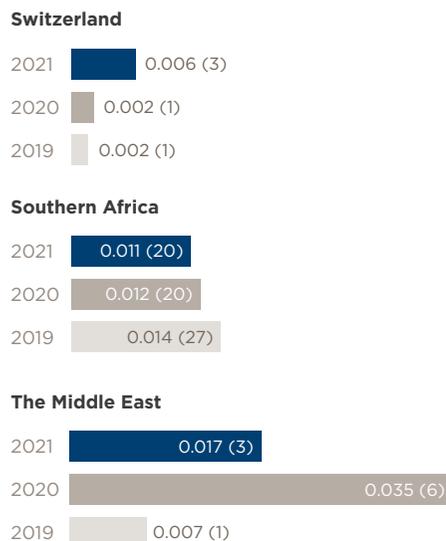
COVID-19 negatively impacted some of the key safety indicators in Southern Africa, as is seen in higher mortality, fall, pressure ulcer and infection rates, as well as increased antimicrobial use. These changes were mainly due to the high patient numbers treated during the pandemic peaks and the impact of COVID-19 on patient condition. In the Middle East, most of the clinical indicators that were negatively impacted by the pandemic improved significantly as the vaccination rate increased and the effect of the pandemic peaks subsided.

NEVER EVENTS

We adhere to the WHO surgical safety checklist to ensure standard practices are followed, increase teamwork and communication during surgery, decrease the risk of errors and prevent adverse events.

The implementation of the surgical safety checklist remains a key focus area. We report on only a subset of surgical and procedural never events at present, focusing on the correct identification of patients, procedures and sites, and the prevention of retained foreign objects.

Figure 3: Never events¹



Note

¹ The never event rate is reported to the third decimal to negate the obscuring effect of rounding.

ADVERSE EVENTS

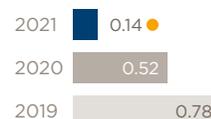
An important aspect of improving quality and safety in patient care is preventing adverse events that could harm patients, including hospital-associated pressure ulcers, falls and medication errors.

SWITZERLAND

Figure 4: Adverse events
Rate per 1 000 patient days

● Statistically significant

Hospital-associated pressure ulcers



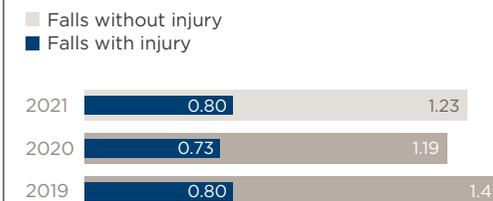
Falls



Medication errors



Figure 5: Falls breakdown
Rate per 1 000 patient days



The 73.86% decrease in the hospital-associated pressure ulcer rate from 0.52 in 2020 to 0.14 in 2021 is statistically significant. The change in patient demographics due to COVID-19 and improvement projects contributed to the reduction in the rate.

The fall rate increased by 5.73% from 1.92 in 2020 to 2.03 in 2021.

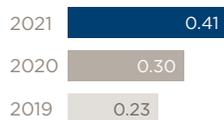
The division commenced reporting on medication errors in 2018. The 16.56% decrease in the medication error rate from 1.51 in 2020 to 1.26 in 2021 is statistically significant and was influenced by improved reporting through the electronic safety reporting system and a focus on improving medication safety.

PATIENT SAFETY CONTINUED

SOUTHERN AFRICA

Figure 6: Adverse events
Rate per 1 000 patient days

Hospital-associated pressure ulcers



Falls



Medication errors



Figure 7: Falls breakdown
Rate per 1 000 patient days

■ Falls without injury
■ Falls with injury



The rate of hospital-associated pressure ulcers increased by 36.67% from 0.30 in 2020 to 0.41 in 2021. The fall rate decreased by 0.88% from 1.13 in 2020 to 1.12 in 2021. Medication errors per 1 000 patient days reduced by 4.05% from 0.74 in 2020 to 0.71 in 2021. The changes reported are not statistically significant.

Additional mechanisms involving pharmacists for reporting near-miss medication events related to prescription and dispensing have been implemented. These show where pharmacists intervene with regard to appropriate prescription of antibiotics and other medication, and where dispensing errors are corrected before medication is given to the patient. Pharmacists are also well placed to identify certain administration errors which may not have been identified by nursing employees in the wards. This reporting is supplementary to the safety event management system, quantitative, and dependent on time availability of pharmacists. The data collection to date has been used to guide hospitals to identify specific areas for quality improvement and prevention of medication errors, and to provide a measurement tool to track progress.

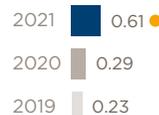
The total number of reported pharmacy interventions (near-miss medication errors) captured increased by 2.5% from 11 812 in 2020 to 12 116 in 2021. The number of reported pharmacy interventions was lower in January-February and June-July during the second and third peaks of the COVID-19 pandemic in 2021. Pharmacists could not review as many prescriptions as usual due to fewer patient admissions, a temporary termination of team rounds, restriction of movement in hospitals and reallocation of clinical and ward pharmacists to assist with dispensing.

THE MIDDLE EAST

Figure 8: Adverse events
Rate per 1 000 patient days

● Statistically significant

Hospital-associated pressure ulcers



Falls

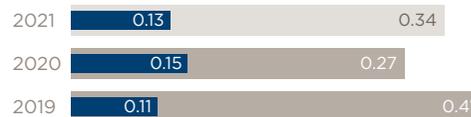


Medication errors



Figure 9: Falls breakdown
Rate per 1 000 patient days

■ Falls without injury
■ Falls with injury



The increase in the hospital-associated pressure ulcer rate by 110.34% from 0.29 in 2020 to 0.61 in 2021 is statistically significant and was mainly due to COVID-19. All patients are risk-assessed for pressure injuries, and appropriate preventive measures are implemented.

The 11.90% increase in the fall rate from 0.42 in 2020 to 0.47 in 2021 is not statistically significant. Fall awareness and prevention remain focus areas for our Middle East facilities.

The medication error rate increased by 3.83% from 8.87 in 2020 to 9.21 in 2021 - not a statistically significant change. There is a continued focus on medication management. Both outpatient and inpatient medication errors are reported and classified as prescription, dispensing and administration errors. Focused medication audits and physician education and training are ongoing in all facilities. Medication management policies and double-checking of medication before dispensing are continuously reinforced.

PATIENT SAFETY CONTINUED

INFECTION PREVENTION AND CONTROL

Preventing infection is paramount to patient safety. Activities include standardising processes around infection control based on international best practices; implementing care bundles around the prevention of surgical site infections ('SSIs'), VAP, CLABSI and CAUTI; and running surveillance projects with multilayer methodology.

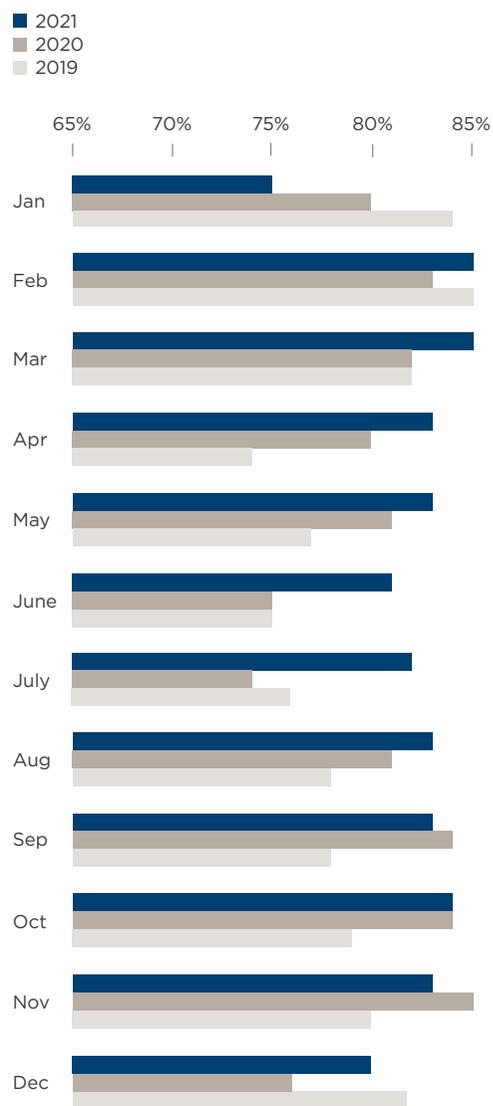
Each division has central IPC specialists who standardise infection control policies and procedures for the respective geography. Each facility has IPC team members who receive regular training and monitor compliance to the IPC bundles and any infections.

HAND HYGIENE

SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
Adherence to hand hygiene procedures is essential to prevent HAIs and compliance is evaluated through direct observation by IPC specialists. Hand hygiene fluid consumption is monitored per hospital and department, and the IPC specialists provide training.	Hand hygiene compliance results showed a 2.1% improvement from 80.43% in 2020 to 82.10% in 2021. Hospitals continue to focus on interventions to improve hand hygiene compliance. There is a direct correlation between improved hand hygiene compliance and the reduction in HAI rates.	Hand hygiene data is collected at all facilities using a standardised tool. Data is reported to Infection Control committees of each cluster to address non-compliance. City Hospital has installed a hand-washing monitoring system that captures 100% of hand hygiene events with the use of badges and location readers. The increase in hand hygiene compliance was influenced by COVID-19.

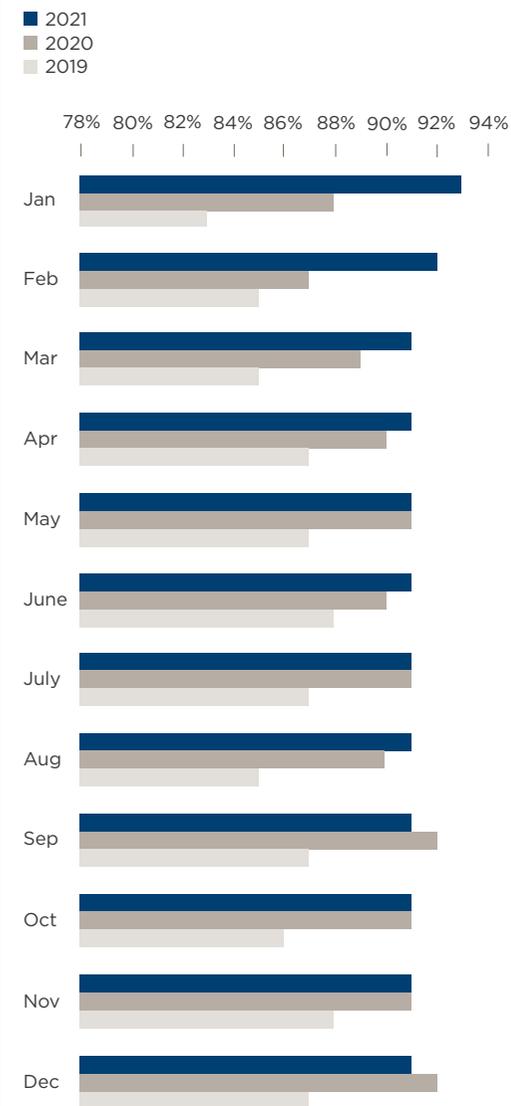
SOUTHERN AFRICA

Figure 10: Hand hygiene compliance rate



THE MIDDLE EAST

Figure 11: Hand hygiene compliance rate



PATIENT SAFETY CONTINUED

HEALTHCARE-ASSOCIATED INFECTIONS

SWITZERLAND

The device-associated and procedure-specific HAI rate remained stable in 2021. As these conditions are rare, the calculated rates can be sensitive to single events.

SOUTHERN AFRICA

Figure 12: HAIs

Rate per 1 000 patient days



Southern Africa has a high burden of infectious diseases, unlike Switzerland and the Middle East, necessitating a continued focus on the identification of infectious diseases and community-acquired infections upon admission and the prevention of HAI.

The 14.94% increase in the HAI rate from 1.74 in 2020 to 2.00 in 2021 is not statistically significant and was mainly the result of an increase in the hospital occupancy rate and patient susceptibility due to COVID-19. Hospitals continue to focus on interventions to improve compliance and on the five moments of hand hygiene as outlined by the WHO.

THE MIDDLE EAST

Figure 13: HAIs

Rate per 1 000 patient days

● Statistically significant



The 7.59% increase in the HAI rate from 0.79 in 2020 to 0.85 in 2021 is statistically significant and was influenced by COVID-19. There is a continued focus on current IPC practices in the division, with a specific focus on the implementation of care bundles in the critical care units ('CCUs') and compliance with antibiotic prophylaxis guidelines.

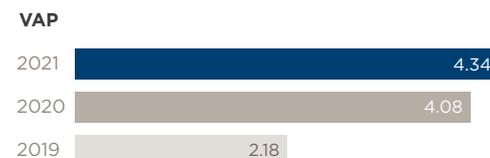
DEVICE-ASSOCIATED INFECTIONS

SWITZERLAND

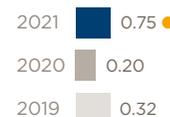
Figure 14: Device-associated infections

Rate per 1 000 device days

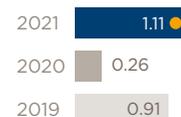
● Statistically significant



CLABSI



CAUTI



The CLABSI rate increased by 275.00% from 0.20 in 2020 to 0.75 in 2021 while the CAUTI rate increased by 326.92% from 0.26 in 2020 to 1.11 in 2021, both statistically significant changes. The increase in both indicators was influenced by COVID-19.

The VAP rate increased by 6.37% from 4.08 in 2020 to 4.34 in 2021 – not a statistically significant change – and was mainly due to COVID-19 patients requiring longer ventilation. The IPC specialists have taken preventive actions.

SOUTHERN AFRICA

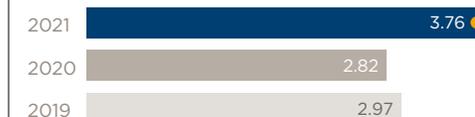
Figure 15: Device-associated infections

Rate per 1 000 device days

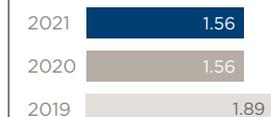
● Statistically significant



CLABSI



CAUTI



The CLABSI and VAP device-associated infection rates both increased during the year: CLABSI by 33.33% from 2.82 in 2020 to 3.76 in 2021, a statistically significant change, and VAP by 10.76% from 3.16 in 2020 to 3.50 in 2021. The CAUTI rate remained unchanged at 1.56 in 2021. The increase in the device-associated infection rates was influenced by COVID-19 and higher occupancies in the CCUs.

PATIENT SAFETY CONTINUED

Figure 16: SSIs

Rate per 1 000 theatre cases

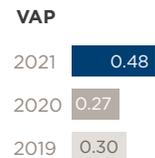


The 5.08% decrease in the rate of SSIs from 2.36 in 2020 to 2.24 in 2021 is not statistically significant. The decrease was mainly due to a reduction in patient volumes, a strong focus on hand hygiene and environmental cleaning in theatre, and improved SSI care bundle compliance.

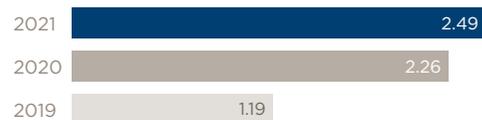
THE MIDDLE EAST

Figure 17: Device-associated infections

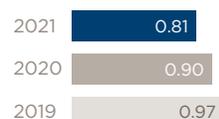
Rate per 1 000 device days



CLABSI



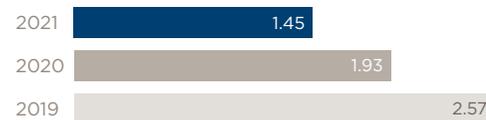
CAUTI



The CAUTI rate decreased by 10.00% from 0.90 in 2020 to 0.81 in 2021, which is mainly due to the reinforcement and strict adherence to care bundles in ICUs. The CLABSI and VAP rates increased by 10.18% from 2.26 in 2020 to 2.49 in 2021 and by 77.78% from 0.27 in 2020 to 0.48 in 2021, respectively. These changes are not statistically significant.

Figure 18: SSIs

Rate per 1 000 theatre cases



The 24.87% decrease in the SSI rate from 1.93 in 2020 to 1.45 in 2021 is not statistically significant. SSIs remain a focus area for improvement in the division. Perioperative evidence-based interventions are implemented, including SSI care bundles, standardised antibiotic prophylaxis guidelines and preoperative skin preparation protocols.

ANTIMICROBIAL STEWARDSHIP

SWITZERLAND

The burden of resistant germs in Switzerland is low. Colonisation of patients with multidrug-resistant organisms is monitored on a monthly basis. Antibiotic consumption is reported to the Society of Pharmacists and benchmarked against other Swiss hospitals.

SOUTHERN AFRICA

Considering the high burden of infectious diseases in Southern Africa, it is critical to effectively manage antimicrobial resources and prevent multidrug resistance. Antimicrobial resistance increases with growing utilisation; therefore, our Southern African hospitals monitor total antimicrobial utilisation in defined daily doses ('DDD').

The undesired surgical prophylaxis rate decreased by 1.92% from 3.12% in 2020 to 3.06% in 2021, due to improved use of the surgical prophylaxis guidelines and lower surgical volumes. These indicators are based on administrative and billing data and are continuously updated and refined.

In 2021, the total antimicrobial usage and prolonged treatment exposure rate increased by 7.26% and 11.27%, respectively, mainly due to increased usage during the COVID-19 waves in July and December. The widespread use of cortisone to treat symptomatic COVID-19 patients led to an increase in systemic fungal infections and the use of antifungal medication.

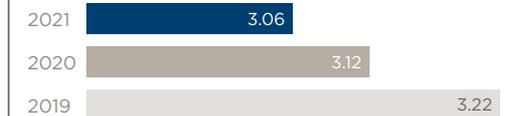
Figure 19: Antimicrobial utilisation indicators

DDD

Rate per 100 patient days



Undesired agents utilised for surgical prophylaxis
Percentage of undesired prophylaxis (%)



Prolonged treatment

Rate per 1000 exposures



Improvement in the utilisation of antimicrobials is driven by retrospective audits and feedback interventions by the clinical and ward pharmacists in each hospital. Their interventions include discussions with the prescribing medical practitioner to improve appropriate dose, duration and frequency of antimicrobials, and to stop or change antimicrobials as soon as investigations demonstrate the causative organism's resistance profile.

THE MIDDLE EAST

Adult and paediatric antibiotic guidelines and the antibiotic stewardship programme were standardised across the division. Antibiotic guideline compliance is monitored continuously.

CLINICAL EFFECTIVENESS

Clinical effectiveness measures whether the indication for the treatment was correct and whether the care was rendered timeously. The divisions participate in various international comparable outcome databases, and also continuously measure and refine a set of internal indicators.

MORTALITY

The pandemic was the biggest contributor to the increase of both the in-hospital mortality rates and SAPS II/3 indices. These models will be refined in future as they inflate the indices due to underestimating COVID-19's mortality risk.

SWITZERLAND

Figure 20: Inpatient mortality rate
Percentage of admissions (%)



The inpatient mortality rate remained the same in 2021 at 1.05%, still influenced by the higher mortality rate of COVID-19 cases and changes to the case mix due to fewer elective admissions.

Adult critical care mortality - SAPS II

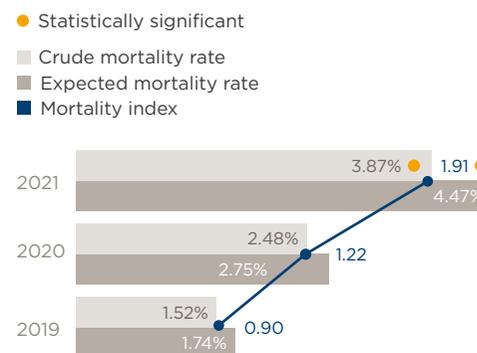
We participate in the mandatory dataset for CCUs in Switzerland. SAPS II is a physiological mortality prediction model that utilises patient attributes to calculate an expected mortality value. The expected mortality rate is compared to the actual mortality rate to calculate a mortality index.

TABLE 8: SAPS II MORTALITY INDEX

	2019	2020	2021
Cases	6 707	5 788	5 269
Average age of patients (years)	68.3	68.54	67.38
SAPS II expected mortality rate (%)	13.42	19.30	18.59
Actual mortality rate (%)	2.65	5.79	6.84
SAPS II mortality index	0.20	0.30	0.37
Average length of stay in CCU (days)	2.2	2.7	2.8
Percentage of ventilated patients (%)	31.59	33.48	41.56

SOUTHERN AFRICA

Figure 21: Inpatient mortality



The division's mortality index increased by 56.56% from 1.22 in 2020 to 1.91 in 2021. The increase in the mortality index was driven by COVID-19.

Adult critical care mortality - SAPS 3

TABLE 9: SAPS 3 MORTALITY INDEX

	2019	2020	2021
Cases	23 439	21 589	23 905
Average age of patients (years)	62.6	61.9	60.75
SAPS 3 expected mortalities (cases)	4 245	4 274	5 288
Actual mortalities (cases)	3 578	4 881	7 766
SAPS 3 expected mortality rate (%)	18.20	19.80	22.12
Actual mortality rate (%)	15.27	22.61	32.49
SAPS 3 mortality index	0.84	1.14	1.47
Average SAPS 3 score	51.04	52.08	53.91

The SAPS 3 mortality index increased by 27.83% in 2021 and was driven by COVID-19. High-index hospitals are analysed to identify improvement areas.

CLINICAL EFFECTIVENESS CONTINUED

Neonatal mortality and Vermont Oxford Network

In Southern Africa, we have contributed to VON since 2001 and currently have 34 hospitals registered on the network. VON is an international initiative aimed at improving the quality of infant care by collecting and benchmarking outcome data across the globe. There are currently over 1 300 participating centres worldwide. Although the division captures data on all infants admitted to participating neonatal CCUs, included in this report are the very low birth weight ('VLBW') newborns, including neonates who weigh 401-1 500g at birth or fall into a gestational age range of 22-29 weeks. Most cases in 2021 were at 28-30 weeks' gestation and weighed more than 1 000g.

Figure 22: Average birth weight, gestational age and admissions for VLBW infants in 2021

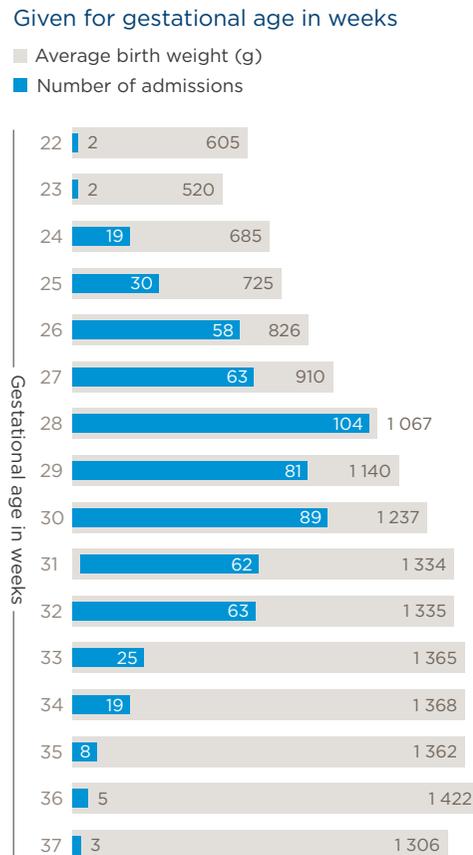
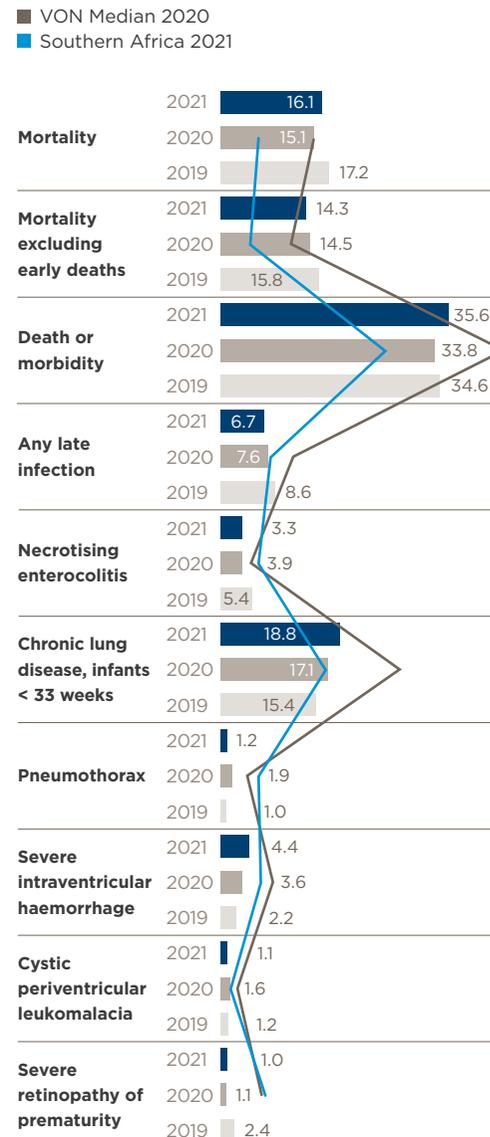


Figure 23: Neonatal key performance measures (%)



Increases were seen in chronic lung disease ('CLD'), pneumothorax, severe intraventricular haemorrhage and cystic periventricular leukomalacia.

In the coming year, the division's neonatal strategy will focus on training neonatal nurses to ensure preterm or ill babies are offered the best possible care. In addition, VON has created a comparison report to enable comparison against the VON database, the division only, and participating South African neonatal ICUs - a first for South Africa.

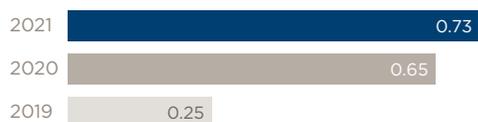
CLINICAL EFFECTIVENESS CONTINUED

THE MIDDLE EAST

The mortality rate in the UAE is still low when compared with our other geographies due to patient demographics and age profile. The overall acuity level of inpatient admissions and complexity of procedures are also much lower in the UAE.

An increase was noted in the in-hospital and critical care mortality rate, influenced by COVID-19.

Figure 24: Inpatient mortality rate
Percentage of admissions (%)



The 12.31% increase in the mortality rate from 0.65% in 2020 to 0.73% in 2021 is not statistically significant.

Adult critical care mortality - SAPS 3

TABLE 10: SAPS 3 MORTALITY INDEX

	2019	2020	2021
Cases	2 124	1 392	1 655
Average age of patients (years)	56.9	58.9	53.8
SAPS 3 expected mortalities (cases)	40	65	64
Number of mortality cases	40	76	82
SAPS 3 expected mortality rate (%)	1.90	4.68	3.9
Actual mortality rate (%)	1.9	5.5	5.0
SAPS 3 mortality index	0.99	1.17	1.29
Average SAPS 3 score	40.74	40.76	42.49

The SAPS 3 mortality index increased by 14.16% in 2021. All ICUs in the division participate in the SAPS 3 mortality prediction model to measure critical care outcomes.

Neonatal mortality and Vermont Oxford Network

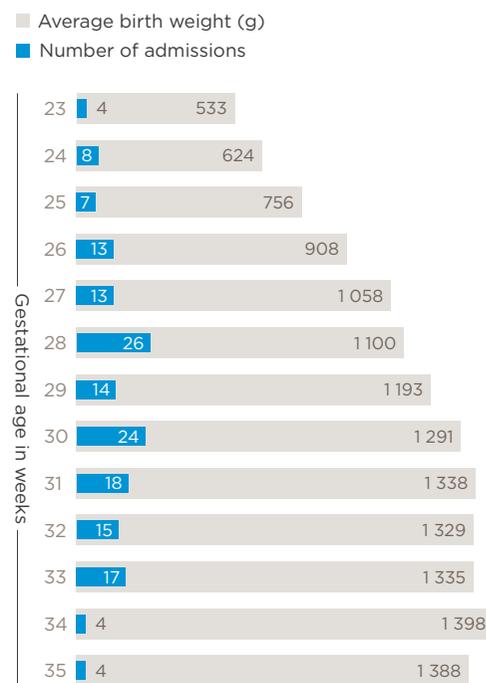
Participation in the VON database is well entrenched, with all seven hospitals registered on the network. This is an important initiative to measure performance and improve the quality of care delivered to patients.

Although all infants admitted to neonatal CCUs are included in the programme, reporting focuses on all infants eligible for the VLBW database. When interpreting data, it must be considered that as the information is expressed as a percentage, a small sample size of VLBW cases can skew results when compared to the larger number of babies in

the network database. Most cases during the period 2019–2021 were at 28 and 30 weeks' gestation and weighed more than 1 000g.

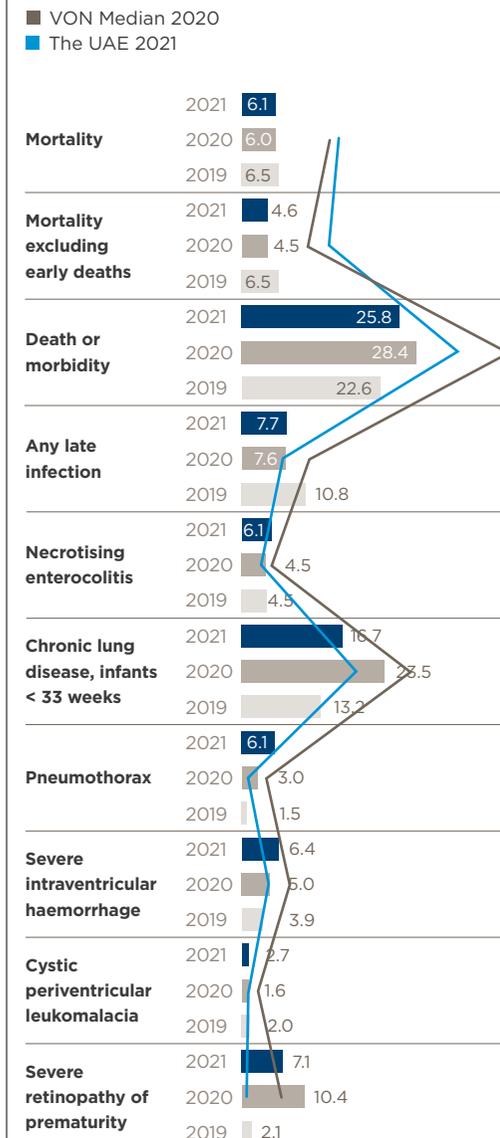
Figure 25: Average birth weight, gestational age and admissions for VLBW infants 2019–2021

Given for gestational age in weeks



The number of VLBW cases admitted to neonatal CCUs is low and the outcomes are in line with the majority of VON's KPIs, with the exception of death or morbidity, CLD and retinopathy of prematurity ('ROP'). Death or morbidity refers to all infants that had one or more of the listed complications and is driven in this instance by the CLD and ROP rates. ROP screening remains a focus for all infants at risk.

Figure 26: Neonatal key performance measures (%)



CLINICAL EFFECTIVENESS CONTINUED

READMISSION, RE-OPERATION AND EXTENDED STAY

TABLE 11: VARIANCES IN DIVISIONAL READMISSION RATE CALCULATIONS

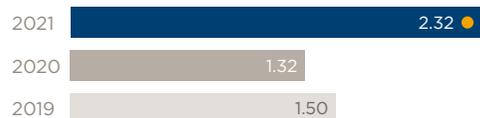
SWITZERLAND	SOUTHERN AFRICA	THE MIDDLE EAST
Reported initially as a 15-day unscheduled readmission rate as defined by the International Quality Indicator Project; however, changed to an all-cause readmission rate during 2021. The 15-day interval was chosen according to the 18-day readmission criteria of the Swiss diagnostic-related grouping system to provide input to the case management process. The change in definition led to an increase in the reported readmission rate.	Reported as a 30-day all-cause readmission rate which refers to patients readmitted within 30 days of the first admission, whether the second admission is related to the first admission or not, and whether it is planned or unplanned.	Reported as a 30-day unplanned readmission rate.

SWITZERLAND

Figure 27: Readmission and re-operation rates (%)

● Statistically significant

Readmission rate (%)



Re-operation rate (%)



The 75.8% increase in the readmission rate from 1.32 in 2020 to 2.32 in 2021 is statistically significant, and is related to a change in the definition, as mentioned in Table 11. The 5.1% increase in the re-operation rate from 0.99 in 2020 to 1.04 in 2021 is not statistically significant and is directly related to the decrease in elective procedures during the year.

Every readmission case is reviewed at hospital level by a member of the quality management team to ensure continuous improvement.

SOUTHERN AFRICA

Figure 28: Readmission rate (%)

● Statistically significant



The 6.42% decrease in the readmission rate from 7.16% in 2020 to 6.70% in 2021 is statistically significant.

The extended stay index is calculated using the average length of stay of patients in hospital divided by an average expected length of stay of the same patient group. The expected length of stay is calculated based on the diagnoses and procedures for which patients are admitted.

Figure 29: Extended stay index

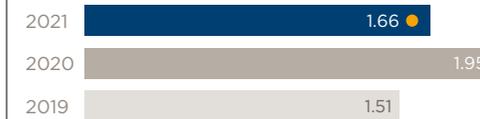


The 4.65% increase in the extended stay index from 1.29 in 2020 to 1.35 in 2021 is not statistically significant.

THE MIDDLE EAST

Figure 30: Readmission rate (%)

● Statistically significant



The 14.87% decrease in the readmission rate from 1.95% in 2020 to 1.66% in 2021 is statistically significant. Chemotherapy administration, wound care, false labours, maternity-related conditions, lithotripsies, dialysis and removal of an implant are excluded in the calculations. The most common reasons for readmission were non-infectious surgical complications, same/worsening symptoms, medical complications and postoperative infections.

Figure 31: Re-operation rate (%)



The 8.00% decrease in the re-operation rate from 0.25% in 2020 to 0.23% in 2021 is not statistically significant.

SHAPING OUR TOMORROW... PRECISION MEDICINE

BETTER CARE SETTINGS

Technology is reshaping client relationships and expectations. By exploring care solutions that transcend limitations, we are making our client care offering even more personalised and precise.

DECODING DISEASE

What if every person carried some of the answers to preventing and treating illness in their own body? That is the promise of genetic medicine that we are bringing to clients with our precision medicine offering in Switzerland.

Using genetic analysis, our team of internationally renowned experts – under the joint leadership of Professors Sabina Gallati Kraemer and Thomas Szucs – determine an individual's probability of developing a specific hereditary disease. 'If we detect a relevant genetic mutation, we consider what can be done with preventive measures,' says Thomas.

Equally important is evaluating how well a drug works for an individual, given that some may be effective for only 50% of patients. Among the clients who have sought advice from us is a 40-year-old woman whose migraine medication was ineffective and caused nausea. Genetic tests found alterations on six receptors responsible for drug metabolism – with this information, a suitable drug and dose can be selected. 'Thanks to the analysis, we avoid a tedious trial-and-error procedure, saving valuable time,' says Thomas.

Opened in November 2021, our Swiss precision medicine facility in Zollikon,

Switzerland, houses next-generation technology for DNA sequencing as well as consultation rooms. By having full control of the process, we guarantee privacy and data security and ensure quicker turnaround times.

While the state-of-the-art laboratory enables the clinical insights, our focus throughout is on flesh-and-blood clients. Every investigation begins with a consultation to understand the client's needs and determine which genes to analyse. The genetic findings are unpacked in an accessible report and the implications for treatment and prevention discussed with the client and their attending doctor. 'It is vital we integrate the genetic findings in the overall treatment context,' says Sabina.

With our genetic medicine offering, diagnosis becomes more precise, therapy more targeted and prognosis more meaningful. Bringing together whole genome sequencing, informatics and wearable technology will unlock even more opportunities for tailored medicine going forward. We are entering an era of truly personalised care.

From left to right: Prof. Thomas Szucs, Co-Head Genomic Medicine Hirslanden; Dr Michael Thelen, Technical Laboratory Manager; Prof. Sabina Galatti Kraemer, Co-Head Genomic Medicine Hirslanden; and Janic Teutsch, Scientific Assistant.



▶ [Learn more about the service in our video](#)



SHAPING OUR TOMORROW... KIDNEY CARE



Dialysis centre in Bloemfontein, South Africa



DIALYSIS WITH A DIFFERENCE

An estimated 10% of people worldwide have chronic kidney disease. For these patients, dialysis, which mechanically filters waste products and excess fluid from the blood, is a life-saving measure. But dialysis is time-intensive. Patients need treatment two to three times a week, with each session lasting up to four hours.

With a series of dialysis clinics across South Africa, our renal services offering is now providing dedicated client care tailored to individuals' needs. 'Our units bring together the latest medical technology, high clinical standards and a holistic approach,' says Brian Prinsloo, CEO of Mediclinic Renal Services. The offering includes evening and Saturday sessions for working clients as well as individual tablets with WiFi access and entertainment streaming. Life is not put on

hold during treatment; instead, we enable clients to lead a more independent, healthier life by integrating care.

Realised through a merger with BGM Renal Care, this new offering combines all aspects of care for kidney disease, from awareness and patient support to chronic dialysis. What sets our service apart is the insight from continuous data gathering. Daily body composition analysis not only determines patients' hydration levels for accurate dialysis but also their nutritional status, so the dietician can help manage their condition. Point-of-care pathology, piloted in July 2021, offers blood tests as needed, which enables an immediate response. 'We want to have high-quality information so we can manage our patients better,' says Brian. This value-based model offers patients a comprehensive package.

In keeping with Mediclinic's data-driven approach, every treatment and interaction is recorded and measured, helping to establish clinical benchmarks between units. Each clinic has a close working relationship with a nephrologist and monthly pathology reviews for guidance on improving results. There are also clinicians responsible for managing anaemia and the interplay between medication and mineral and bone health – two pernicious issues for kidney patients. Clients join an ongoing treatment programme where a 'name nurse' – a dedicated healthcare professional – manages their overall care.

In 2021, we opened four dialysis clinics, either co-located with Mediclinic hospitals or linked to a specific hospital. 'It makes sense: the client's doctor is there, the laboratory, the pharmacy – now their dialysis service too. Their medical



What sets our service apart is the insight from continuous data gathering.

history follows them and, in the chronic unit, they get treated by the partner they originally entrusted with their care. The continuum of care model ensures clients enjoy the benefit of that relationship throughout their healthcare journey,' says Brian.



▶ [Learn more about the Soweto dialysis centre in our video](#)

SHAPING OUR TOMORROW... REMOTE CARE

CHRONIC CARE AT HOME

For diabetic patients, continuous monitoring of blood glucose levels is vital. If uncontrolled, high blood glucose can cause a host of serious health issues, from eye problems and nerve complications to heart disease and kidney failure.

When the COVID-19 pandemic interrupted in-person healthcare, it put diabetic patients at increased risk. In response, the Abu Dhabi Department of Health approached us about remote health services.

'Our chronic disease management programme combines the best of virtual and physical healthcare to increase compliance with treatment plans and provide clients with integrated care from the comfort of their home or workplace,' says Ahmad Awada, Senior Manager Virtual Health at our Middle East division.

The programme encompasses teleconsultations with physicians and nurses, nurse home visits, medication delivery and referral to hospital when needed.

It has been a lifeline for diabetic patients. Of those enrolled, 331 patients repeated an HbA1c blood glucose test six months into the course of the programme. In 53% of participants, the second test returned a lower result, indicating the programme's impact on diabetic control.

That success has seen the programme developed further in 2021. 'We used the lessons learned to formulate risk stratification, remote patient monitoring and wellness

coaching. We also created clinical pathways and protocols in our EHR for proper patient management,' explains Dr Lisa Pinto, Director Clinical Projects.

To bring the enhanced offering to a wider audience, we have partnered with Huma, a leader in hospital-at-home technology. With an initial focus on diabetes and hypertension, Mediclinic at Home uses a mobile app to track vitals, offer teleconsultations and provide wellness coaching programmes.

Officially launching in 2022, this new service not only offers clients the convenience of care in the comfort of their home, but also empowers every client to take control of their health journey. By enabling early intervention, our chronic disease management programme aims to prevent complications and effect better health outcomes. 'What we started as a COVID-19 response has become a core service line and Mediclinic is at home now in the Middle East,' says Ahmad.



▶ [Learn more about Mediclinic at Home in our video](#)



Our chronic disease management programme combines the best of virtual and physical healthcare to increase compliance with treatment plans and provide clients with integrated care from the comfort of their home or workplace.



PARTNERSHIPS

We partner with leading organisations to complement existing services and expand our offering across the continuum of care. We also invest in the workforce of tomorrow in light of the continued global shortage of healthcare employees and to secure the future of healthcare.

➤ See the **2022 Sustainable Development Report** to read more on training opportunities for healthcare students

PARTNERSHIPS			
AL AIN UNIVERSITY OF SCIENCE AND TECHNOLOGY		A Memorandum of Understanding ('MoU') with Al Ain University of Science and Technology facilitates academic collaboration and creates learning and development opportunities for Emiratis. This partnership paves the way for students enrolled in Pharmacy and Dietetics undergraduate programmes to experience clinical accompaniment in various Mediclinic facilities across the UAE.	aau.ac.ae/en/
BERN UNIVERSITY OF APPLIED SCIENCES		This partnership with the Bern University of Applied Sciences provides internships for the master modules Clinical Assessment and Advanced Nursing Practice in Primary Care in the Nurse Practitioner Programme. During this pilot implementation, certain physicians are acting as supervisors. The project commenced in December 2019.	www.bfh.ch
FATIMA COLLEGE OF HEALTH SCIENCES		An MoU with Fatima College of Health Sciences facilitates academic collaboration and creates learning and development opportunities for Emiratis. The MoU paves the way for students enrolled in Nursing, Health Emergency (paramedics), Pharmacy, Radiography and Physiotherapy to experience on-the-job training in various Mediclinic facilities across the UAE.	www.fchs.ac.ae

PARTNERSHIPS CONTINUED

KANTONSSPITAL BASELSTADT		This joint venture with the Kantonsspital Baselstadt focuses on the treatment of musculoskeletal disorders.	www.ksbl.ch
MEDBASE		The joint venture with Medbase allows us to pool our expertise in outpatient and inpatient medicine and jointly invest in integrated healthcare close to home.	
MOHAMMED BIN RASHID UNIVERSITY OF MEDICINE AND HEALTH SCIENCES		In line with the partnership with MBRU, a number of our facilities in Dubai are approved training sites for medical students. Signed on 13 December 2021, the new and updated Master Affiliation Agreement includes an enlarged governance framework with a board comprising members from both entities. It also provides for a joint academic council with a subcommittee structure made up of seven specialised committees instead of one. These new committees will enhance joint efforts to advance education in Dentistry, Nursing and Midwifery, and other health disciplines.	www.mbruniversity.ac.ae
STELLENBOSCH UNIVERSITY		In partnership with Stellenbosch University, we offer medical students the opportunity to complete their training in Internal Medicine under the supervision of accredited full-time specialists working at Mediclinic hospitals. Participation was postponed in 2021 due to the pandemic.	www.sun.ac.za
UNIVERSITY OF JOHANNESBURG		In collaboration with the University of Johannesburg, we accommodate students for clinical training and also share knowledge on academic matters.	www.uj.ac.za

PARTNERSHIPS CONTINUED

PARTNERSHIPS CONTINUED			
UNIVERSITY OF LUCERNE & UNIVERSITY OF ZURICH		In partnership with the Universities of Lucerne and Zurich, Hirslanden Klinik St. Anna trains medical students from the Joint Medical Master Programme. Each academic year, 100 students on average participate in these classes. In addition, a partnership between the University of Zurich and Klinik Hirslanden offers medical students the opportunity to complete their training in several perioperative medicine modules. In 2021, the partnership assisted around 100 students.	www.unilu.ch www.uzh.ch
UNIVERSITY OF THE WESTERN CAPE		We have an agreement to provide financial support to health science students at the University of the Western Cape. The university will apply for approval to use Mediclinic facilities for student placements.	uwc.ac.za
WITS UNIVERSITY DONALD GORDON MEDICAL CENTRE		We have a partnership with Wits University and also manage Wits University Donald Gordon Medical Centre, the only private specialist training facility in South Africa and the largest and most successful solid organ transplant centre in the country.	www.dgmc.co.za

Key:  = Switzerland  = Southern Africa  = The Middle East

INDEPENDENT ASSURANCE

ACCREDITATIONS, CERTIFICATIONS, INITIATIVES

To provide the necessary independent assurance over the quality and reliability of our healthcare services, processes and facilities, we follow a combined assurance model with assurance between management, internal audit and external accreditation and certification.

ACCREDITATION			
COHSASA & INTERNATIONAL SOCIETY FOR QUALITY ASSURANCE IN HEALTHCARE ('ISQua')		COHSASA accredits all of our participating hospitals in Southern Africa. Accreditation assessments are based on detailed hospital standards and are validated by ISQua.	www.cohsasa.co.za
COLLEGE OF AMERICAN PATHOLOGISTS		The laboratory at City Hospital in Dubai is accredited by the CAP, which evaluates the entire spectrum of laboratory test disciplines against the most scientifically rigorous customised requirements.	www.cap.org
EUROPEAN ASSOCIATION FOR THE STUDY OF OBESITY'S COLLABORATING CENTRES FOR OBESITY MANAGEMENT		EASO's Collaborating Centres for Obesity Management initiative is a network of accredited multidisciplinary treatment centres. Accreditation is in accordance with accepted European and academic guidelines. Parkview, City and Welcare hospitals are accredited specialised obesity management units.	easo.org/coms-2/
JOINT ACCREDITATION COMMITTEE ISCT-EUROPE AND EBMT		Accreditation body JACIE was founded by the European Organisation for Blood and Marrow Transplantation (EBMT) and the International Society for Cell & Gene Therapy (ISCT), the two leading international scientific organisations in stem cell transplantation. Klinik Hirslanden is the only private hospital in Switzerland with JACIE accreditation.	ebmt.org/accreditation/about-jacie

INDEPENDENT ASSURANCE CONTINUED

ACCREDITATION CONTINUED			
JOINT COMMISSION INTERNATIONAL		JCI is a leader in healthcare accreditation and the author and evaluator of rigorous international standards in quality and patient safety. Most of our facilities in the UAE are accredited. In addition, the diabetes clinical programme at Welcare Hospital, the acute coronary syndrome programme at City and Airport Road hospitals, and the breast cancer programme at City Hospital are accredited.	www.jointcommissioninternational.org
SURGICAL REVIEW CORPORATION		Surgical Review Corporation is a non-profit, patient safety organisation that accredits the top hospitals and ambulatory surgical centres in the world. The fundamentals of an accreditation are intrinsic to the delivery of safe and effective patient care. The specialised bariatric unit at Airport Road Hospital was accredited as a Centre of Excellence in 2020.	www.surgicalreview.org/

CERTIFICATION			
GERMAN CANCER SOCIETY		Certification by the German Cancer Society reassures patients of high-quality treatment. The Cancer Centre at Klinik Hirslanden has held this certification since 2017. Its certification extends to breast and prostate cancer (including uro-oncology), gynaecological tumours, colon cancer, and haematological and lymphological oncology. The hospital is the first private institution in Switzerland to obtain this certification, which is now also held by the Klinik St. Anna Cancer Centre.	

CERTIFICATION CONTINUED			
ISO 9001:2015		This independent international certification shows the organisation meets world-class specifications for quality, safety and efficiency. All our participating Swiss hospitals were ISO 9001:2015-certified in 2021.	
ISO 13485:2016		Klinik Hirslanden, Clinique Cecil, Clinique Bois-Cerf and Klinik St. Anna meet the high requirements for the reprocessing of medical devices and are ISO 13485-certified.	
ISO 15189:2012		All laboratories operating within our hospital and clinic facilities are ISO 15189:2012-certified.	
SWISS CANCER LEAGUE		The Swiss Cancer League is a non-profit organisation with the aim of ensuring more people can be treated successfully. A cancer centre must meet about 100 criteria in order to pass external certification. We have six certified breast cancer centres across eight locations in Switzerland.	www.krebsliga.ch
SWISS CANCER LEAGUE AND SWISS SOCIETY FOR SENOLOGY		The Breast Centre Bern Biel was awarded the quality label by the Swiss Cancer League and the Swiss Society for Senology in November 2020. The centre of competence at Salem-Spital in Bern and Klinik Linde in Biel combines the medical expertise of various specialists at the two locations and offers patients with breast diseases all the necessary diagnostics and subsequent treatments close to home.	
SWISS FEDERATION OF CLINICAL NEURO-SOCIETIES		SFCNS promotes collaboration between clinical neuro-societies in Switzerland to enhance interdisciplinary knowledge and overall impact of all its disciplines. The Stroke Centre at Klinik Hirslanden is certified by SFCNS.	www.sfcns.ch/portrait.html

INDEPENDENT ASSURANCE CONTINUED

INITIATIVES			
IQM		IQM promotes further improvements in medicine through innovative and efficient procedures, thereby setting new standards in quality. In Switzerland, quality measurements using routine data are based on the Swiss Inpatient Quality Indicators (CH-IQI). Our Swiss division has been applying these quality management criteria since 2012. Due to COVID-19, extraordinary changes in the populations of the indicators were identified and no target achievements were disclosed for 2021.	www.initiative-qualitaetsmedizin.de
NET PROMOTER SCORE®	   	Net Promoter Score® measures customer experience and predicts business growth.	netpromotersystem.com
PRESS GANEY®	   	Press Ganey® strengthens patient-provider relationships through real-time feedback and performance benchmarks, leveraging state-of-the-art survey methodology. All three divisions use the Press Ganey® platform to measure and report on patient experience.	www.pressganey.com
VERMONT OXFORD NETWORK	  	VON is a non-profit collaboration to improve neonatal care globally with data-driven quality improvement and research. Currently, 34 Southern African facilities and seven Middle East facilities participate.	public.vtoxford.org



CLINICAL ETHICS SUMMARY



ADVANCED CARE PLANNING, END-OF-LIFE AND TERMINAL CARE

Clinical governance structures are in place to report, audit and address any concerns in line with local regulations and legislation.

ASSISTED REPRODUCTIVE TECHNOLOGY AND IVF

Centres providing this service are governed by the local regulatory and legal framework; e.g. in the UAE, Bourn Hall Fertility Centre complies with Federal Law No. (11) of 2008 on licensing fertilisation centres in the country. In addition, compliance is monitored by the licensing authorities during inspections.

COMPETENCE AND SCOPE OF PRACTICE

Established clinical governance structures monitor and address concerns. An established recruitment, training and continuous assessment process covers employed healthcare workers, and a credentialing and privileging process is followed for independent healthcare workers.

DOCTOR COVER, AVAILABILITY AND RESPONSE

On-call rosters are compiled and available at emergency centres. An established management process and reporting system covers non-compliant independent medical practitioners; an established human resources process covers employed doctors.

DOCTOR QUALIFICATIONS AND PERFORMANCE, AND ILLEGAL PRACTICE

Credentialing and privileging of doctors follow a combined approach – a formal process verifies registration, qualifications and credentials while an informal process solicits performance-related information from peers.

Prevention policies are established, and doctors are monitored through annual validation of registration; investigations of deteriorating hospital clinical quality indicators; mortality audits; serious incident investigations; complaints from patients, fellow doctors and employees; medico-legal investigations; ethics line reports; CPC meetings; direct reporting by doctors; and informal feedback from employees regarding recurring concerns.

DRUG TRIALS AND MEDICAL RESEARCH

Drug trials and medical research are aligned with the Declaration of Helsinki and local legislation.

All requests for clinical drug trials and medical research are approved by an independent, accredited ethics committee before being accepted for evaluation and approval by the respective divisional committees. All approved trials are recorded on a registry and no unofficial drug testing is allowed. Medical research and experiments are managed by a clinical research approval committee and related policies.

We deal with medical ethical issues on a daily basis. Most of these are covered by formal policies, but some are still elusive and

CLINICAL ETHICS SUMMARY CONTINUED

quite complex to deal with by way of policy. In all instances, response and reaction are governed by local legislation and regulations.

EMPLOYEE AND PATIENT PROTECTION

The safety of our employees and patients is of paramount importance and is managed through established IPC measures. Occupational health specialists provide a service at each hospital. On acceptance of employment, all healthcare employees are screened for pulmonary tuberculosis, and screened and vaccinated against Hepatitis B if they do not have sufficient antibodies.

Proper management of sharps injuries and safety procedures are applied at all three divisions. Depending on the geography, HIV/Aids diagnosis and support are offered to affected employees in accordance with local regulations.

Our recruitment policies are in accordance with the local legislation of each division. In Switzerland and Southern Africa, the HIV/Aids status of new recruits is not considered during appointment; in the UAE, foreigners planning to work in the country are tested for tuberculosis and HIV/Aids as part of the visa application process (and thereafter every two years).

In the event of an increase in the incidence or an outbreak of Methicillin-resistant *Staphylococcus aureus*, healthcare employees are screened and decolonised, if necessary.

Flu vaccines are offered annually to employees. Other vaccines, e.g. diphtheria and measles, are offered when there is an indication, an increase in cases in a specific area or as post-exposure. In Switzerland, radiation exposure and compliance with prevailing acceptable exposure limits are monitored centrally.

ETHICAL BEHAVIOUR AND BILLING, AND FALSIFICATION OF DIAGNOSIS AND DOCUMENTATION

Operational and clinical management at each hospital are responsible for ensuring the ethical conduct of doctors and employees. Human resources policies and the code of conduct of professional bodies address issues of misconduct and criminal behaviour. Regular documentation and clinical coding audits ensure compliance with legal, ethical and operational requirements. Across all divisions, fraudulent behaviour of doctors and employees can be reported via independent ethics lines.

EUTHANASIA

Euthanasia is neither practised nor condoned in any of our facilities. All hospitals have control measures in place to ensure compliance with local legislation.

FORCED FEMALE CIRCUMCISION

Control measures ensure compliance with respective legislation. Informed consent for any medical or surgical intervention or procedure is upheld by the profession and is entrenched in local legislation.

GENETICS

Genetic testing and counselling are offered in each division according to local regulations and legislation, and in adherence to the relevant ethical framework. The results of genetic testing are governed by the same data privacy principles and rules that apply to other personal information.

INAPPROPRIATE CARE

Appropriate care is a Group-wide focus area. It is managed by indication boards in Switzerland, and cost per event in Southern



Africa and the Middle East. Cost reporting and management processes and structures are in place. Complex cases are discussed with treating doctors.

ORGAN TRADE

The organ donation and receipt process is carefully documented and is in line with applicable legislation.

PHARMACY

Pharmacy policies, procedures and audits ensure compliance with legislation, ethical and operational requirements.

REMUNERATION AND KICKBACKS

Perverse incentives are prohibited. Corporate Office and hospital management ensure strict compliance with established rules.

REPORTING AND DISCLOSURE OF SAFETY EVENTS

Each hospital has a formal safety event reporting system, with a Group-wide system introduced in 2021. A 'just culture' (Frankl framework) is promoted. The reporting system is non-punitive and the recorded adverse events are discussed at the hospitals' clinical hospital committees. To prevent similar incidents, learning from events is a key focus area.

TECHNOLOGY (INCLUDING ROBOTICS)

Equipment must be CE-certified and approved by the local regulator and/or certified by the FDA. CE marking is a certification mark that indicates conformity with health, safety and environmental protection standards for products sold within the European Economic Area ('EEA'); it is also found on products sold outside the EEA that are manufactured in, or designed to be sold in, the EEA.

Equipment may only be used for the approved indications and as dictated by local or international guidelines. Clinical safety must be proven before any new technology is implemented at a division or in a facility.

TERMINATION OF PREGNANCY

Strict control measures exist to ensure legal compliance. In addition, the Group allows employees freedom of choice as to whether they wish to refrain from participating in any terminations of pregnancy for moral, religious, ethical or related reasons.

GLOSSARY OF TERMS

TERM	MEANING
AI	artificial intelligence
AOS	adverse outcome score
CAP	College of American Pathologists
CAUTI	catheter-associated urinary tract infection
CCC	Comprehensive Cancer Centre
CCRG	clinical and cost-related grouping
CCU	critical care unit
CLABSI	central line-associated bloodstream infection
CLD	chronic lung disease
COHSASA	Council for Health Service Accreditation of Southern Africa
Company	Mediclinic International plc
CPC	Clinical Performance Committee
CRM	customer relationship management
CTU	clinical trials unit
DDD	defined daily dose of antimicrobial use
DHA	Dubai Health Authority
EASO	European Association for the Study of Obesity
EC	emergency centre
EEA	European Economic Area
EHR	electronic health record
ESG	environmental, social and governance
FDA	the Food and Drug Administration of the United States
Group	Mediclinic International plc and its subsidiaries, including its divisions in Switzerland, Southern Africa and the Middle East
HAI	healthcare-associated infection
HIE	health information exchange
Hirslanden	the Group's operations in Switzerland, trading under the Hirslanden brand, with Hirslanden AG as the intermediary holding company of the Group's operations in Switzerland

TERM	MEANING
HPCNA	Health Professions Council of Namibia
HPCSA	Health Professions Council of South Africa
HTA	health technology assessment
ICU	intensive care unit
IPC	infection prevention and control
IQM	Initiative on Quality Medicine
ISQua	International Society for Quality Assurance in Healthcare
IVF	<i>in vitro</i> fertilisation
JACIE	Joint Accreditation Committee ISCT-Europe & EBMT, accreditation body for stem cell transplantation
JCI	Joint Commission International, an international quality measurement accreditation organisation, aimed at improving quality of care
JSE	the stock exchange of South Africa based in Johannesburg
KPI	key performance indicator
LSE	London Stock Exchange
MBRU	Mohammed Bin Rashid University of Medicine and Health Sciences
Mediclinic	Mediclinic International plc
Mediclinic Middle East	the Group's operations in the Middle East, trading under the Mediclinic brand, with Mediclinic Middle East Holdings (registered in Jersey) as the intermediate holding company of the Group's operations in Dubai and Abu Dhabi
Mediclinic Southern Africa	the Group's operations in South Africa and Namibia, trading under the Mediclinic brand, with Mediclinic Southern Africa (Pty) Ltd as the intermediary holding company of the Group's operations in South Africa and Namibia
MoU	memorandum of understanding
MR	mixed reality
NPS®	Net Promoter Score®
NSX	the Namibian Stock Exchange based in Windhoek, Namibia

GLOSSARY OF TERMS CONTINUED

TERM	MEANING
Period under review/ Reporting period	1 January 2021-31 December 2021
PPE	personal protective equipment
ROP	retinopathy of prematurity
SAPS	Simplified Acute Physiological Score
SDGs	Sustainable Development Goals
SFCNS	Swiss Federation of Clinical Neuro-Societies
SI	severity index
Spire	Spire Healthcare Group plc
SREs	serious reportable events
SSIs	surgical site infections
UAE	the United Arab Emirates
UAT	user acceptance testing
UN	the United Nations
VAP	ventilator-associated pneumonia
VLBW	very low birth weight, as describing newborns who weigh 401-1 500g at birth
VON	Vermont Oxford Network
WAOS	weighted adverse outcome score
WHO	World Health Organization



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SEDOL number: B8HX8Z8
EPIC number: MDC
LEI: 2138002S5BSBIZTD5160
Primary listing: LSE (share code: MDC)
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Secondary listing: NSX (share code: MEP)

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