Access to Healthcare

ESG Investor Event

16 May 2022
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2. legislative and regulatory developments and economic conditions;
3. delay or inability in obtaining regulatory approvals or bringing products to market;
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6. increased government pricing pressures;
7. interruptions in production;
8. loss of or inability to obtain adequate protection for intellectual property rights;
9. litigation;
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11. adverse publicity and news coverage.

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Welcome

Bruno Eschli | Head of Investor Relations
Agenda

Welcome
Bruno Eschli, Head of Investor Relations

Roche Sustainability Strategy
Pascale Schmidt, Chief Compliance and Sustainability Officer

How Roche Diagnostics enables Access to Healthcare
Thomas Schinecker, CEO Roche Diagnostics

Driving Access to Diagnostics across the Globe
Stefan Seliger, Head Global Access & Policy, Diagnostics Division

Driving Access to Medicine across the Globe
Michael Oberreiter, Head Global Access, Pharmaceuticals Division

Q&A
Our Ambitions

Keep innovating and increasing patient access to our innovations

Divisional ambitions to be achieved:

**Pharmaceuticals:**
- Double medical advances at less costs to society by 2030
- Double patient numbers in LMICs for our innovative medicines by 2026

**Diagnostics:**
- Double patient access to novel, high medical value diagnostics solutions by 2030

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1 First approval of a new molecule in a new indication; LMIC=Low- and middle-income countries
Roche Sustainability Strategy

Pascale Schmidt |
Chief Compliance and Sustainability Officer
Our Approach to Sustainability
*Derived from our Purpose & Strategy*

**Environment**
How we protect our natural world

**Economy**
How we create jobs, ensure livelihoods and invest in medical advances

**Society**
How we contribute to a better tomorrow for all

**Our Climate Goal**
Reducing Scope 1&2 Greenhouse Gas Emissions to real zero by 2050

**Our Strategy**
Delivering value to all stakeholder

**Our Purpose**
Doing now what patients need next

**Our Material Topics**

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**Innovation**
- Highest R&D Spending in Healthcare Industry
  - CHF 13.7 billion R&D expenditure in 2021

**Access to Healthcare**
- Our Greatest Contribution to Society
  - Accelerating the access to and delivery of sustainable healthcare through innovation

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1 Without buying CO2 certificates
Sustainability Governance

Integrating sustainability into our organization

1. Corporate Governance and Sustainability Committee of Board of Directors (BoD)
   - Responsible and accountable for governing sustainability at the BoD level
   - Supervises and provides advice on sustainability strategy

2. Sustainability Steering Committee
   - Sets sustainability strategy, monitors its implementation
   - Members are appointed by the Corporate Executive Committee (CEC) and are on CEC-1 or -2 level

3. Sustainability Operations Committee
   - Implements and advances sustainability agenda
   - Reports on objectives and impact measurements
   - Members are from relevant global and affiliate functions

4. Global Sustainability Network
   - Supports the Sustainability Operations Committee
   - Delivers on the objectives in cross-functional and cross-divisional working groups

BoD=Board of Directors; CEC=Corporate Executive Committee

Managing our internal community

- Affiliates
- Communities of interest
- Ad hoc discussions

agile organization
Our Commitment to Transparency

Aligned communication on our non-financial performance

One central repository for non-financial data

External Reporting (Annual Report, Roche.com)
Standards & Frameworks
Transition from 2017 GRI Standards to 2021 Standards for FY 2022
First annual public disclosure for FY 2021
Deep dive into Scope 3 data to identify emissions and reduction opportunities
Ratings
One of the top 3 most sustainable healthcare companies for 13 years running
Ranked #9, reflecting efforts to expand healthcare in LMICs

FY=Full Year; SHE=Safety, Security, Health and Environmental Protection; GRI=Global Reporting Initiative; LMICs=Low- and middle-income countries
Our External Engagement & Shaping

Global initiatives that we are actively contributing to

- Accelerating collectively the system transformations needed for a net-zero, nature positive, and more equitable future
- Helping senior biotech and pharma executives drive their sustainability agendas forward through a sector-specific collaboration platform
- Redefining value to transform decision-making through global collaboration
- Accelerating the delivery of net zero, sustainable healthcare to improve individual, societal and planetary health
- Building responsible supply chains in the pharmaceutical industry

WBCSD=World Business Council for Sustainable Development; PSCI=Pharmaceutical Supply Chain Initiative
## Our Performance in 2021

### Supporting UN SDGs

<table>
<thead>
<tr>
<th>SDG</th>
<th>Description</th>
<th>Impact</th>
<th>2021 Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Clean water and sanitation</td>
<td>Environment</td>
<td>-30% decrease in our environmental impact per employee since 2019</td>
</tr>
<tr>
<td>7</td>
<td>Affordable and clean energy</td>
<td>Environment</td>
<td>72% of our electricity coming from sustainable sources</td>
</tr>
<tr>
<td>13</td>
<td>Climate action</td>
<td>Environment</td>
<td>59% decrease in greenhouse gas emissions since 2004</td>
</tr>
<tr>
<td>8</td>
<td>Decent work and economic growth</td>
<td>Economy</td>
<td>21.83% of sales invested in R&amp;D</td>
</tr>
<tr>
<td>9</td>
<td>Industry, innovation and infrastructure</td>
<td>Economy</td>
<td>100,920 employees</td>
</tr>
</tbody>
</table>

### Society

<table>
<thead>
<tr>
<th>SDG</th>
<th>Description</th>
<th>Impact</th>
<th>2021 Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Good health and well-being</td>
<td>Society</td>
<td>16.4 million patients treated with Roche medicines</td>
</tr>
<tr>
<td>4</td>
<td>Quality education</td>
<td>Society</td>
<td>27 billion tests conducted with Roche Diagnostics products</td>
</tr>
<tr>
<td>5</td>
<td>Gender equality</td>
<td>Society</td>
<td>80 new molecular entities in clinical development</td>
</tr>
<tr>
<td>10</td>
<td>Reduced inequalities</td>
<td>Society</td>
<td>44% of women in management</td>
</tr>
<tr>
<td>17</td>
<td>Partnerships for the goals</td>
<td>Society</td>
<td>80/100 employee engagement score</td>
</tr>
</tbody>
</table>

### Economy

<table>
<thead>
<tr>
<th>SDG</th>
<th>Description</th>
<th>Impact</th>
<th>2021 Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Zero hunger</td>
<td>Economy</td>
<td>21.83% of sales invested in R&amp;D</td>
</tr>
<tr>
<td>9</td>
<td>Industry, innovation and infrastructure</td>
<td>Economy</td>
<td>100,920 employees</td>
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</table>

UN SDGs=United Nations Sustainable Development Goals
How Roche Diagnostics enables Access to Healthcare

Thomas Schinecker | CEO Roche Diagnostics
Trends shaping healthcare systems and access to healthcare

The needs from healthcare systems, patients and for access are changing

Increasing healthcare needs from aging populations

Healthcare systems committed to invest in Universal Health Coverage

Resources continue to be stretched in healthcare

Patients are empowered, taking action along the patient journey

Increasing telemedicine and home testing

Patients want more personalized care

Role of public-private partnerships

Health Technology Assessments for IVDs

Digitalization and data regulatory environment

COVID-19 accelerated changes in how we deliver healthcare to patients

Macro trends  Patient trends  Access trends

IVDs=In-vitro diagnostics
Diagnostics Strategy and our Ten-Year Ambition

Access to diagnostics solutions is at the core of our strategy

Diagnostics Ten-Year Ambition (by 2030)

- Double patient access to novel, high medical value diagnostics solutions

Value to Patients & Healthcare

Outcomes

Costs

Improve care along patient journeys

Enable confident healthcare decisions

Deliver medical value on integrated testing solutions

Accelerate innovation

Target by 2030

75 medical value solutions

Baseline

25 solutions in 2019

Reduce time to reimbursement

Time to reimbursement in key markets -50%\(^1\)

6-8 years

\(^1\) In US, Germany and China
Optimizing care along the entire patient journey

Roche is in a unique position in the industry to address healthcare challenges

Simplified patient journey for illustrative purpose only; ¹ Other assets, partnerships and care interventions that Roche can orchestrate; IVD=In-vitro diagnostics; GP=General practitioner; Algos=Algorithms; POC=Point of care
Disease burden and economic impact
Our strategy targets major disease areas to reduce impact on patients & economy

### Causes of death globally (millions per year)\(^1,2\)

<table>
<thead>
<tr>
<th>Disease Area</th>
<th>Millions per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular diseases</td>
<td>18</td>
</tr>
<tr>
<td>Infectious diseases</td>
<td>13</td>
</tr>
<tr>
<td>Cancer</td>
<td>10</td>
</tr>
<tr>
<td>Injuries</td>
<td>4</td>
</tr>
<tr>
<td>Neurological disorders</td>
<td>3</td>
</tr>
</tbody>
</table>


\(^5\) COVID-19 2021:

- Infectious diseases: +100% estimate from COVID-19

\(>2\text{tn CHF}\)
Focus on prevention and early diagnosis to bring value to patients
70% of clinical decisions informed by diagnostics but only 2% HC spend goes into it

<table>
<thead>
<tr>
<th>Disease burden</th>
<th>Roche’s impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>47%</strong></td>
<td><strong>&gt;27 billion</strong></td>
</tr>
<tr>
<td><strong>311,000</strong></td>
<td><strong>&gt;1.75 CHF billion</strong></td>
</tr>
<tr>
<td><strong>2 billion</strong></td>
<td><strong>&gt;90</strong></td>
</tr>
<tr>
<td><strong>&gt;37 million</strong></td>
<td><strong>240’000</strong></td>
</tr>
<tr>
<td><strong>290 million</strong></td>
<td><strong>&gt;8 million</strong></td>
</tr>
<tr>
<td><strong>70 million</strong></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00673-5/fulltext; \(^2\)www.unaids.org/en/cervical_cancer; \(^3\)www.stoptb.org/about-tuberculosis; \(^4\)www.who.int/news-room/fact-sheets/detail/hiv-aids; \(^5\)www.who.int/news-room/fact-sheets/detail/hepatitis-b; \(^6\)www.who.int/news-room/fact-sheets/detail/hepatitis-c; HC=Healthcare; HIV=Human immunodeficiency virus; HPV=Human papillomavirus; LMICs=Low- and middle-income countries
Our contribution against COVID-19

Roche has enabled access to >1.5 billion tests to fight the COVID-19 pandemic

**20+ solutions**
Broad portfolio of COVID-19 solutions

**>1.5 billion COVID-19 tests**
Conducted with our products since 2020

**Responsible pricing to enable access**
Costs should not be a barrier to access testing

**>1'900 cobas® 6800/8800 instruments placed**
Increase over two-fold since the pandemic, enabling increased access to testing beyond COVID-19

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**Selected launches and acquisitions**

- **1st SARS-CoV-2 detection test (RUO)**
- **Anti-SARS-CoV-2 test (qual. Ab lab test)**
- **SARS-CoV-2 rapid Ag (POC)**
- **Acquisition of GenMark Diagnostics**
- **Launch of cobas® 5800**
- **1st EUA for SARS-CoV-2 rapid Ag home test**
- **cobas® SARS-CoV-2 on cobas® 6800/8800**
- **Anti-SARS-CoV-2 S test (quant. Ab lab test)**
- **Acquisition of TIB Molbiol**
- **Test to detect Omicron variant**
- **SARS-CoV-2 DUO**

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1 cobas® 6800/8800 instruments installed base per 31 March 2022; RUO=Research use only; POC=Point of care; EUA=Emergency Use Authorization; Ab=Antibody; Ag=Antigen
Impact of COVID–19 testing in Germany

Diagnostics tests reduced the negative impact on economy and healthcare system

Impact of testing on society

<table>
<thead>
<tr>
<th>Infections avoided</th>
<th>GDP decline avoided</th>
<th>Deaths avoided</th>
<th>Hospital admissions avoided</th>
<th>Admissions to intensive care units avoided</th>
<th>Occupancy of intensive care beds avoided</th>
<th>Treatment costs avoided</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8 million</td>
<td>36.5 billion euros</td>
<td>62,000</td>
<td>274,000</td>
<td>84,000</td>
<td>418,000 days</td>
<td>2.8 billion euros</td>
</tr>
</tbody>
</table>

Background

• COVID-19 testing\(^1\) in Germany between April 2020 and December 2021

• Time period with no or hardly any vaccinations available

• Use of PCR and antigen tests could prevent infections by 40%

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\(^1\) Results apply to alpha and delta variants of the Coronavirus; GDP=Gross domestic product; PCR=Polymerase chain reaction
Global emerging and re-emerging infectious diseases

Most of new & emerging infections occur in LMICs with limited access to diagnostics

- Enterovirus D68
- H3N2v influenza
- Anti Microbial resistant threats: CRS, MRSAS, C. difficile, N. gonorrhea
- Listeriosis
- Cyclosporiasis
- E. Coli 0157: H7
- Measles
- Human monkey pox
- Adenovirus 14
- Bourbon Virus
- 2009 H1N1 influenza
- Dengue
- Chikungunya
- Hantavirus pulmonary syndrome
- Powassan virus
- Lyme Disease
- Drug-resistant malaria
- MERS-CoV
- Typhoid fever
- H10N8 influenza
- STFTSV bunya virus
- H7N9 influenza
- E. coli 0157:H7
- SARS
- H5N1 influenza
- Nipah virus
- Enterovirus 71
- Rift Valley fever
- Ebola virus
- Plague
- Human monkeypox
- Marburg hemorrhagic fever

Newly Emerging | Re-emerging/resurging | Deliberately emerging

National Institute of Allergy and Infectious Diseases (NAID) 2017; LMICs=Low- and middle-income countries
Driving Access to Diagnostics across the Globe

Stefan Seliger |  
Head Global Access & Policy, Diagnostics Division
Accelerating access to diagnostics

Overcoming global and local access challenges

Opportunity

• Up-to-date clinical guidelines
• Payer relevant evidence close to marketing authorization
• Local capability and healthcare capacity

Barrier

• Competing healthcare system priorities
• Lack of data (health economic, populations/demographics, outcomes) and fragmented health technology assessments
• Lack of codified reimbursement mechanism and slow regulatory changes (e.g. digital, data)

Roche access strategy implementation

• Across the disease areas
• Along the patient journey
• Across the globe
• Embedded into our R&D strategy

NOT EXHAUSTIVE
Enabling access to diagnostics solutions along the patient journey
Zooming-in on four access projects in prevention, diagnosis and management

Preeclampsia Diagnosis  UK
Elecsys® sFlt-1/PIGF ratio

HIV monitoring  LMICs
Plasma Separation Card

Screening program
Diagnostic test (i.e. IVD)
GP consultation
Sensors
Hospitalization
Clinical Algos
Medicines
Clinical Decision Support

Remote monitoring
POC Test
Care coordination
Medicines

Healthcare decision support
Therapeutics
Diagnostic solutions
Others

HPV Primary Screening  Australia
cobas® HPV

Lung Cancer management  Chile
Lung cancer biomarker\(^1\) tests

1 PD-L1, ALK, EGFR, BRAF, KRAS; ROS1 HPV=Human Papilloma Virus; PD-L1=programmed death ligand 1; ALK=anaplastic lymphoma kinase; EGFR=epidermal growth factor receptor; BRAF=gene encoding B Raf; KRAS=Kirsten Rat Sarcoma oncogene; GP=general practitioner; POC=point of care; LMICs=Low- and middle-income countries; HIV=Human Immunodeficiency Virus
Cervical cancer

The most preventable and one of the most common cancers for women

- 84-90% of cervical cancer incidence and deaths occur in LMICs

- 6x more likely for women with HIV to develop cervical cancer

- 19 of the top 20 countries with the highest cervical cancer burden are in Sub-Saharan Africa

- 600k new cases per year globally, expected to grow 50% by 2040; estimated >310k deaths/year

LMICs=Low- and middle-income countries; ¹gco.iarc.fr; ²gco.iarc.fr 2021; ³WHO; ⁴unaid.org; HIV=Human Immunodeficiency Virus
The Roche cervical solution portfolio

End-to-end solution to help countries implement national screening programs

Sample collection

- Self-sampling increases access to screening

HPV DNA screening

- Screen identify those at highest risk

+ Diagnose cervical disease

- Triage identify who will benefit most

- Diagnose to confirm disease

Disease management

iThemba Life

follow up to screening, result delivery, disease education and linkage to care
Case study: HPV primary screening in Australia
Changing national clinical practice to adopt molecular HPV screening

Actions

- Supporting COMPASS trial\(^1\) (200K women) that generated local clinical and Health Economics data\(^2\)
- Engaging with thought leaders on guidelines for screening and triage
- Collaborating and sharing data that shaped HPV test requirements

Results

- On track to become 1\(^{st}\) country to achieve cervical cancer elimination
- Improved significantly access to screening through self-sampling
- Won 19 out of 20 designated screening laboratories and increased sales by 14x

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### Diversity in clinical trials

**Evolving populations require more representative patients in clinical research**

<table>
<thead>
<tr>
<th>Lead payor coverage discussions to drive changes in policy and clinical guidelines</th>
<th>Identify and activate non-traditional trial sites(^1) to recruit under-represented patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage patient advocacy groups, clinicians, and regulatory / societal bodies early</td>
<td>Identify communities &amp; geographies with highest unmet need</td>
</tr>
</tbody>
</table>

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**Studies reflecting real-world disease demographics help advance science and broaden access**

<table>
<thead>
<tr>
<th>Ph III EMPACTA:</th>
<th>Ph IV CHIMES:</th>
<th>Ph IV ELEVATUM:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Patients hospitalised with COVID-19 pneumonia</td>
<td>- Minorities with multiple sclerosis</td>
<td>- Post-approval study</td>
</tr>
<tr>
<td>- Enrolled 389 participants in &lt;1 month thereof 84% from under-represented groups</td>
<td>- Enrolling 182 Black/African American or Hispanic/Latinx patients</td>
<td>- Expanding understanding of Vabysmo in Black/African American, Hispanic/Latinx, Native American and Pacific Islander patients with DME</td>
</tr>
</tbody>
</table>

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**Today, our infectious diseases clinical trials include 51% patients with a diverse background**

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\(^1\) Selected academic centers and community-based hospitals; DME=Diabetic Macular Edema
Preeclampsia leading cause of maternal death
Short-term prediction and appropriate management of preeclampsia

Preeclampsia:
- disease with unpredictable onset and clinical picture is not always clear\(^1\)
- difficult assessment of severity prognosis\(^1\)
- timely decision critical for mother and baby\(^1\)

3-5% of all pregnancies\(^4\)

#2 leading cause of maternal death\(^5\)

Roche sFlt-1/PIGF assays help rule-out patients not at risk allowing clinicians to focus on high-risk patients\(^1,2,3\)

Case Study: Preeclampsia testing in UK

Demonstrating the value of routine testing using sFLt-1 and PIGF biomarkers

Actions

- **Completing** PROGNOSIS trial\(^1\) with local data from INSPIRE\(^2\) trial to assess impact on local hospitalization cost savings in pregnancy care management of preeclampsia\(^3\)
- **Building** a strong local and global thought leader network to educate OBGYN community

Results

- **Clinical data** demonstrated improved clinical outcomes for patients
- **Inclusion** into NHS guidelines recommended by NICE
- **Economic value** achieved by reducing hospitalization time and cost per patient

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Pregnancy preeclampsia biomarker testing reduces costs

Significant potential savings around the globe

- **GBP 344** cost saving per patient
- **GBP 24 million** annual saving for the NHS

- **USD 1,215** cost saving per patient
- **USD 717 million** annual saving for the country

>$1 billion

est. annual global healthcare savings potential

- **GBP 344** cost saving per patient
- **GBP 24 million** annual saving for the NHS

- **EUR 361** cost saving per patient
- **EUR 39 million** annual saving for the country

- **EUR 671** cost saving per patient
- **EUR 33.2 million** annual saving for the country

4. CDC (2013). Births and natality;
Lung cancer disease overview
Roche uniquely positioned to establish personalized healthcare solutions

FMI Database, Accessed November 2018 (all NSCLC)
Case Study: Lung Cancer testing in Chile
Increasing adoption of lung cancer biomarkers for targeted therapies

**Actions**

- **Partnering** with Pharma division to develop access requirements
- **Developing** a series of comparative health economic models and literature reviews to inform value messages
- **Engaging** with local clinicians, pathologists and medical society

**Results**

- **Inclusion** of ALK and PD-L1 IHC into national guideline
- **New reimbursement** code creation for PD-L1, ALK & ROS1 IHC being > 6x than other IHC tests
- **Reimbursement** for EGFR, BRAF and KRAS approved at USD 600

PD-L1=programmed death ligand 1; ALK=anaplastic lymphoma kinase; EGFR=epidermal growth factor receptor; BRAF=gene encoding B Raf; KRAS=Kirsten Rat Sarcoma oncogene; ROS1=ROS encoding oncogene; IHC=Immunohistochemistry
Diagnostics Global Access Program in 89 countries
Building local capacity, end-to-end solutions for sustainable elimination programs

Increase access
to affordable, quality diagnostics to help prevent, diagnose, monitor and manage high burden diseases

Strengthen healthcare systems
in partnership with governments, healthcare facilities, international agencies and other players

Assist countries
to establish sustainable national elimination programs to meet WHO goals

2014
Global Access Program launched for HIV viral load testing

2015
Expanded to include Early Infant Diagnosis HIV

2018
Launch cobas® Plasma Separation Card to simplify sample collection and transportation

2019
Expanded diagnostic solutions HBV/ HCV, MTB, HPV/CxCa

2020
Launch iThemba Life disease management app for HIV and COVID-19

2021
SARS-CoV-2 assay added
Launch iThemba Life CxCa

CxCa=Cervical Cancer; HPV=Human papillomavirus; HIV=Human Immunodeficiency Virus; HBV=Hepatitis B virus; HCV=Hepatitis C virus; WHO=World Health Organization
Instrument placement in LMICs
Enabling LMICs to access broad portfolio of testing solutions

Increasing capabilities and capacities in LMICs

Medical value

Before

After

Patient reach

cobas® 6800

Investing in innovation specific for emerging market needs

Emerging market analyzer [in-dev]

Compact and easy-to-operate
for small laboratories

Increased profitability
with new reagent generation

~0.9m² footprint

significant lower manufacturing costs

Expanding our business
in new market segments

First of its kind hybrid analyzer

Combines Immunochemistry and Clinical Chemistry
in one analyzer

cobas® smart ec and cobas® smart e Emerging Markets Analyzer are under development and not available for sale; expected launch 2025; cobas® smart ec analyzer will be exclusively commercialized in emerging markets; cobas® smart e analyzer will be exclusively commercialized in China; LMICs=Low- and middle-income countries
Partnering across the health ecosystem

Engagement beyond labs to shape healthcare systems and better outcomes

Co-create access strategies and scale-up patient access to diagnostics solutions

National Governments
Payers
HTA Agencies
Regulators
Parliamentarians
Professional Organizations
Global Health Organizations (e.g. WHO)
Think Tanks

Patients
Patient Organizations
Suppliers, Private sector
HCPs
Laboratories
NGOs
Hospitals
Trade Associations

HTA=Health Technology Assessments; WHO=World Health Organization; HCPs=Healthcare Professionals; NGOs=Non-governmental organization
Access as a strategic imperative for Roche

Connecting business opportunities to patient needs and societal impact

**Diagnostics Ten-Year Ambition (by 2030)**

- Double patient access to novel, high medical value diagnostics solutions

**Rapid**
Reduce time to reimbursement by 50%
- Currently 6-8 year

**Broad**
Geographic scope to scale strategies
- Including insights from over 23 markets into access strategies and scale-up

**Sustainable**
Create value for patients, customers, healthcare systems and Roche Diagnostics

Prospectively embedding patient access requirements in product development and commercialization strategies
In Conclusion

Access
along the patient journey is central to our strategy

Continuing
to invest in our internal access capabilities and our local and global external partner network

Integrating
access requirements into our portfolio development and commercialization
Driving Access to Medicine across the Globe

Michael Oberreiter |
Head Global Access, Pharmaceuticals Division
Universal Health Coverage (UHC) as defined by the WHO

Despite progress, many countries are struggling to keep pace

**UHC definition by the WHO**

“...all individuals and communities receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care across the life course.”

Despite a positive trend towards UHC, a significant number of countries failed to keep pace of the ambitious target of achieving UHC in 2030.

18 million additional HC workers are needed by 2030 to meet the SDG targets on UHC

50% of the world’s population lack access to essential HC services

~1 billion people dedicate over 10% of their household income to HC services

100 million are driven into poverty every year due to out of pocket payments on HC

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1 World Health Organization (2021); UHC=Universal health coverage; Available [here](#); SDG=Sustainable Development Goals; HC=Healthcare
Access challenges around the world

Barriers to treatment are significant and vary between and within countries

<table>
<thead>
<tr>
<th>Upper-middle and high income countries¹:</th>
<th>Low to low-middle income countries¹:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increasing healthcare costs</td>
<td>• Lack of healthcare infrastructure and healthcare professionals</td>
</tr>
<tr>
<td>• Multiple, competing budgetary priorities</td>
<td>• Low disease awareness and diagnosis</td>
</tr>
<tr>
<td>• Pandemic-related backlog of medical procedures</td>
<td>• Lack of patient support</td>
</tr>
<tr>
<td>• Lack of healthcare professionals</td>
<td>• Regulatory challenges</td>
</tr>
<tr>
<td>• Socio-economic barriers</td>
<td>• General economic pressures</td>
</tr>
<tr>
<td>• HTA systems not keeping up with scientific development</td>
<td>• Inadequate funding and insurance</td>
</tr>
</tbody>
</table>

Access barriers have been amplified by the COVID-19 pandemic

¹ World Bank 2021 classification (based on Gross National Income per capita) - World Bank Atlas method
Access opportunities around the world

Significant opportunities to increase access despite challenges

Upper-middle and high income countries:\n• Positive economic growth
• Rapidly growing middle class
• High level of mobile phone ownership

Low to low-middle income countries:\n• Increasing adoption of telemedicine / telehealth
• Cross-country collaboration
• Ageing populations driving the development of new healthcare services

1 World Bank 2021 classification (based on Gross National Income per capita) - World Bank Atlas method
## Roche’s six prioritised drivers of UHC (I)

**Access, Innovation and Coverage of NCDs and RDs are foundational elements**

<table>
<thead>
<tr>
<th>1</th>
<th>Access</th>
<th>2</th>
<th>Innovation</th>
<th>3</th>
<th>NCDs &amp; RDs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background</strong></td>
<td><strong>Expand access to standards of care</strong></td>
<td><strong>Foster patient-centric innovation</strong></td>
<td><strong>Integrate coverage of NCDs &amp; RDs</strong></td>
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<tr>
<td>• Timely and equitable access to standard of care services and interventions</td>
<td>• Environment conducive to innovation</td>
<td>• UHC cannot be achieved without the reduction of non-communicable diseases (NCD) and rare disease (RD) burden and mortality</td>
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<tr>
<td><strong>Roche’s commitments</strong></td>
<td></td>
<td>• Making innovation available to patients as soon as possible</td>
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<tr>
<td>• Tailored programmes globally with over 3 million people on patient support programmes</td>
<td>• Working towards patient-centric innovation and rapid patient access (e.g. during the COVID-19 pandemic, we worked relentlessly to identify and develop medicines to treat severe symptoms of COVID-19)</td>
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<tr>
<td>• LMICs access goal: double the number of patients receiving innovative therapies by end of 2026</td>
<td>• Develop patient-centered NCD and RD solutions through our innovative Pharma and Diagnostics portfolio (e.g. recent innovations include Evrysdi (type 1/2/3 SMA) and Hemlibra (hemophilia A))</td>
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</tbody>
</table>

UHC=Universal Health Coverage; NCDs=non-communicable diseases; RD=rare diseases; LMICs=Low- and middle-income countries; SMA=Spinal Muscular Atrophy
## Roche’s six prioritised drivers of UHC (II)

**System capacity, digital health and sustainable financing enable UHC**

<table>
<thead>
<tr>
<th>4</th>
<th>System capacity</th>
<th>Contribute to enhanced health system capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Effective service delivery of health interventions requires resilient health system capacity, including physical infrastructure, human resources and supply chains</td>
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</table>

<table>
<thead>
<tr>
<th>5</th>
<th>Digital &amp; PHC</th>
<th>Promote UHC through digital health</th>
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<tbody>
<tr>
<td></td>
<td>• Digital health and the resulting data-driven and personalised healthcare are innovative key facilitators of UHC</td>
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</table>

<table>
<thead>
<tr>
<th>6</th>
<th>Sustainable financing</th>
<th>Enable sustainable financing and resource allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• More efforts are needed to support countries in mobilising and deploying sustainable finance to achieve their health-related goals</td>
<td></td>
</tr>
</tbody>
</table>

### Background
- More efforts are needed to support countries in mobilising and deploying sustainable finance to achieve their health-related goals

### Roche’s commitments
- Supporting awareness, capacity and diagnosis initiatives (e.g. Project Echo; City Cancer Challenge)
- Simplified modes of administration to reduce HC system burden (e.g. Susvimo in AMD/DME; Phesgo in HER2+ breast cancer)
- Develop portfolio of patient-centric digital solutions (e.g. Home Vision Monitor App helps nAMD patients to monitor disease progression from home; Floodlight App enables disease progression of MS patients to be monitored remotely)
- Serve as a thought partner in developing financing schemes, including prepaid schemes, risk pooling, performance-based pricing & conditional contracts (e.g. International differential pricing)

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UHC=Universal Health Coverage; AMD=Age-Related Macular Degeneration; DME=Diabetic Macular Edema; PHC=Personalized Healthcare; nAMD=neovascular Age-Related Macular Degeneration; MS=Multiple Sclerosis
Pharma Corporate Access Goal
Making sure that patients who need our therapies can receive them

LMICs=Low- and middle-income countries

Double patient number for our innovative medicines in LMICs by end of 2026
Pharma Corporate Access Goal

**Double patient number for our innovative medicines in LMICs by end of 2026**

2. Cambridge University press: ([Link](#)); LMICs=Low- and middle-income countries.
Pharma Corporate Access Goal

Opportunities to remove barriers and substantially increase access

- **Inclusive clinical trials**: Support health equity and diversity in our clinical research and trials
- **Regulatory filing & Reimbursement**: Substantial acceleration of regulatory filling & reimbursement approval
- **Affordability**: Support development of new, integrated and tailored affordability solutions for different population health/group needs
- **Capacity enablement**: Support infrastructure development through external partnerships
- **Partnerships**: Mobilize partnerships with global/regional organizations to solve a gap in local care

**Access levers**

**Mid-term outcomes**

**Our mission**

Accelerate & adapt internal processes

Expand local capabilities

Design & deploy fit-for-purpose integrated solutions
Pharma Corporate Access Goal
The journey towards sustainable health financing is composed of multiple, complementary funding solutions

More financial protection & sustainable, equitable access

Government and compulsory insurance schemes
- Public funding
  - General budget & tax
  - Ring-fenced funds
  - Payroll-based contributions
  - Risk-based premiums
- Private funding schemes
  - Voluntary pooling
    - Private commercial insurance
    - Community-based insurance
    - Mutual aid funds
  - Blended financing
    - Multi-party, public-private dedicated funds
    - Investments & bonds
  - Other private
    - Crowdfunding
    - Donations
    - PAPs/ PSPs
  - Point of care payments
    - Direct payments
    - Financial instruments: Loans & instalments

Out-of-pocket
- Other private
  - Crowdfunding
  - Donations
  - PAPs/ PSPs
- Voluntary pooling
  - Private commercial insurance
  - Community-based insurance
  - Mutual aid funds
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  - Multi-party, public-private dedicated funds
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Less financial protection & equitable access
- Point of care payments
  - Direct payments
  - Financial instruments: Loans & instalments
- Other private
  - Crowdfunding
  - Donations
  - PAPs/ PSPs
- Voluntary pooling
  - Private commercial insurance
  - Community-based insurance
  - Mutual aid funds
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  - Multi-party, public-private dedicated funds
  - Investments & bonds
- Public funding
  - General budget & tax
  - Ring-fenced funds
  - Payroll-based contributions
  - Risk-based premiums

- Shorter-term funding solutions addressing point-of-care affordability
- Unlock rapid access, but for limited population
- Align with short-term business objectives
- Ecosystem-shaping solutions with long-term sustainable impact
- Implementation is more complex or resource demanding
- Align with global health (e.g. UHC) & long-term business priorities

PAP=Patient Access Program; PSPs=Patient Support Program; UHC=Universal Health Coverage
Examples of local access initiatives

Sustainable health financing needs multiple, complementary funding solutions

**Canada:**
- Support underserved communities, including First Nations (e.g. partnership on COVID-19 research & financial support for mental health project)

**United States:**
- Liver cancer 6th most common cancer related mortality with very low screening rates, especially among Latinx and African American communities
- Engaged with communities and other experts to launch awareness campaign leading to a growing number of website visits and receiving support from key community stakeholders

**New Zealand:**
- Indigenous populations of ~15% with health outcomes falling behind NZ European data
- Employed a Māori health leader improving equity to engage with newly established Māori Health Authority

**LMICs access goal & diverse clinical trials**

LMICs=Low- and middle-income countries
Access initiatives: Project ECHO using telementoring

Addressing lack of healthcare workers and capacity challenges

Project ECHO is a video telementoring platform. It enables community caregivers to participate in guided practice to learn new medical techniques, allowing patients to receive high quality care from local providers.

Collaborative model of medical education and care management

Increasing access to specialty treatment in rural and underserved areas

Engages clinicians in a continuous learning system & partners them with specialist mentors at an academic medical centre

Policymakers are recognising the potential of ECHO to expand capacity to treat more patients sooner, using existing resources

Roche’s partnership with ECHO began in October 2020 and we have country pilots at different stages of the process (not exhaustive):

- Indonesia
- Ivory Coast
- Canada
- Philippines
- India
- Pakistan
- Malaysia

ECHO—Extension of Community Healthcare Outcomes; Project ECHO website
## Access initiatives: Cancer Health Fund in Nigeria

### Addressing funding challenges

<table>
<thead>
<tr>
<th><strong>Opportunity</strong></th>
<th><strong>Action</strong></th>
<th><strong>Impact</strong></th>
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<tbody>
<tr>
<td>Opportunity for the creation of a sustainable funding source that:</td>
<td>Roche led a private sector coalition alongside the cooperation of the World Bank / IFC which resulted in the establishment of the Nigerian Cancer Health Fund (CHF) with the aim to:</td>
<td>- Funding pathway for less well off patients to access SoC cancer treatment</td>
</tr>
<tr>
<td>• Leverages on previous cancer prioritisation efforts in Nigeria</td>
<td>• Guide the Federal Ministry of Health towards becoming a strategic purchaser of services rather than an investor in infrastructure</td>
<td>- Quality control over providers leading to a strengthened cancer environment</td>
</tr>
<tr>
<td>• Addresses challenges of limited access to standard of care due to affordability issues</td>
<td>• Lift affordability restrictions to SoC for poor Nigerian patients and strengthening cancer care ecosystems nationally</td>
<td>- Collaborative governance model between public and private sector</td>
</tr>
<tr>
<td></td>
<td>• ~$4m allocated since 2020 – a potential for over 400 people to receive care for breast, prostate and cervical cancers</td>
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</table>

IFC=International Finance Corporation; SoC=Standard of Care
**Access initiatives: EMPOWER in Kenya**

*Addressing local infrastructure & capacity building needs through community centers*

| Community level engagements on awareness, screening and modification of health seeking behavior |
| Championing for inclusion of cancer management in UHC across Kenya |
| Advocacy for strengthening of Kenya healthcare systems in dealing with NCDs |
| Establishing cancer screening and treatment centers in the county referral hospitals in collaboration with county governments |
| Demonstrating disability is not inability: Incorporation of marginalized women living with disabilities (blind and deaf) as community health workers employed by the counties in the screening clinics |

| Launch of EMPOWER cancer screening and treatment clinics | 16 |
| People screened across 11 counties through community-based mass screening | 25,502 |
| Women screened for breast and cervical cancer in the 8 clinics | 10,434 |
| Patients receiving treatment in the 8 centers | 950 |
| Integrated approach in NCD care: diabetes and hypertension screenings conducted along cancer screening | 10,414 |

UHC=Universal Health Coverage; NCDs=Non-communicable diseases
Actemra & Ronapreve for SARS-CoV-2 infections

Enabling global access to innovative medicines during a global health emergency

Dedicating global manufacturing network

Investing into R&D

- Worldwide > 1mn people with severe or critical COVID-19 treated with Actemra
- 250,000 doses committed at cost to WHO and ACT-A partners to distribute to LMICs; Put on WHO’s list of prequalified medicines, allowing faster and easier procurement by governments and NGOs in LMICs
- Signed R&D partnerships to accelerate drug development
- Dedicated largest manufacturing facilities + working with industry partners to maximise production and overcome global supply challenges

1 Development terminated; WHO=World Health Organization; DAA=direct acting antiviral; NGOs=Non-governmental organizations; LMICs=Low- and middle-income countries
Hemlibra in Haemophilia A
Enabling global access to the new standard of care

Hemlibra, new global SOC 5 years after initial launch

- Hemophilia A, a serious bleeding disorder, is a rare genetic disease that affects 1 in 4,000 births worldwide
- Hemlibra, a bispecific Ab, has a unique MOA, which restores the blood clotting cascade by replacing a non-functional factor without inducing inhibitors
- Within 5 years, Hemlibra has reached a 34% market share in US/EU-5

Broad and rapid access

- One of the largest clinical programs (1,000 patients in total) with innovative endpoints and trial populations reflective of broad real-world patient populations
- Significant focus on access for all, especially in LMICs
- Close collaborations with World Federation of Hemophilia (WFH), European Hemophilia Consortium (EHC) and local communities
- Partnerships focused on diagnosis, patient education and training of HCPs
- Nearly 1,000 patients across 30 countries have received Hemlibra prophylaxis through the WFH Humanitarian Aid Donation program

Number of countries with full reimbursement\(^1\)
(inhibitor and non-inhibitor patients)

<table>
<thead>
<tr>
<th>Year</th>
<th>HIC</th>
<th>UMIC</th>
<th>LMIC</th>
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<tbody>
<tr>
<td>2018</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2019</td>
<td>10</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2020</td>
<td>8</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2021</td>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2022</td>
<td>31</td>
<td>12</td>
<td>5</td>
</tr>
</tbody>
</table>

- Approved in >100 countries with 15,000 patients treated worldwide
- Full or partial access for inhibitor patients in >100 countries, and access for both inhibitor and non-inhibitor patients in almost 50 countries

SOC=standard of care, Ab=Antibody, HCP=Healthcare Professional, MOA=mechanism of action; LMICs=Low- and middle-income countries; UMIC=Upper-middle income countries, HIC=High income countries

\(^1\) by 2022, additional 25 LMICs with partial access through WFH
Evrysdi in Spinal Muscular Atrophy (SMA)
Under 5 years from clinic to patient

Evrysdi, most prescribed SMA treatment in the US

- SMA is a rare disease that affects approximately 1 in 10,000 births worldwide; Untreated, it is the most common genetic cause of infant death
- Evrysdi has a unique MOA, being an oral SMN2 RNA splicing modifier, which is systemically available throughout the CNS and periphery

Broad and rapid access

- Partnership with patient advocacy groups, particularly SMA Foundation helped deliver the broadest pivotal clinical development program for SMA patients, matching real-world patient populations
- Accelerated regulatory pathways selected wherever possible to ensure rapid pricing and reimbursement submissions
- Access pillars (awareness and diagnosis) and value based pricing are helping to drive reimbursement decisions reflecting sustainable value
- Actively partnering with SMA community to remove barriers and support access and treatment for the many untreated patients (over 50%)

Number of countries with reimbursement

- Over 5,000 patients treated worldwide
- Approved already in 80 countries less than 2 years after the initial launch
- Reimbursed already in 29 countries, of which 6 UMIC. Under active reimbursement review in 30+ countries

MOA=mechanism of action; CNS=central nervous system; UMIC=Upper middle income countries; HIC=High income countries; Evrysdi (Risdiplam) in collaboration with PTC Therapeutics and the SMA Foundation
Access initiatives: Principles for evaluating impact
Measuring success or failure and providing accountability to all stakeholders

**Transparency**
Commit to third-party review, sharing, and publishing (where relevant) methods and results

**Sustainability**
Partner with in-country experts when possible (e.g., local academia) and align with local data collection and reporting requirements to avoid additional burden

**Efficiency**
Leverage existing data and tools; assess the cost-benefit of any new data collection

**Credibility**
Collect high-quality data and use appropriate analytical methods

**Fit for Purpose**
Respond to stakeholder evidence needs and deliver actionable findings

**Example:** Measuring outcome of newly established ECHO model for breast cancer in the Philippines:
- # of breast cancer cases diagnosed in the rural area
- Time from first visit to treatment
- Number of referrals to tertiary oncology hospitals
Tailored pricing solutions developed together with our HC partners
Ensuring as many patients as possible have access to our innovations

Finance-based solutions
Manage uncertainty around the budget impact with simple confidential discounts or rebates by reducing the price

Performance-based solutions
Paying for the level of clinical or health benefit a treatment delivers, rather than simply for the medicine itself

Patient support programs
Providing direct support to patients, such as support to receive the right diagnosis, to access treatment or to manage their disease

International Differential Pricing
Creating country-specific prices for LMICs considering the GDP per capita, purchasing power parity, public healthcare expenditure per capita and the Human Development Index

• Reviewed patient journey with local stakeholders & government to understand challenges; Result was a portfolio basket deal and public-private partnership to reduce cost of care, control the budget and offer extra services (e.g. training, supporting screening & the national database)

• ‘Pay for Response’ for Polivy in DLBCL based on clinical primary efficacy endpoint

• Agreement to show us Polivy outcomes in routine clinical practice; impact to be assessed after one year

• PSP: Program co-created with patients to enhance patient’s ability to access and receive Ocrevus; Services include: Patient navigation, reimbursement assistance, financial assistance, free goods, infusion adherence, coordination and assistance and clinic support

• 10,529 patients enrolled to date and 44,380 infusions supported

• IDP approach in Georgia to achieve regional access for multiple sclerosis (60% of the total eligible patients in the country) and national access for HER2 breast cancer and SMA (100% of eligible patients)
Our pricing approach reflects WHO’s fair pricing dimensions

Make innovation available for patients today and tomorrow

**Future innovation**

Our pricing strategy allows us to investing into high risk and complex areas of medicine year after year

- 2021: CHF 13.7bn R&D spending (21.8% of sales); late-stage pipeline with 10 NMEs + 40 AIs in Phase III
- Development costs for a new drug in the US increased from USD 179 m to USD 2.6 bn from 1970s to 2010s

**System context**

Differentiated prices to reflect the needs of each country’s healthcare system and regulatory environment

International differentiated pricing factors in ability to pay and system readiness

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**Health impact**

Benefit and impact a medicine brings to patients, healthcare systems & society

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Value lies in the eye of the beholder

There is a need for mutual understanding across different stakeholders

PFS = Progression Free Survival; WHO = World Health Organisation; NGOs = Non-governmental organizations

- **Roche & industry**
- **WHO / NGOs / governments**
- **Payers**
- **Healthcare providers**
- **Caregivers**
- **Patients**

**SOCIETAL VALUE**
Societal impact (e.g. environmental, employer impact)

**POPULATION HEALTH VALUE**
Accumulated population health outcomes and system impact

**PATIENT & CAREGIVER VALUE**
Science & clinical outcomes (PFS)  Additional patient value (convenience)  Additional caregiver value (relief)
Doing now what patients need next