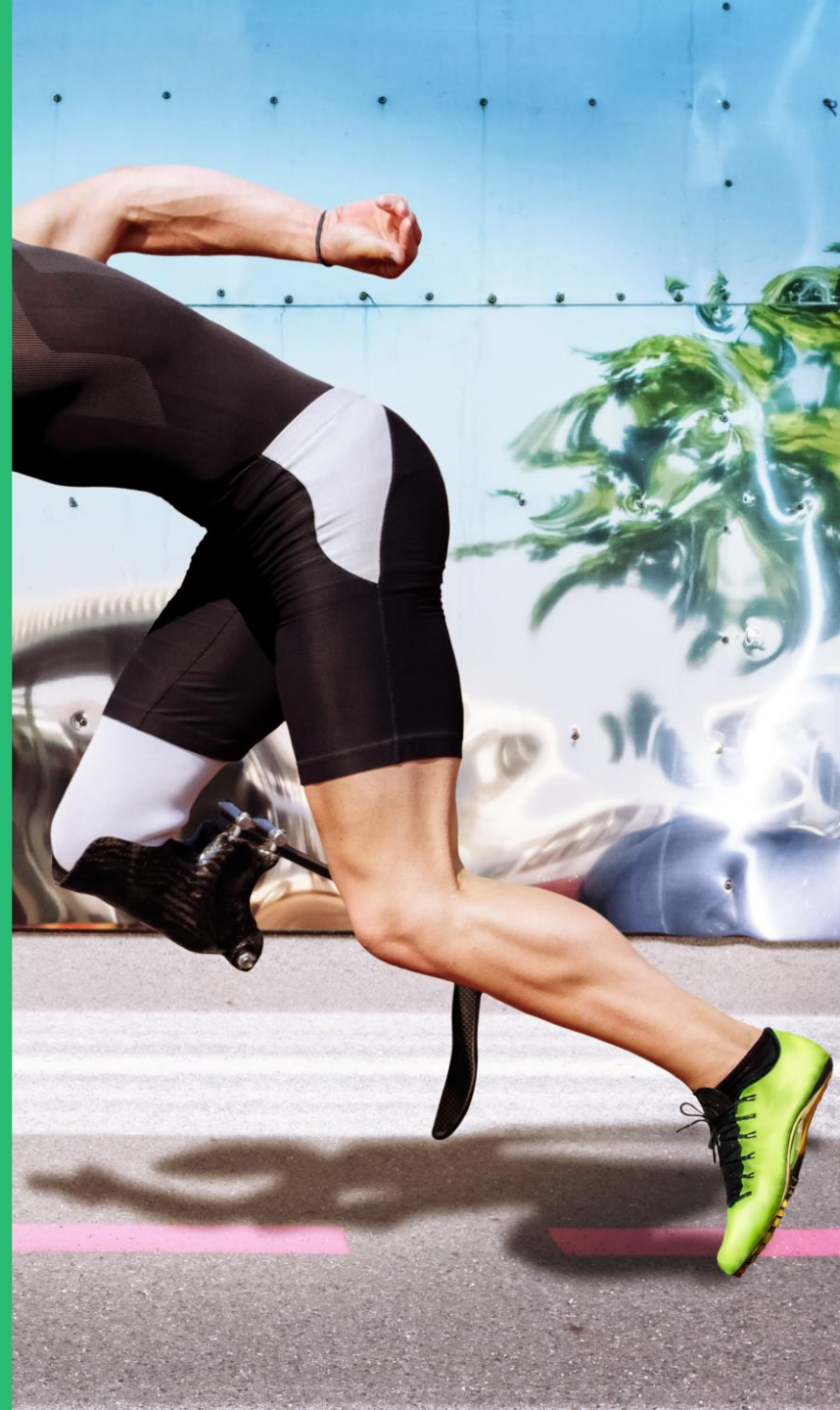
BOSTON CONSULTING GROUP

A Global Perspective on Health System Strengthening

2019 SAAPI Conference – Dr Jonathan Lim

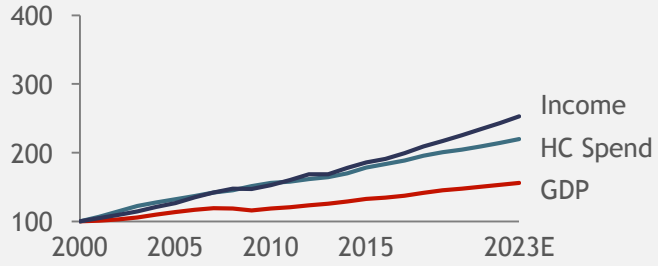
16 MAY 2019

SAAPI

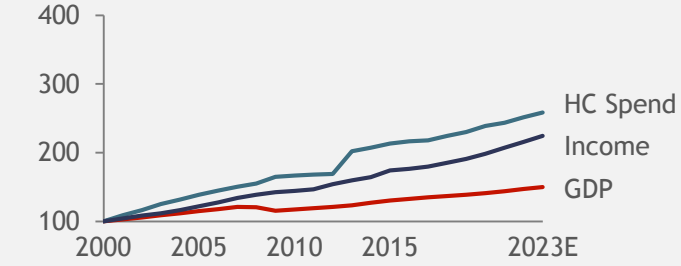


However, this development has come at a cost

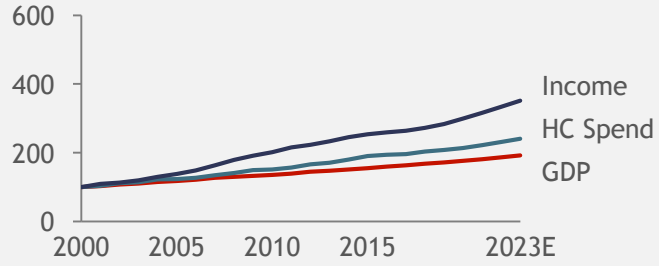
HC expenditure 2018: 17.3% of GDP



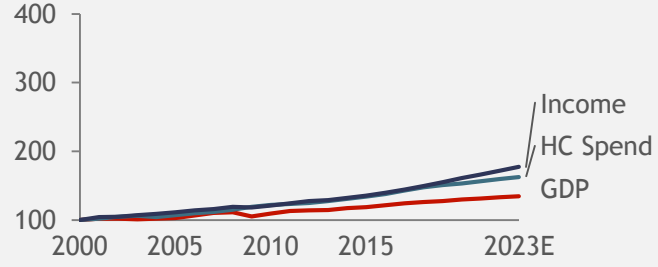
HC expenditure 2018: 9.8% of GDP



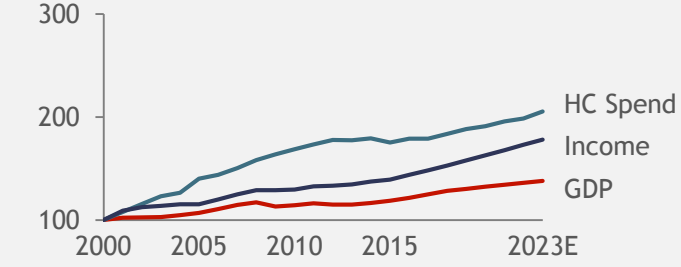
HC expenditure 2018: 9.2% of GDP



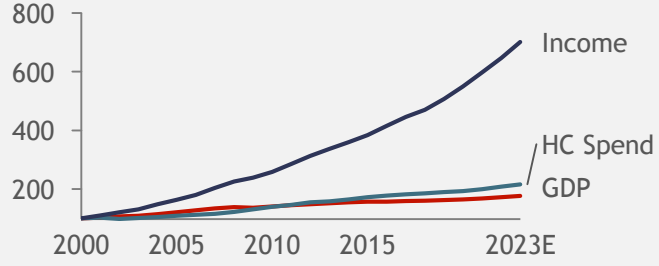
HC expenditure 2018: 11.5% of GDP



HC expenditure 2018: 10.10% of GDP

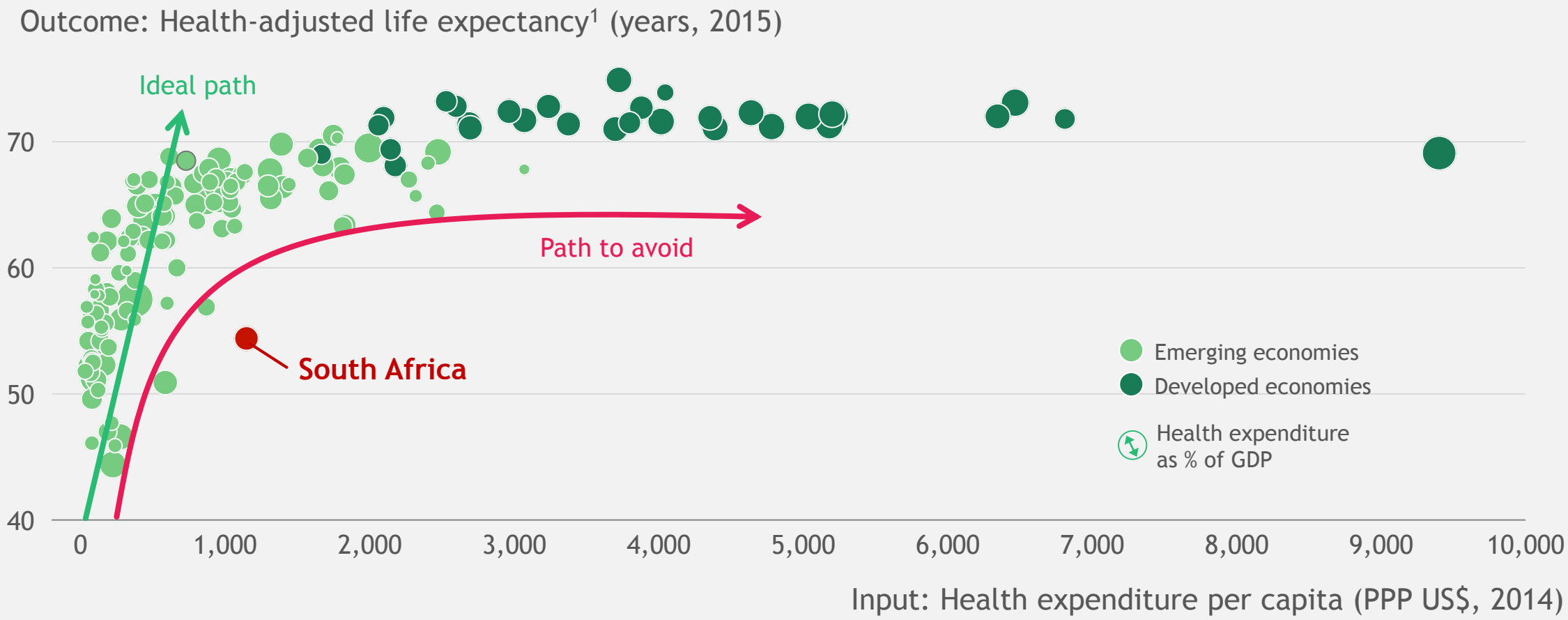


HC expenditure 2018: 8.6% of GDP



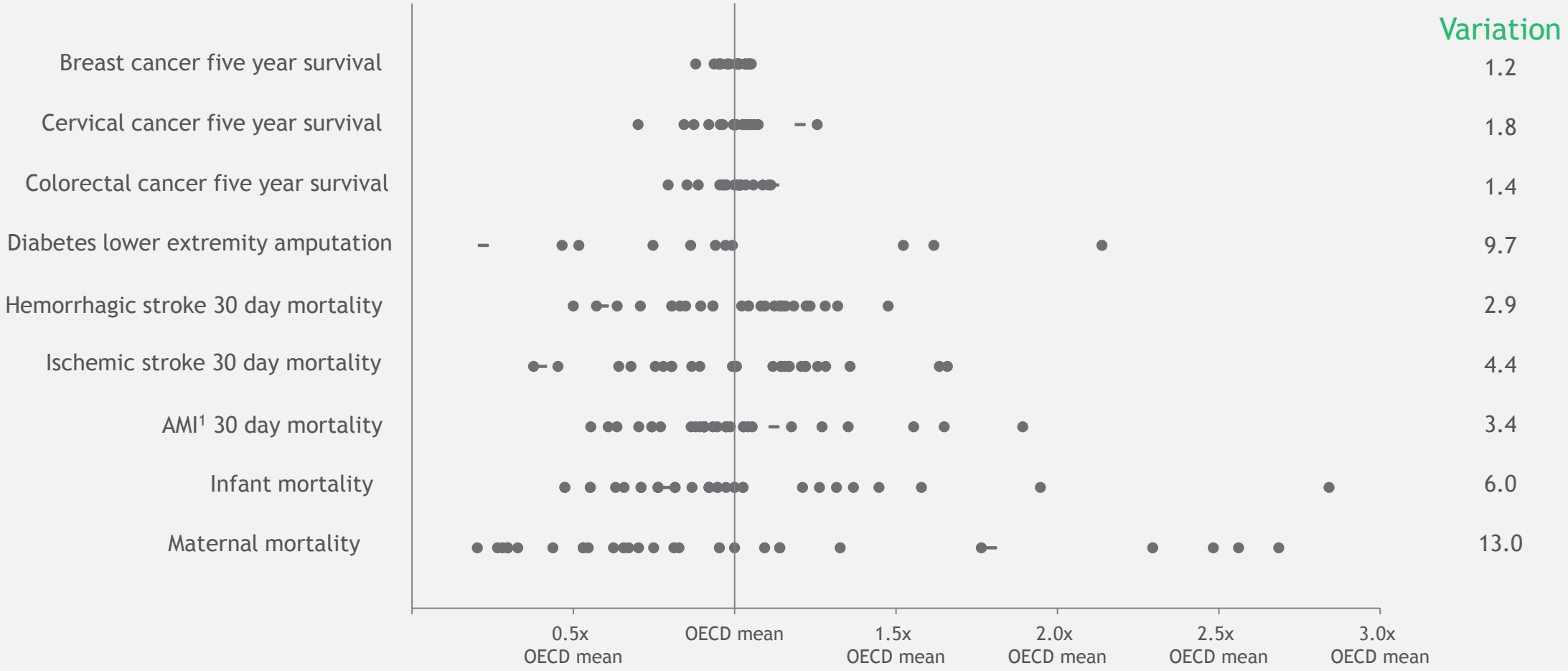
Notes: Index 100 at 2000, based on local currencies; Income = Personal Disposable Income
Source: WHO; EIU (May 2019); BCG analysis

More importantly, greater spending does not necessarily yield better results



1. Health-adjusted life expectancy: Estimates the number of years in full health an individual is expected to live at birth by subtracting the years of ill health (weighted according to severity) from overall life expectancy. Sources: WHO, BCG analysis

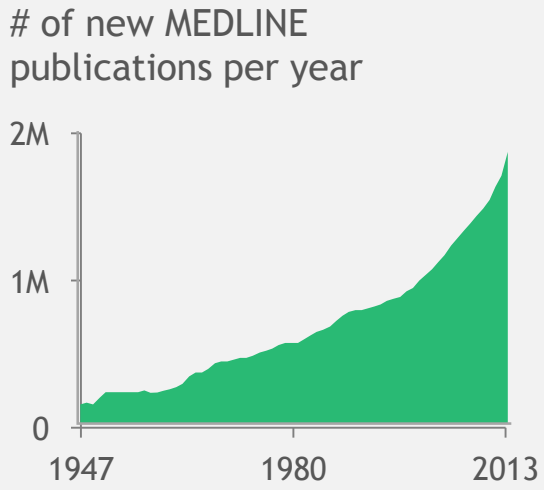
There remains massive variation in health outcomes across OECD



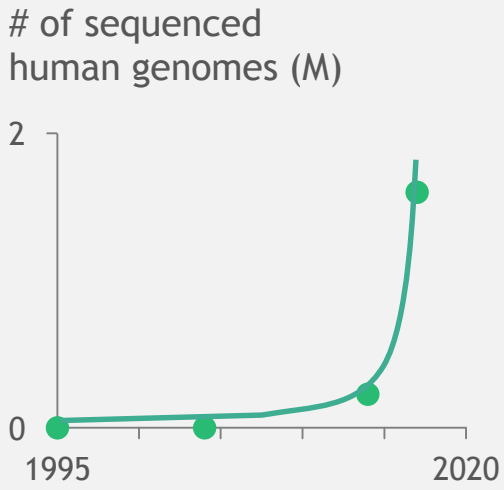
1. Acute Myocardial Infarction
Note: Most recent data from 2011-13 used. Mexico and OECD candidate countries not included
Source: OECD Health May 2016, BCG analysis

Part of this is driven by the exponential increase in health care complexity

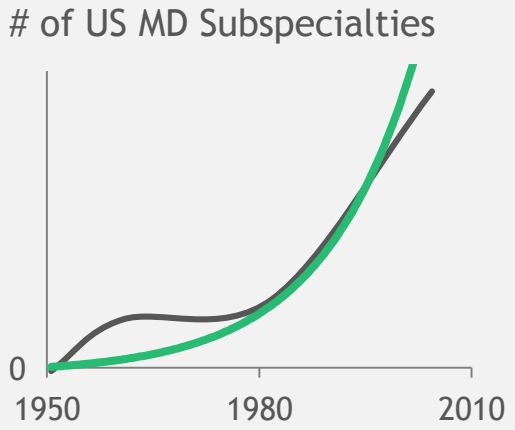
Exponential increase in medical knowledge



Exponential increase in number of human genomes sequenced

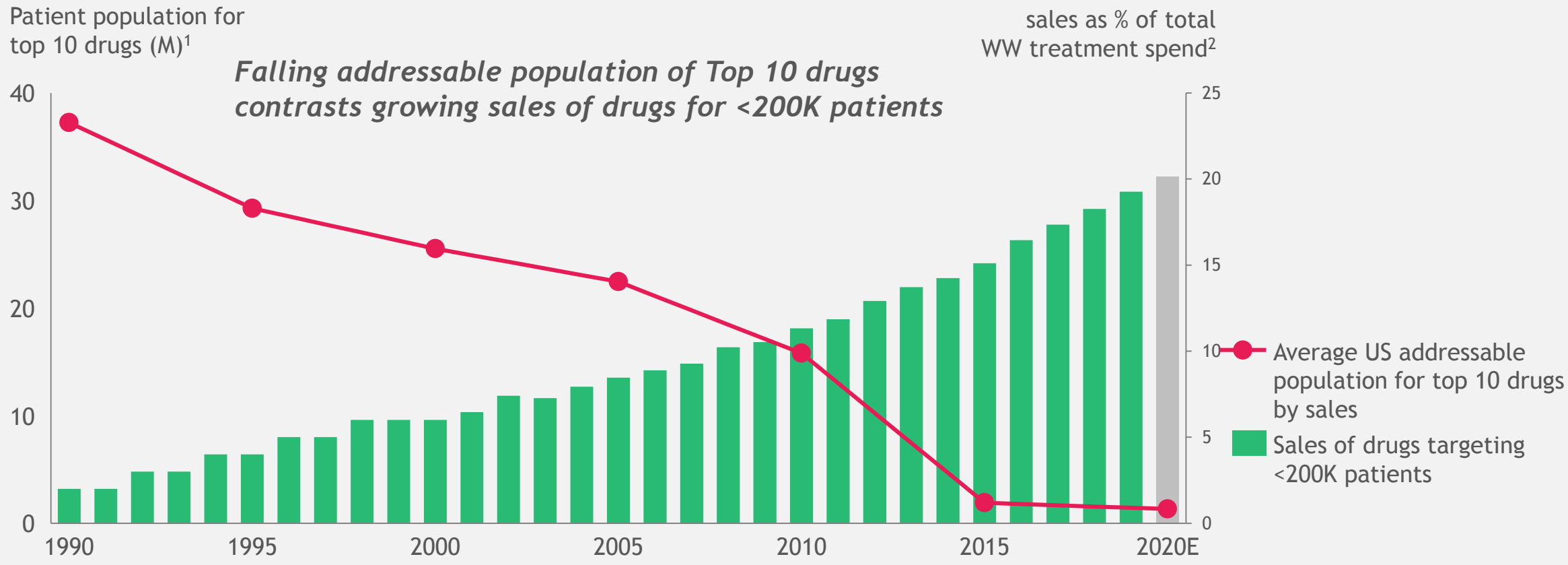


Exponential growth in medical practice complexity



Source: BCG analysis

For industry and regulators, complexity is evidenced by interventions targeted at ever smaller pop. segments



1. For top 10 drugs by sales, addressable population calculated based on prevalence of first/major indication marketed. Where prevalence data not available, incidence rates were used instead 2. % sales of orphan drugs before 2000 was extrapolated from trend; Source: EvaluatePharma®, BCG analysis

Value-based health care (VBHC): Designing people-centered health systems

Source: BCG analysis

Leaders around the world are embracing the concept of VBHC

Bruno Bruins

Health Minister in the Netherlands

"It was agreed that by 2022, outcome information would be available for 50% of the disease burden, and that shared decision-making in the consultation room will be promoted"

Omar Ishrak

Chairman and CEO, Medtronic

"Moving to a value-based healthcare system is the only thing that can keep MedTech from being commoditised"

Christophe Weber

CEO, Takeda

"The acquisition of Shire will enable Takeda to significantly accelerate its transformational journey to become a value-based, R&D driven global biopharmaceutical leader…"

Source: Press search, BCG

The full potential of VBHC to strengthen health systems will require new levels of collaboration

By Pharma and MedTech

By Hospitals and Insurers

By Regulators and Policymakers

Starting point for industry: Relentless focus on improving value for targeted populations

- Which segments are underserved?
- Where do we see an unmet need?

- What outcomes to measure?
- How to measure and analyse data?
- What tools are needed to make the process seamless?

- What are the key pain points?
- What interventions can improve value?

Source: BCG analysis

Oshi offers clear proposition for all stakeholders

For patients…

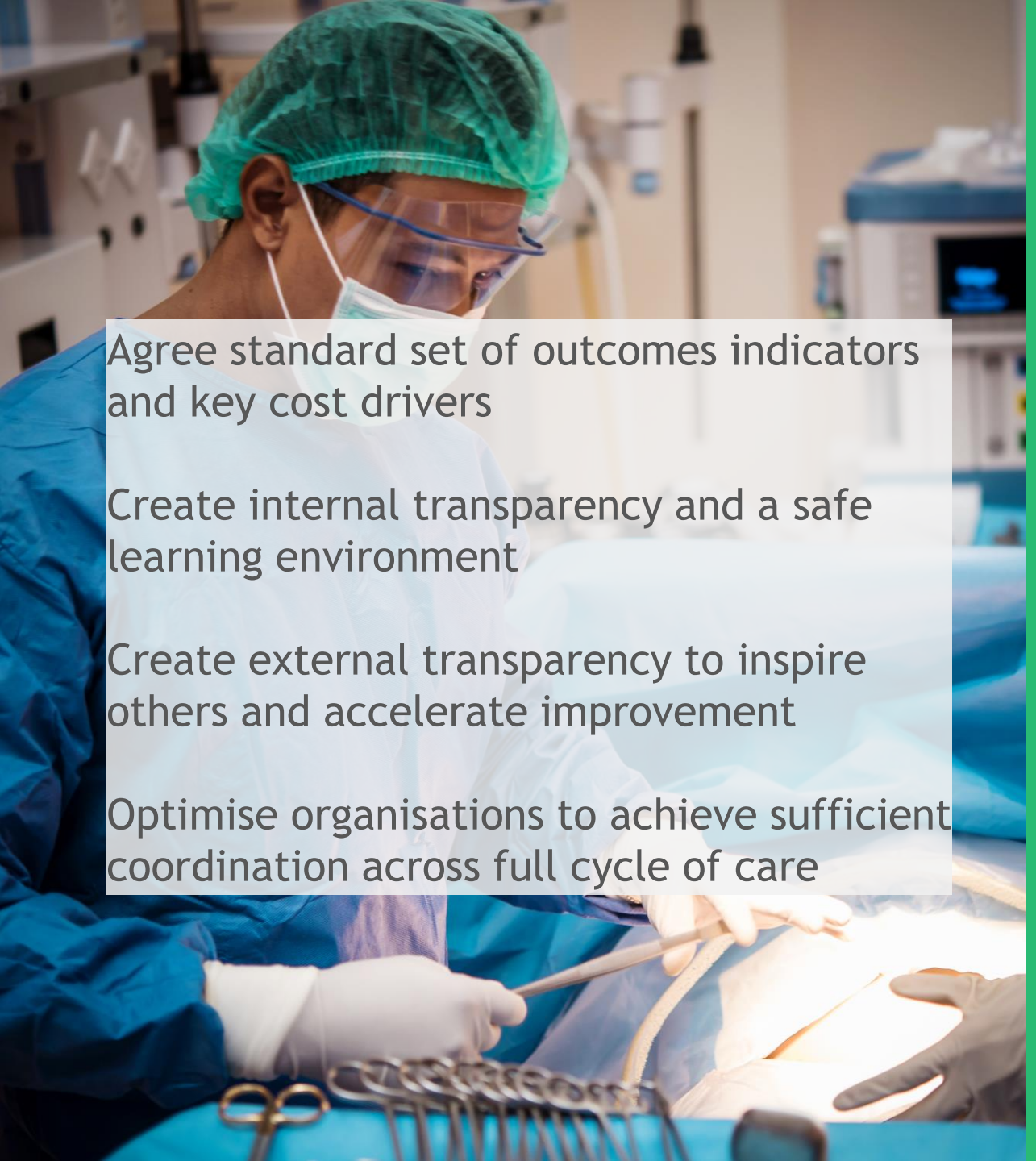
For care providers…

OSHI HEALTH

For academic institutions…

For payers…

Source: Oshi Health; BCG

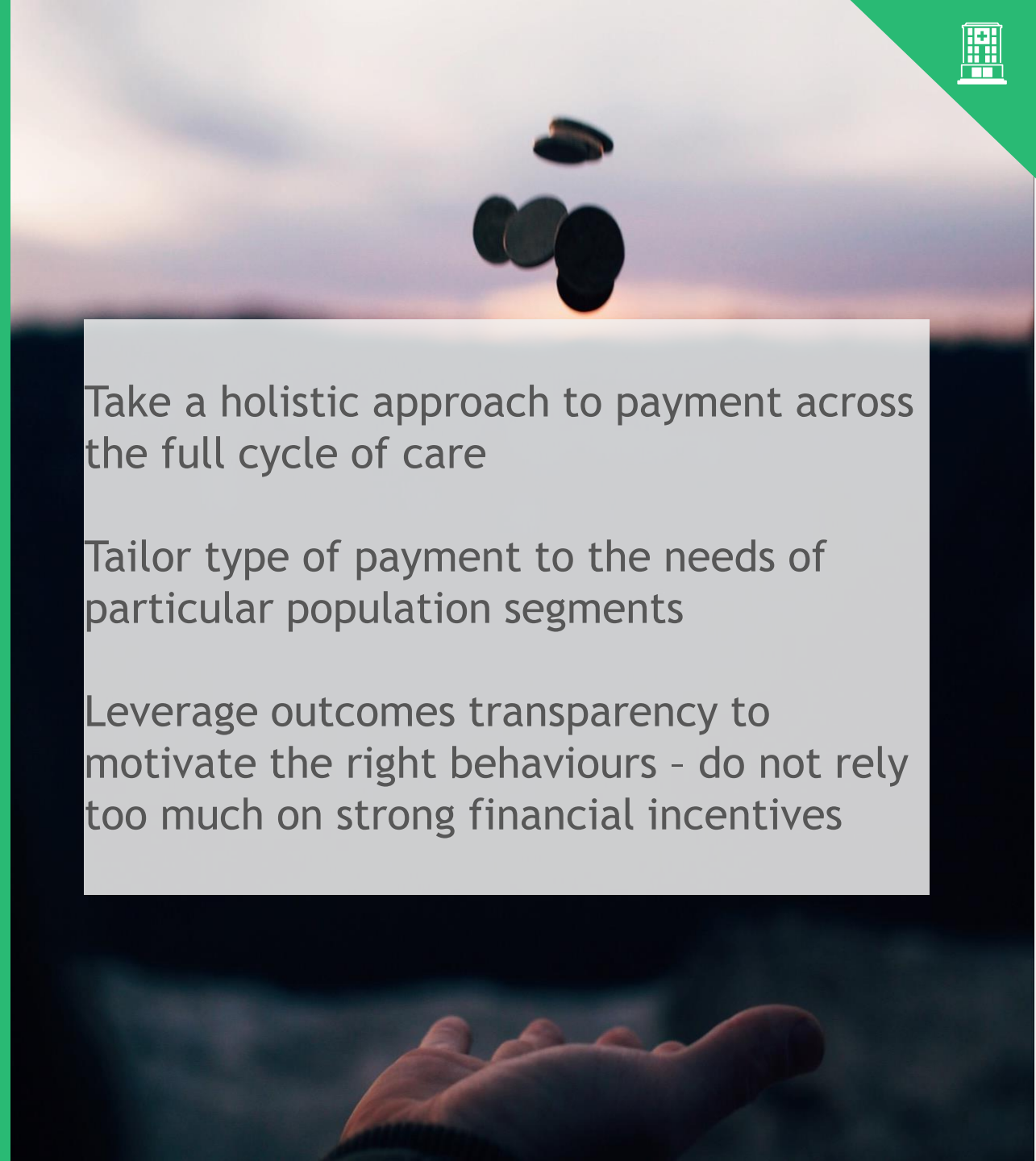


Agree standard set of outcomes indicators and key cost drivers

Create internal transparency and a safe learning environment

Create external transparency to inspire others and accelerate improvement

Optimise organisations to achieve sufficient coordination across full cycle of care



Take a holistic approach to payment across the full cycle of care

Tailor type of payment to the needs of particular population segments

Leverage outcomes transparency to motivate the right behaviours – do not rely too much on strong financial incentives

ICHOM is a global non-profit defining outcomes standards

Founded in 2012 by Harvard Business School Professor Michael Porter, Boston Consulting Group, and Karolinka Institutet

INSTITUTE FOR STRATEGY AND COMPETITIVENESS

BCG BOSTON CONSULTING GROUP

Karolinska Institutet

International focus with involvement of multiple countries around the world

>30 Countries

>650 Organisations

>15 National Registries

OECD PaRIS programme

Open source and peer reviewed standard sets

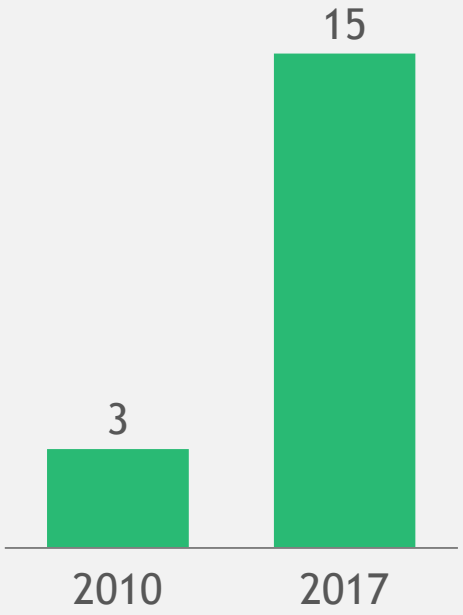
26 Sets covering 50-60% of the global disease burden

Endorsed by the OECD to map key disease areas

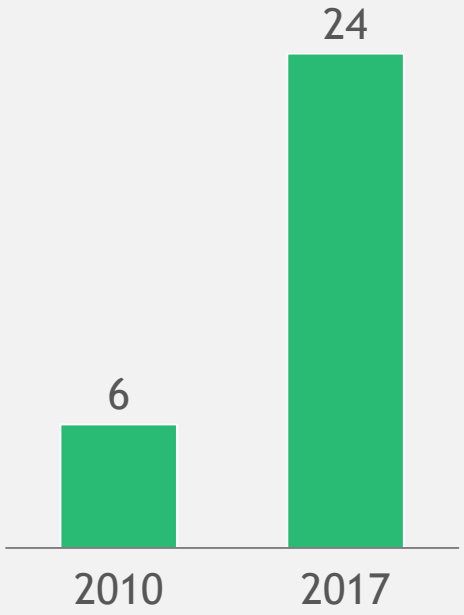
Independent, non-profit

Regulators are responding to increasing HC complexity by encouraging innovative approaches to clinical trials

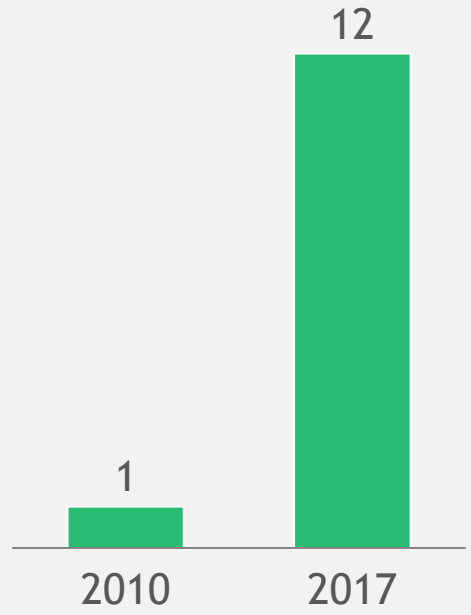
Number of trials where a novel clinical trial design was used in an approved FDA submission



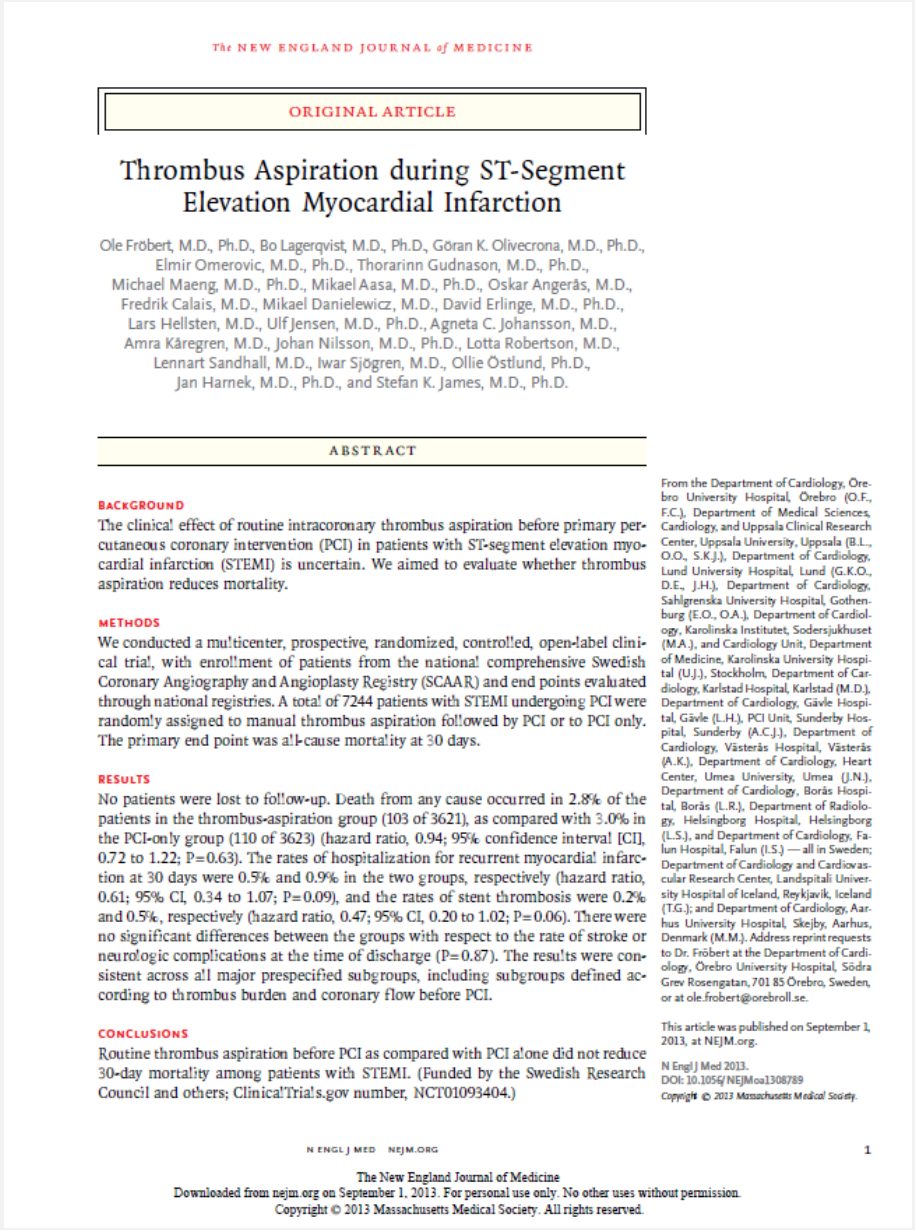
Number of approved submissions which used surrogate endpoints



Number of approved submissions which included studies with PROs and/or Real World Data



Source: FDA Summary view data compilation; BCG analysis



The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Thrombus Aspiration during ST-Segment Elevation Myocardial Infarction

Ole Fröbert, M.D., Ph.D., Bo Lagerqvist, M.D., Ph.D., Göran K. Olivecrona, M.D., Ph.D., Elmir Omerovic, M.D., Ph.D., Thorarinn Gudnason, M.D., Ph.D., Michael Maeng, M.D., Ph.D., Mikael Aasa, M.D., Ph.D., Oskar Angerås, M.D., Fredrik Calais, M.D., Mikael Danielewicz, M.D., David Erlinge, M.D., Ph.D., Lars Hellsten, M.D., Ulf Jensen, M.D., Ph.D., Agneta C. Johansson, M.D., Amra Kåregren, M.D., Johan Nilsson, M.D., Ph.D., Lotta Robertson, M.D., Lennart Sandhall, M.D., Iwar Sjögren, M.D., Ollie Östlund, Ph.D., Jan Harnek, M.D., Ph.D., and Stefan K. James, M.D., Ph.D.

ABSTRACT

BACKGROUND

The clinical effect of routine intracoronary thrombus aspiration before primary percutaneous coronary intervention (PCI) in patients with ST-segment elevation myocardial infarction (STEMI) is uncertain. We aimed to evaluate whether thrombus aspiration reduces mortality.

METHODS

We conducted a multicenter, prospective, randomized, controlled, open-label clinical trial, with enrollment of patients from the national comprehensive Swedish Coronary Angiography and Angioplasty Registry (SCAAR) and end points evaluated through national registries. A total of 7244 patients with STEMI undergoing PCI were randomly assigned to manual thrombus aspiration followed by PCI or to PCI only. The primary end point was all-cause mortality at 30 days.

RESULTS

No patients were lost to follow-up. Death from any cause occurred in 2.8% of the patients in the thrombus-aspiration group (103 of 3621), as compared with 3.0% in the PCI-only group (110 of 3623) (hazard ratio, 0.94; 95% confidence interval [CI], 0.72 to 1.22; P=0.63). The rates of hospitalization for recurrent myocardial infarction at 30 days were 0.5% and 0.9% in the two groups, respectively (hazard ratio, 0.61; 95% CI, 0.34 to 1.07; P=0.09), and the rates of stent thrombosis were 0.2% and 0.5%, respectively (hazard ratio, 0.47; 95% CI, 0.20 to 1.02; P=0.06). There were no significant differences between the groups with respect to the rate of stroke or neurologic complications at the time of discharge (P=0.87). The results were consistent across all major prespecified subgroups, including subgroups defined according to thrombus burden and coronary flow before PCI.

CONCLUSIONS

Routine thrombus aspiration before PCI as compared with PCI alone did not reduce 30-day mortality among patients with STEMI. (Funded by the Swedish Research Council and others; ClinicalTrials.gov number, NCT01093404.)

From the Department of Cardiology, Örebro University Hospital, Örebro (O.F., F.C.), Department of Medical Sciences, Cardiology, and Uppsala Clinical Research Center, Uppsala University, Uppsala (B.L., O.O., S.K.J.), Department of Cardiology, Lund University Hospital, Lund (G.K.O., D.E., J.-H.), Department of Cardiology, Sahlgrenska University Hospital, Gothenburg (E.O., O.A.), Department of Cardiology, Karolinska Institutet, Södersjukhuset (M.A.), and Cardiology Unit, Department of Medicine, Karolinska University Hospital (U.J.), Stockholm, Department of Cardiology, Karlstad Hospital, Karlstad (M.D.), Department of Cardiology, Gävle Hospital, Gävle (L.H.), PCI Unit, Sunderby Hospital, Sunderby (A.C.J.), Department of Cardiology, Västerås Hospital, Västerås (A.K.), Department of Cardiology, Heart Center, Umea University, Umea (J.N.), Department of Cardiology, Borås Hospital, Borås (L.R.), Department of Radiology, Helsingborg Hospital, Helsingborg (L.S.), and Department of Cardiology, Falun Hospital, Falun (I.S.) — all in Sweden; Department of Cardiology and Cardiovascular Research Center, Landspitali University Hospital of Iceland, Reykjavik, Iceland (T.G.); and Department of Cardiology, Aarhus University Hospital, Skejby, Aarhus, Denmark (M.M.). Address reprint requests to Dr. Fröbert at the Department of Cardiology, Örebro University Hospital, Södra Grev Rosengatan, 701 85 Örebro, Sweden, or at ole.frobert@orebroll.se.

This article was published on September 1, 2013, at NEJM.org.

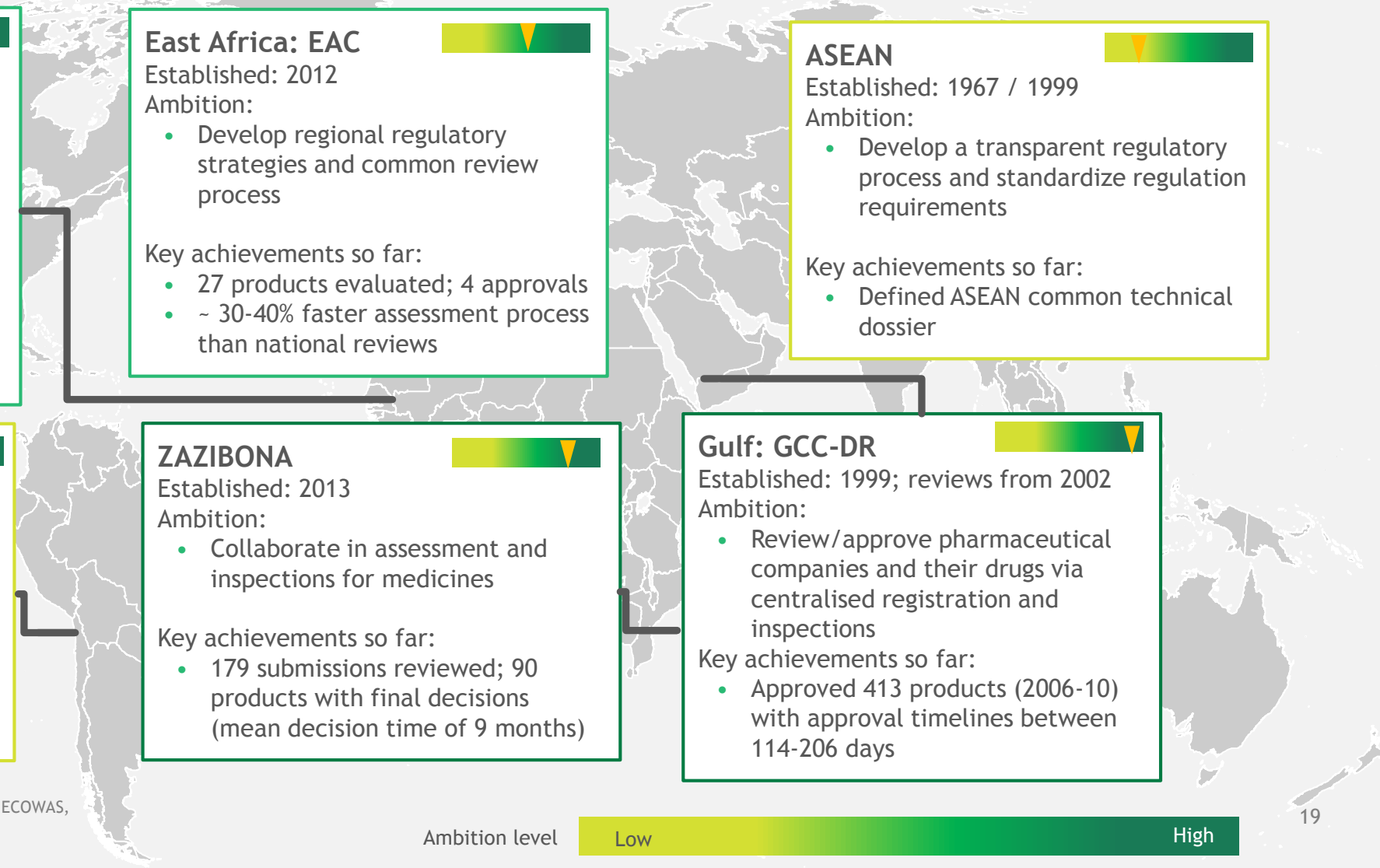
N Engl J Med 2013.
DOI: 10.1056/NEJMoa1308789

"Unfortunately, too many of the decisions made today about health and healthcare are not supported by high quality evidence. Prospectively designed registries and cohort studies in the context of clinical practice are highly valuable, and randomised trials conducted in the context of clinical practice...may be the most important source of knowledge in the future…

– Former FDA Commissioner Robert M. Califf

Source: Speech by Commissioner Robert M. Califf to the 2016 FDLI Annual Meeting

Regulatory harmonisation across national borders enables access to medicines that drive better outcomes



West Africa
Established: WAHO, 2009
MRH project, 2015
Ambition:
- Strengthen registration, quality control of medicines, pharma production and pharmacovigilance

Key achievements so far:
- Developed common regulatory submission process
- Review sessions for submissions planned for end 2018

East Africa: EAC
Established: 2012
Ambition:
- Develop regional regulatory strategies and common review process

Key achievements so far:
- 27 products evaluated; 4 approvals
- ~ 30-40% faster assessment process than national reviews

ASEAN
Established: 1967 / 1999
Ambition:
- Develop a transparent regulatory process and standardize regulation requirements

Key achievements so far:
- Defined ASEAN common technical dossier

PANDRH
Established: 1999
Ambition:
- Strengthen regulatory functions, and develop guidelines for regulation of health technologies

Key achievements so far:
- Developed and adopted 23 technical documents

ZAZIBONA
Established: 2013
Ambition:
- Collaborate in assessment and inspections for medicines

Key achievements so far:
- 179 submissions reviewed; 90 products with final decisions (mean decision time of 9 months)

Gulf: GCC-DR
Established: 1999; reviews from 2002
Ambition:
- Review/approve pharmaceutical companies and their drugs via centralised registration and inspections

Key achievements so far:
- Approved 413 products (2006-10) with approval timelines between 114-206 days

Source: Primary research – PANDRH, ASEAN, WAHO, WAEMU, ECOWAS, EAC, ZAZIBONA, GCC-DR websites; WHO; NCBI; BCG analysis

Ambition level: Low — High

Now is the time for us all to shape and strengthen the health system of the future


BCG
BOSTON
CONSULTING
GROUP
bcg.com