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Where is healthcare today and where is it heading?

THINK HEALTH CONFERENCE ROMANIA

Presentation by John Leach | 13th October 2016

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McKinsey is the world's leading consulting firm for healthcare with vast experience across all functions in healthcare

- Employ over **2,000** healthcare consultants including 150 MDs
- **1,000+** healthcare payor-provider projects in EMEA region since 2006
- **~850** healthcare strategy projects worldwide in last 5 years
- **~400** healthcare operations projects worldwide in the last 5 years
- **~400** healthcare organizational projects worldwide in the last 5 years
- Worked with over **20** Academic Medical Centres across number of topics

McKinsey&Company

The Challenge

Solutions

Barriers

The Future?

Healthcare systems globally face a Tsunami of challenges

Workforce Shortages

Huge Variation

Aging Population

Money

The Challenge

Solutions

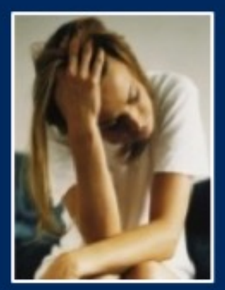
Barriers

The Future?

It is not all bad, we know what to do!

Shift from hospitals towards primary and secondary prevention

Care has historically taken a 'one size fits all' rather than being organised around the needs of patients

Examples of people whose needs are more similar than different	Common health and social care needs
Mostly healthy adults	▪ Quick, convenient and urgent access to routine care and preventative services ▪ Continuity for single episode of care
Older people with long term conditions	▪ Sustained continuity of care ▪ Close coordination of services ▪ Proactive care to prevent acute admissions
People with Severe and Enduring Mental Illness 	▪ Outreach/outbound care ▪ Close coordination of services ▪ Access to specialist care

SOURCE: Team analysis

Minute Clinic

Context

Primary care in US suffer from 3 problems

- Short (or standard) opening hours, and the need for an appointment
- Long-waiting times in traditional settings (e.g., urgent-care clinics)
- Clinic visits are expensive as involve seeing a Doctor

Model

- Walk-in clinic in shopping malls treating routine patient ailments
- Highly standardised model
- Patient complaints such as sore throat, conjunctivitis, ear infection and sinus infection are listed on a big menu board
- Staffed by nurse practitioners who must hold a 4 year bachelor's degree and a two-year master's degree, both in nursing, who can prescribe medications with some physician oversight
- Nurses supported by IT with up-to-date medical guidelines for diagnoses, best practices for treatment of common ailments, drug interaction database and protocols

Impact

Quality

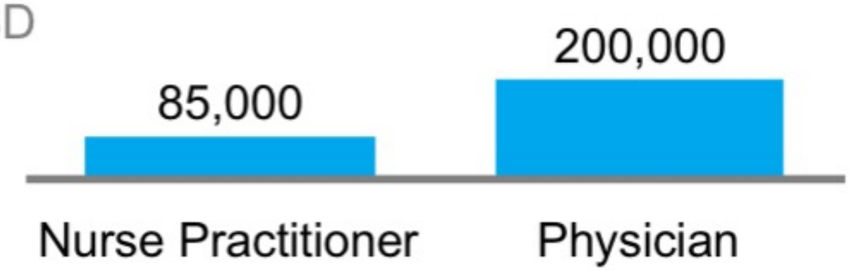
- Services by trained nurse practitioners and physician assistants
- 99% customer satisfaction rating

Cost

- Use of nurse practitioner reduces cost per site

Cost of clinical staff

USD



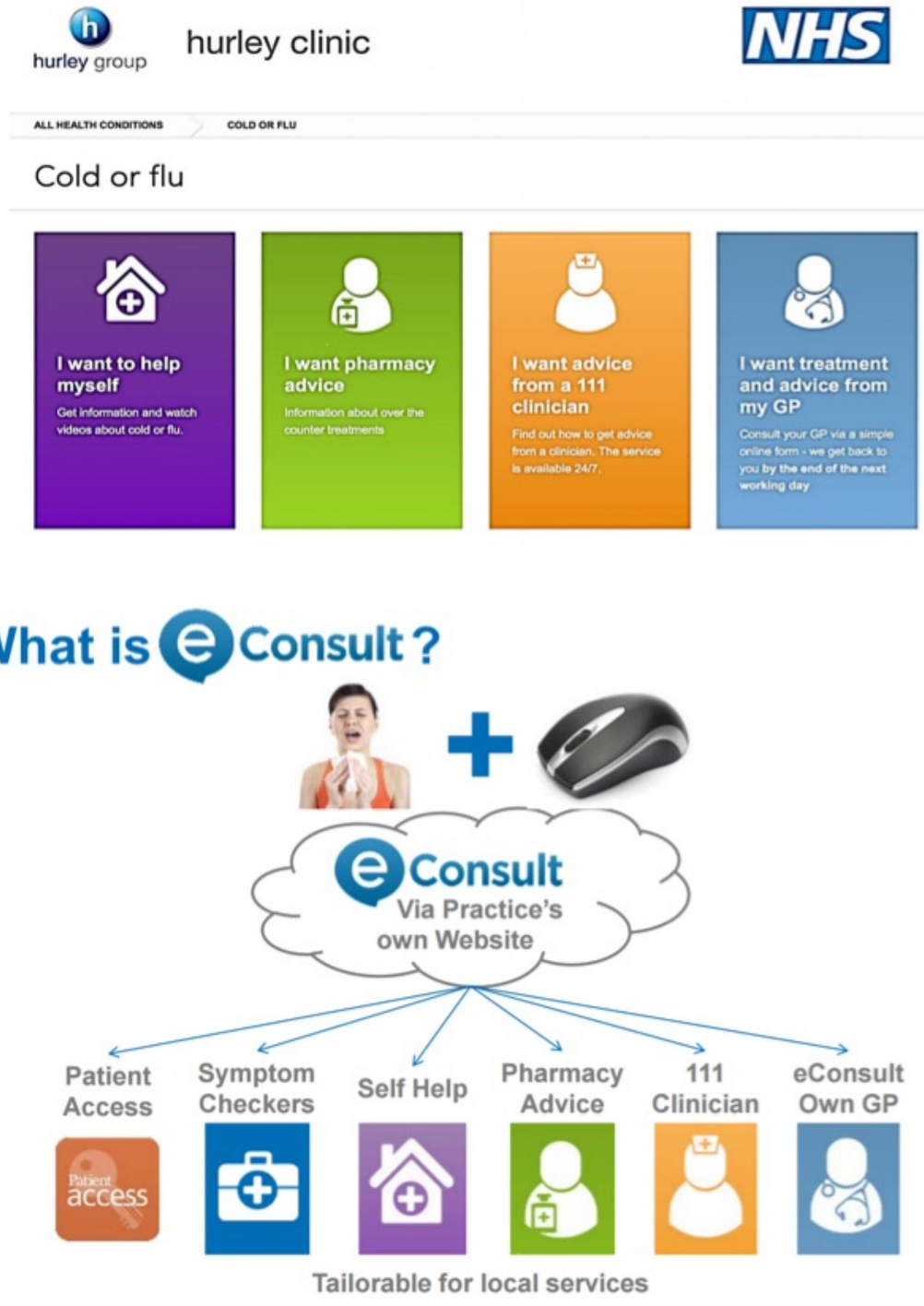
Access

- MinuteClinic has been growing its network of retail clinics at a fast rate (over 1,100 locations)

SOURCE: Company website; Articles

Self-Care Decision Tools

Patient Self-manages or selects to eConsult



Why interesting?

- Patient friendly website with **patient information** and **supporting treatment guidelines supporting self-management**
- Patients can also request an **e-consultation** or book a face to face appointment if they are unsure

Impact Achieved by 6 month Pilot…

- 1 in 5 patients used website, 1/3rd used self-help and 18% self-managed
- 14% would have used urgent care
- 60% of eConsults closed remotely
- Digital disinhibition (depression, rectal bleeding) and red flags e.g., cancer
- 3 for 1 return on investment

SOURCE: Hurley Clinic

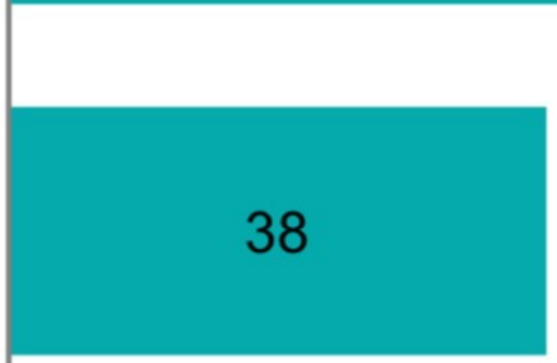
Medicall Home in Mexico:
24/7 access to primary care on the phone

Medicall Home
Tu acceso a la salud.®

% of incoming calls to medical call centre
Average over 10 years

Instances where health problems were immediately solved through the medical call center

Instances where callers were referred to network providers under unrivaled/contractual market price conditions



- 2/3 of calls treated on phone immediately
- Serves over 4.5 million people per year
- Handles over 90,000 monthly instances handled

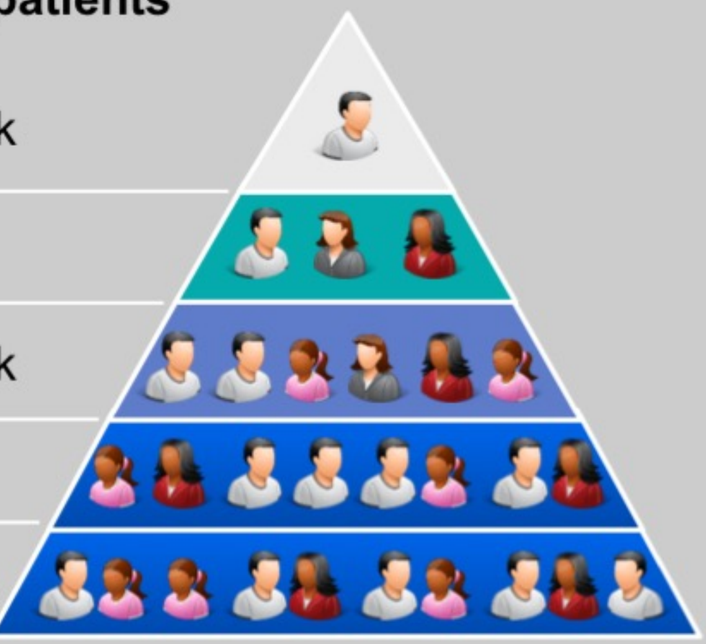
- Patients have 24/7 access to medical advice and referrals
- Call center agents rely on protocols developed by the Cleveland Clinic
- MedicallHome ensures quality by pre-verifying clinicians in referral network
- Low investment / high utilization model with single call center

SOURCE: Innovations in Healthcare

Integrated Care

Success in coordinated care

Know your patients



Redesign care pathways and coordinate care

1. Clinical protocols & care packages
2. Individual patient care plans
3. Care coordination and delivery
4. Perform-ance review

Enforce with enablers

Aligned incentives and reimbursement models

Accountability and joint decision-making

Information transparency and decision support

Clinical leadership and team working

Patient engagement

Sustain and scale up performance

SOURCE: Analysis of Integrated Care Literature; McKinsey

ChenMed, primary-care led physician group providing a one-stop shop for elderly patients with multiple chronic conditions

ChenMed
A Family of Companies

Key elements of model of care

- Focus on relationship with patients, e.g., **>85% GP continuity** for patients
- Offer **longer appointments**
- **Multidisciplinary teams** based at centre

- Provide non-emergency **transport** for patients for scheduled appointments or last-minute walk-ins

- Digital robotic prescription centre means **patients leave with their medication**

- Achieve 49% reduction in hospital admissions
- Ensure near real-time information flows (especially A&E visits and admissions) and review admissions
- 650% higher 'net promoter' score

SOURCE: Interviews; Clinic visits; Company website

It is not all bad, we know what to do!

Shift from hospitals towards primary and secondary prevention

Hospitals need to start to look very different

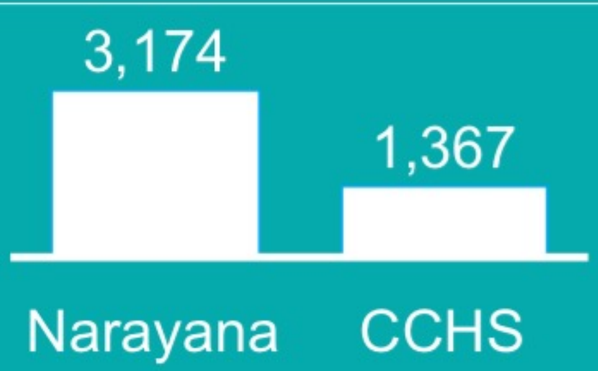
Specialist services need scale to deliver high quality, efficient care

Narayana Hrudayalaya Hospitals
Caring with Compassion

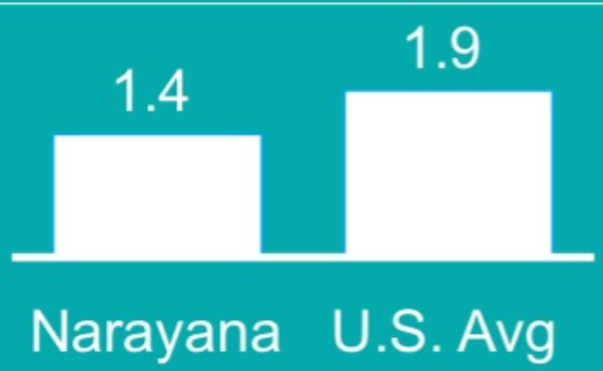
Innovation heart surgery model in India

- Lower cost, $2000 per CABG, driven by economies of scale
- Improved quality, driven by high volumes and specialization
- Theatres operate c.18hrs a day
- Expert surgeons perform only the most complex parts of the operation

Cardiac bypass procedures, 2008
Number



Cardiac bypass mortality rate, 2008
Percent



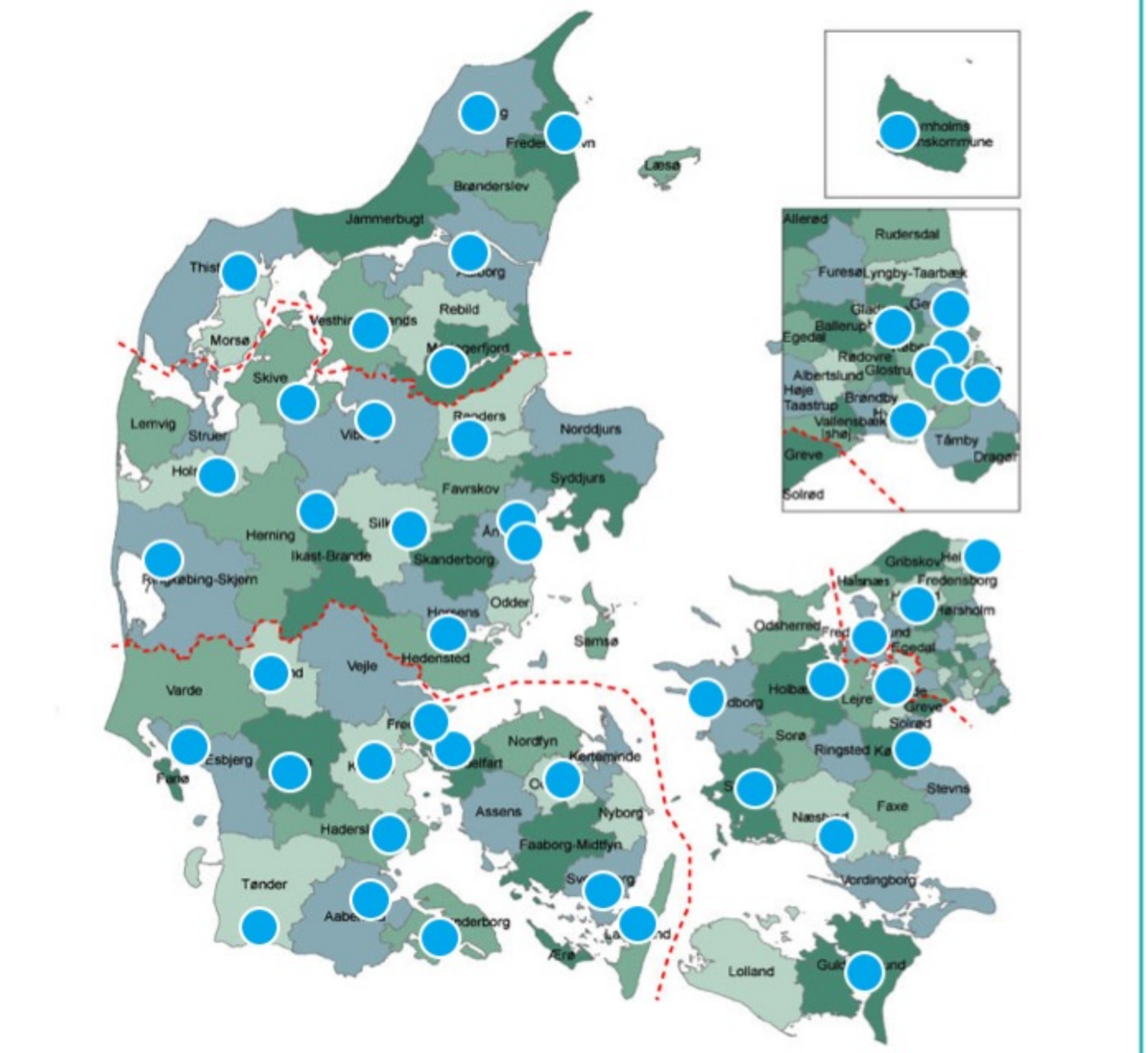
Global expansion

- Raising funds to build 300-bed multi-specialty hospital in Cayman Islands (1 hr flight from Miami)
- Prices expected to be 50% lower than in the U.S.
- Plans include expanding to 2,000-beds within next 10 years

SOURCE: Wall Street Journal, Deloitte LLP, International Medical Tourism Journal

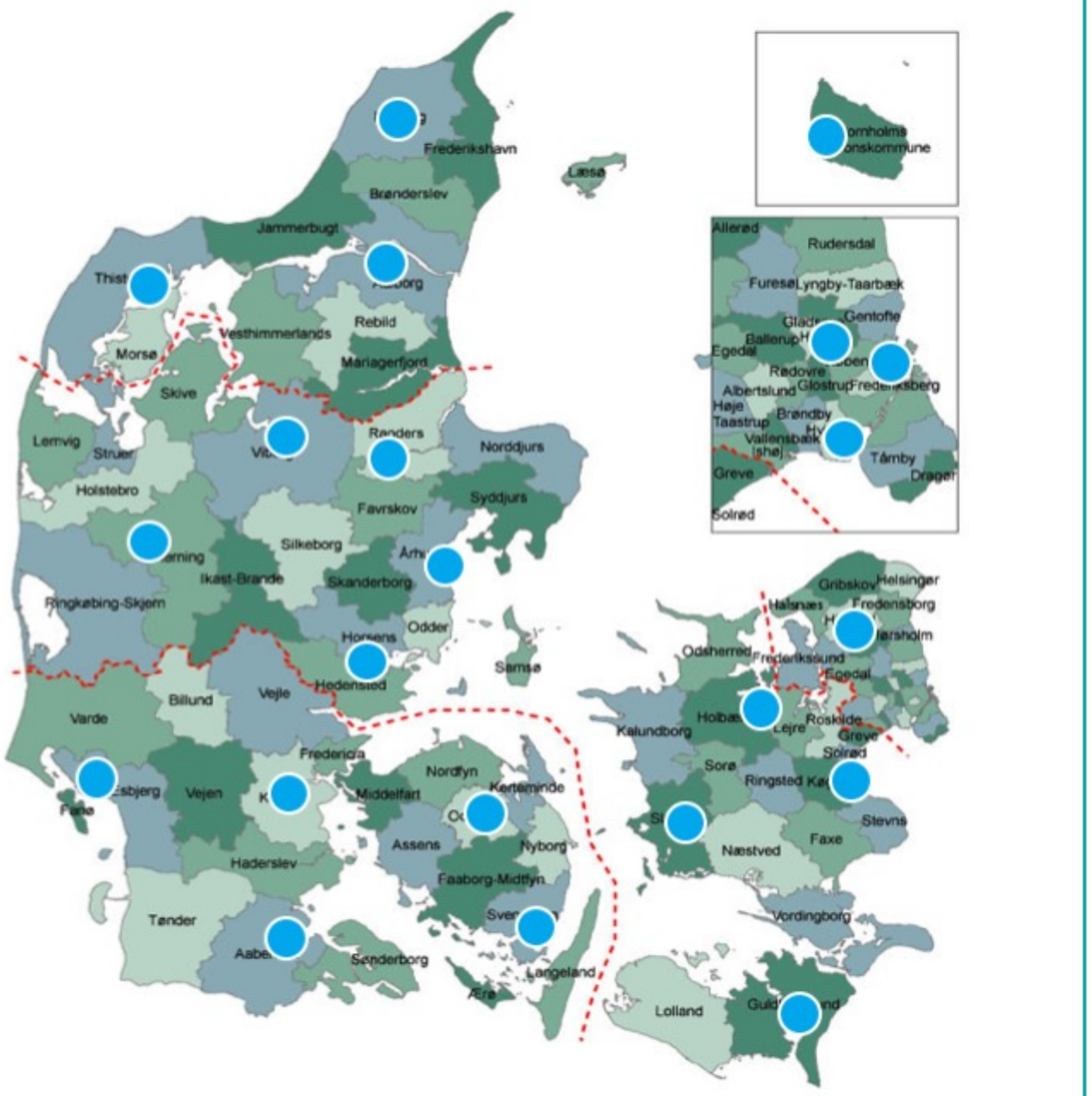
Payors and system managers around the world are starting to proactively shape the provider landscape

49 A&Es in Denmark, 2005



Population: 5.4 million,
1 A&E per 110,000 citizens

22 A&Es in Denmark, 2020



Population: 5.7 million,
1 A&E per 260,000 citizens

SOURCE: McKinsey

It is not all bad, we know what to do!

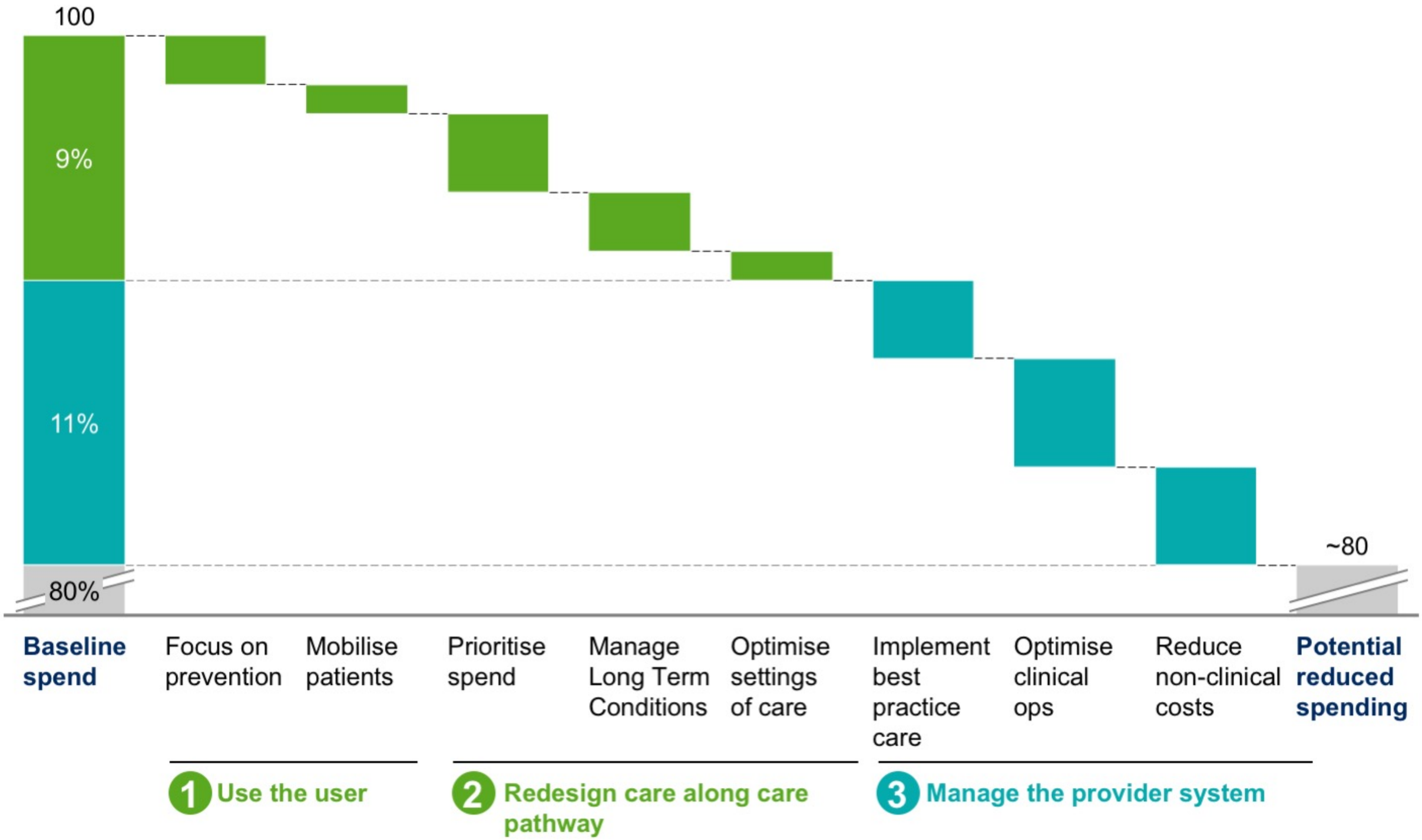
Shift from hospitals towards primary and secondary prevention

Hospitals need to start to look very different

Massive Shift in Productivity

The majority of improvement needs to come from provider productivity

Potential 5 year savings vs. trend (% of total system cost)



SOURCE: McKinsey

The armoury of provider levers

Area of cost	Cost lever	Examples
Staff	Cost per staff	▪ Change skill mix through team working
	Number of staff	▪ Reduce duplication and low value tasks ▪ Automate through new technology ▪ Encourage and support self-management ▪ Standardise care pathways and increase flow ▪ Consolidate back office
Supplies	Unit cost of supplies	▪ Work with other providers to negotiate ▪ Reduce number of product variants ▪ Encourage non-branded supplies
	Quantity of supplies used	▪ Standardise use ▪ Make costs transparent ▪ Reduce waste
Asset[1]	Operating cost of estates and equipment	▪ Reduce downtime during operating hours ▪ Move to longer days / 7 days ▪ Consolidate sites ▪ Consolidate support services

1 Assumes ability to exit cost after change is made, for example an increase in utilisation will not save money unless fixed cost can be exited

Capio

Example of Capio – Scaling across 4 countries

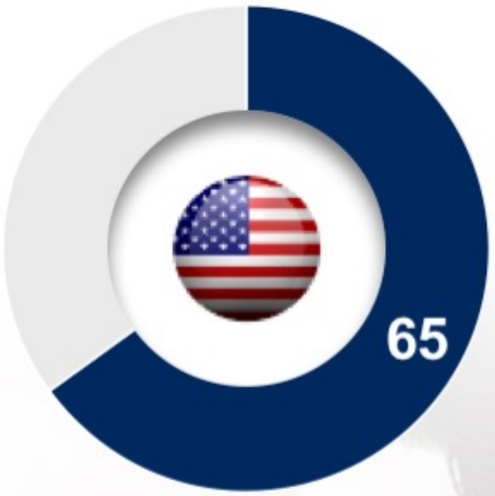
Capio focus on consistent operational excellence across 36 hospitals and more than 100 sites

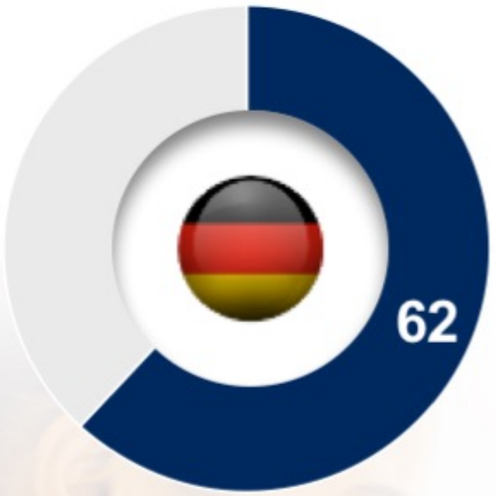
- **Invest in establishing centres of excellence and standardising care protocols in line with latest evidence,** as well as working with health systems to support most effective care
- **Developed a Rapid Recovery** model in joint replacement surgery (and other areas of care) which has led to over 75% of hip/knee replacement patients discharged on the day after surgery, or treated as day case patients
- **Perform highly** on outcomes, patient experience and length of stay

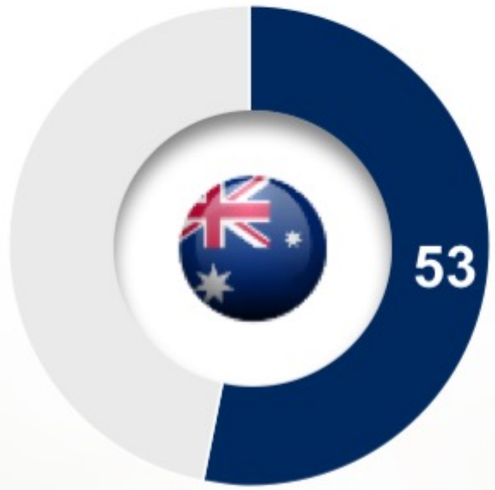
SOURCE: Capio website, McKinsey interviews with Capio staff

Workforce Innovation

% of healthcare spend on workforce







The work force shortage is reaching crisis proportions.

– *Senator*
Orrin Hatch

We're not producing enough primary care physicians.

– *President*
Barack Obama

SOURCE: MHLW (Japan); Centre for Health Professions at UCLA (US); Compendium of Health statistics (UK); Federal Statistical Office (Germany); Australian Institute of Health and Welfare, "Australia's Health 2008"; ABS "Australian Labour Costs 2002-3"

Workforce Innovation: Empower patients

Jonkoping

Approach

- Patients manage entire dialysis process
- Encourage exercise & peer-to-peer support
- Nursing staff role transformed

Impact

- 50-75% lower spend per patient
- 63% patients self-dialyse, target is 75%
- Convenience, greater sense of control, less harm for patients

Patients like me

- Online peer network for patients organised by disease group;
- Allows patients to track their progress (symptoms, treatments, progression) and compare this to others with similar conditions.

Self-reported improvements pre/post intervention:

- Better understanding of condition: (58%)
- Greater control over condition: (50%)
- Reduced side effects: (27%)
- Improved adherence: (27%)
- Improved QOL: (45%)

SOURCE: Epilepsy & Behaviour, 23, 2012, 16-23; http://www.patientslikeme.com/

Workforce Innovation: Find new sources of talent

Approach

- 300+ village high school girls selected each year make up 60% of Aravind's workforce, perform most of the routine clinical tasks which allows doctors focus on core diagnosis & surgery
- Trained within 6 weeks

Impact

- Higher quality, productivity and lower cost…and improved life prospects for the girls
- Capsule rupture and vitreous loss is 2% versus 4.4% in the NHS at a cost of USD 14 versus a cost of USD 1,600 per procedure

Generation

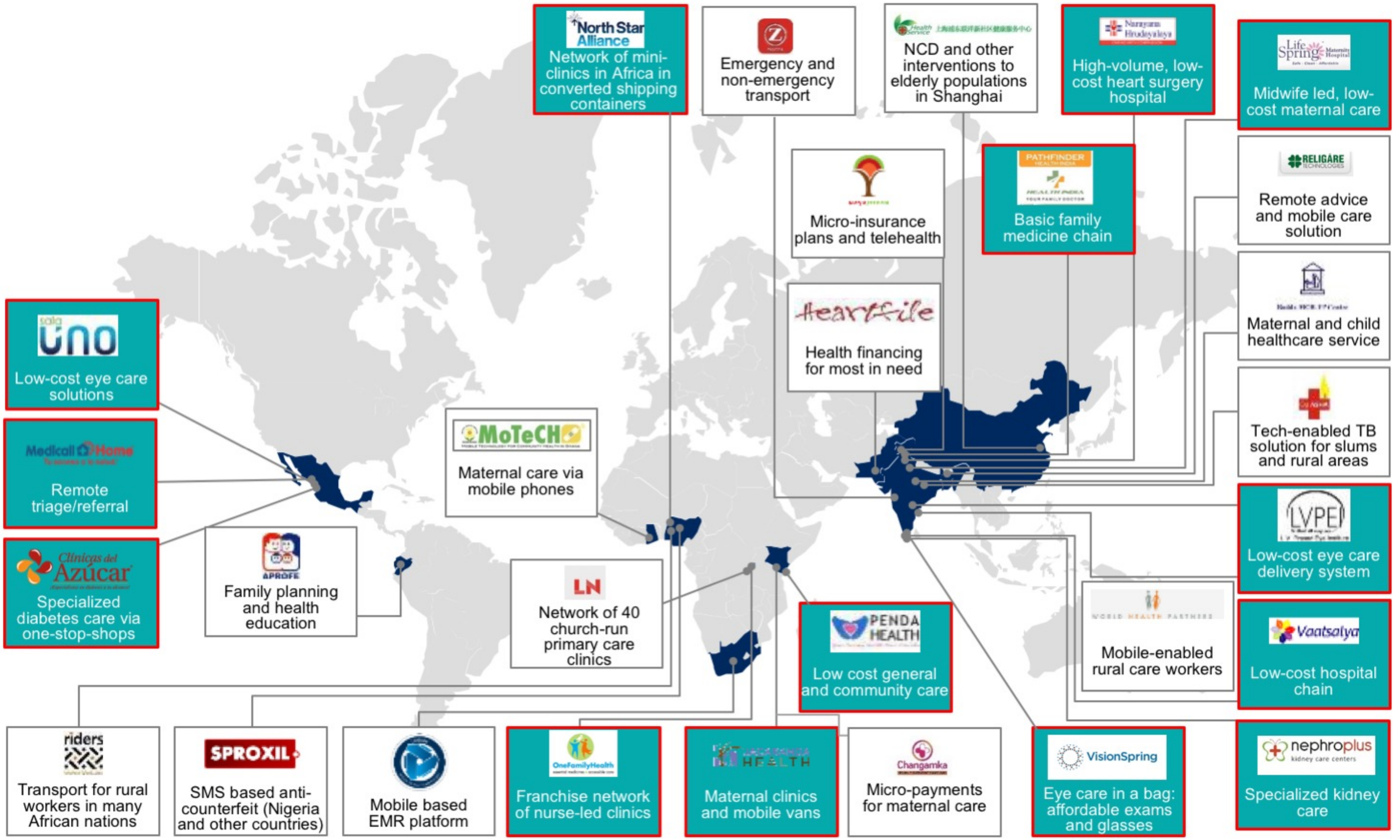
- Seeks to match unemployed or under-employed young people with workforce shortages
- Uses intensive 6-8 week intensive courses to train entry-level health-service professionals in Pittsburgh, e.g., certified nursing assistants and person-care technicians

- Cost of training and recruitment is one quarter traditional approach
- Over 90% of graduates from the programme are employed in healthcare
- Makes roles accessible to new groups

SOURCE: Interviews, https://www.generationinitiative.org/

Innovators in developing and emerging countries are delivering quality care at low cost

Step-change impact on cost



SOURCE: Innovations in Healthcare

The Challenge

Solutions

Barriers

The Future?

Why doesn’t change happen faster?

Patients

Professionals

Politics

Challenges

Solutions

Barriers

The Future?

Three reasons to be cheerful…

Technology

Crisis

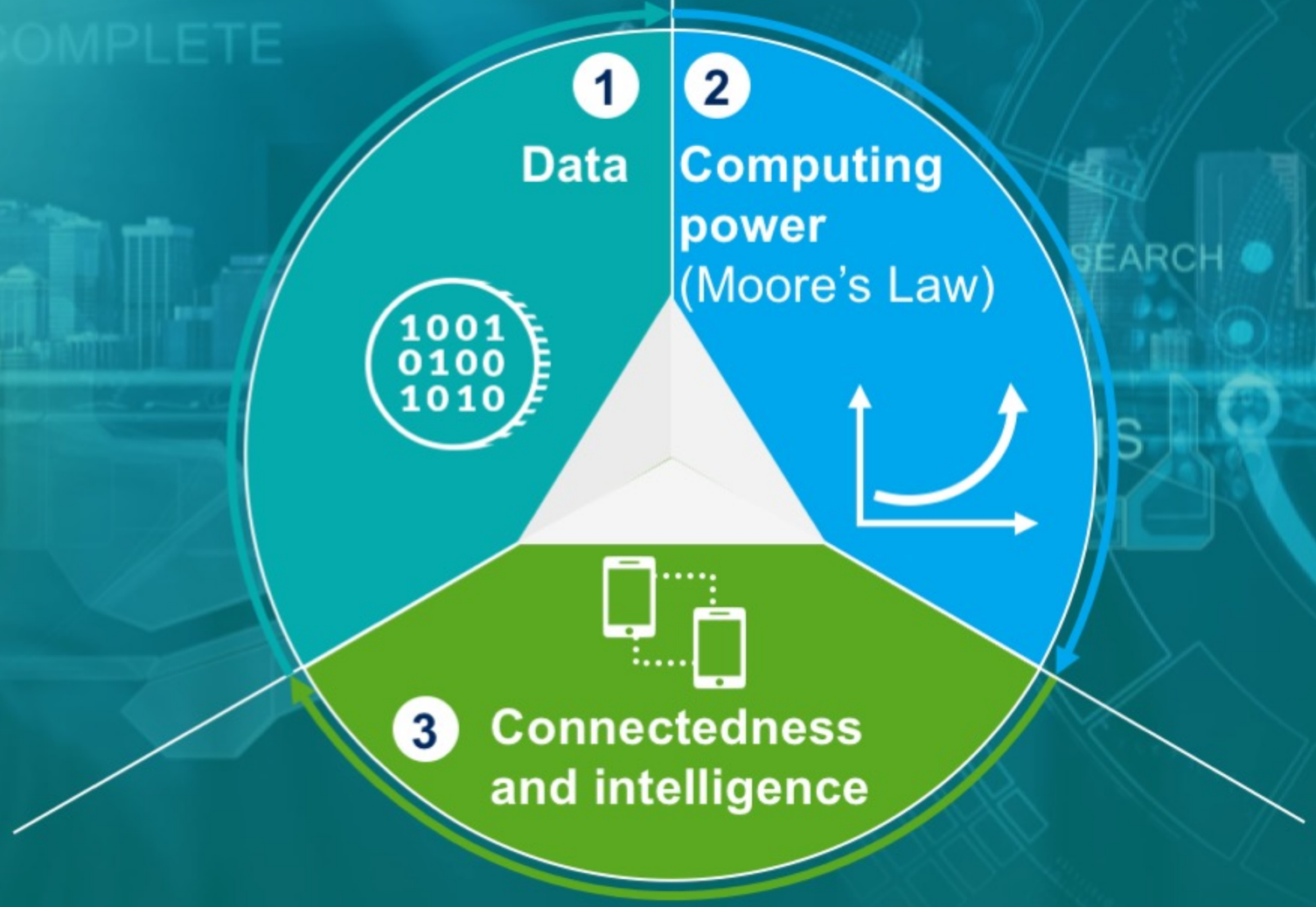
Transparency

The world has changed forever

Contributors

sensors shipped in manufacturing increased from 4.2B in 2012 to 23.6B in 2014

1,000 fold increase in computing power/mm² in last 10 years



Machine intelligence predicted to match that of humans by 2029

SOURCE: MGI; IDC, WEF

Digital Technology is already supporting improvements in healthcare

IMPROVEMENT OPPORTUNITIES

1

Automating manual tasks to improve quality and consistency of care and support clinical staff to be more efficient

2

Enabling **patients and carers to play a bigger role,** which has been shown to improve quality and reduce costs

3

Allowing **real time management of assets, flow and staff** to improve operational performance

4

Reducing variation: Enabling / supporting / endorsing delivery of best practice care and reduction in errors

5

Enhancing **connectivity** so clinicians and patients **no longer need to be co-located,** enabling better self-care and adherence

6

Sharing data to avoid duplication and improve decision making

EXAMPLES OF TECHNOLOGIES

ViSi MOBILE · sense.ly

PATIENTS KNOW BEST · cellscope · omada

TeleTracking · nervecentre

IBM · LIFEPATCH · ResApp HEALTH

Philips eICU · ClickMedix · hurley group

Epic · Cerner · Allscripts · Carenotes

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Thank You

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Presentation by John Leach | 13th October 2016

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One County's Journey

Initial **digitalization and aggregation** of health data in the **1980s and 1990s**

1. **Digitalization** of personal medical information starts at the end of the 1970s
2. Development of the **General Practice Research Database (GPRD)** of anonymous data from patient files volunteered by GP surgeries

Focus in the **2000s** on **making data available for patient direction**

3. **Freedom of Information Act** in 2000 giving free access to administrative documents
4. **NHS Choices** website, comparing GP surgeries and hospitals (indicators and patient comments)
5. **NHS Information Centre** giving access to health information
6. Audits of health providers by the **Care Quality Commission**

New thrust since 2010, mainly through the new NHS information strategy

7. New information put on-line: e.g., figures for complaints received by each hospital
8. Data reorganization: new **health section at data.gov.uk** and creation of the **Health and Social Care Information Centre** portal to improve access
9. Launch of a **new patient database** (care.data) covering 90% of all patients in the country
10. **Publishing clinician level data – national clinical audits across 10 specialties (by physician)**
11. **Friends and Family Test** – asks patients whether they would recommend the hospital services they used to friends and family – extension to out of hospital services
12. **Publishing more overarching clinical indicator -** For ten new clinical areas including cancer, children's services, mental health and stroke, data will be made available to tell the public how well services are performing and meeting their needs
13. **Carter Report highlights unwarranted variation within the profession** and brings debate into mainstream
14. **MyNHS – ensuring transparency**. 2015-2017 planning, Report
15. Launch of **MyNHS –** compare services in your area

SOURCE: Bras Report (2013); Bégaud and Costagliola Report (2013); e-newsletter; institution websites; discussions with experts

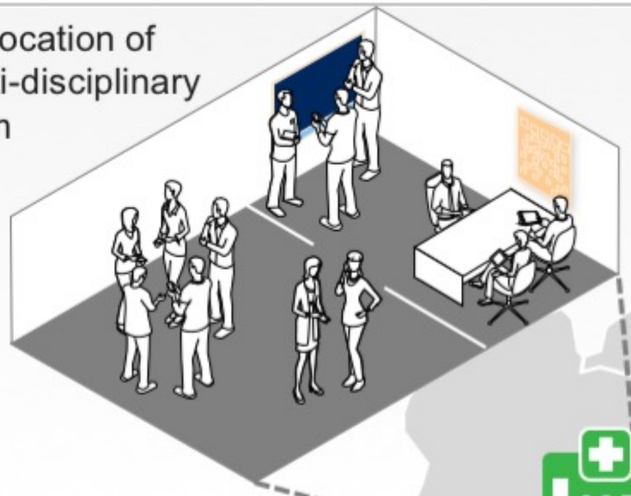
Types of care models as per Keogh and emerging hospital models

	What	Services offered	Examples of hospitals
Major trauma	• Specialised centres co-locating tertiary/complex services on a 24x7 basis • Serving population of at least 2 -3million	• Neurosurgery, Cardiothoracic surgery • Full range of emergency surgery and acute medicine • Full range of support services, ITU etc	• Royal London • Kings College • Addenbrookes • John Radcliffe
Major Emergency Centre (a)	• Larger units, capable of assessing and initiating treatment for all patients and providing a range of specialist hyper-acute services • Serving population of ~ 1-1.5m	• Hyperacute cardiac, stroke , vascular services • Trauma centre • Level 3 ICU • Moving towards 24x7 consultant delivered A&E, emergency surgery, acute medicine, inpatient paeds • Full obstetrics and level 3 NICU	• Nottingham • Leicester
Major emergency centre (b)	• Larger units, capable of assessing and initiating treatment for the overwhelming majority of patients but without all hyper-acute services • Serving population of ~ 500-700K	• Moving towards 24x7 consultant delivered A&E, emergency surgery, acute medicine • Level 3 ICU • Inpatient Paeds • Obstetrics with level 2 NICU	• Chesterfield • West Middlesex
Emergency Centre	• Assessing and initiating treatment for majority of patients • Acute medical inpatient care with intensive care/HDU back up • Serving population of ~ 250-300K	• Consultant led A&E • Acute medicine and HDU • Access to surgical opinion via network • Possibly paeds assessment unit and possibly obstetrics	• Haywards Heath
Integrated care hub with emergency care	• Assessing and initiating treatment for large proportion of patients • Integrated outpatient, primary, community and social care hub • Serving population of ~ 100-250K	• GP and A&E consultant led urgent care incorporating out of hours GP services • Step up/step down beds possibly with 48 hour assessment unit • Outpatients and diagnostics	• Louth • Rochdale
Urgent care centre	• Immediate urgent care • Integrated outpatient, primary, community and social care hub • Serving population of ~ 50-100K	• As above but no beds	• Tiverton

What could the future look like for a region with 3 million population?

Fewer building but more service points

Co-location of multi-disciplinary team



Link to acute specialists for advice

Polyclinic

HDVC

Specialist appointment

Basic diagnosis

GPS

Community and social care

Integrated health record

Major acute hospital with 24/7 ED & critical care

Community hospital with 12/7 ED or UCC

Elective centre for high volume low complexity procedure with inpatient

Pediatrics specialist hospital covering 5m population

Polyclinic

GP practice

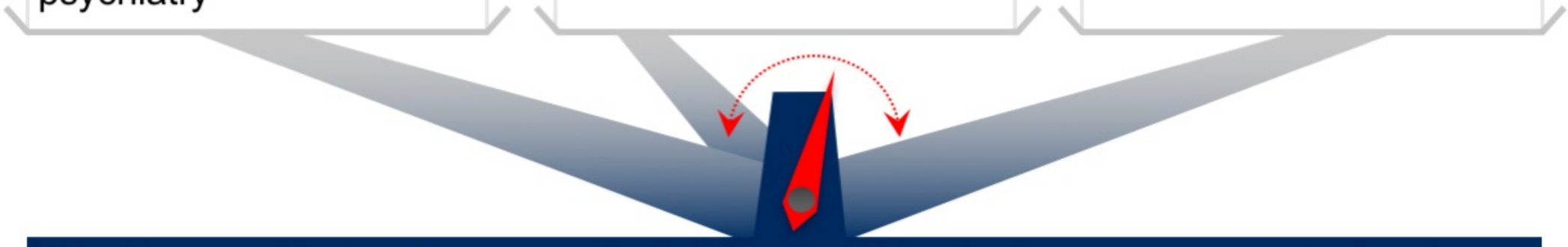
Ambulance

Air ambulance

SOURCE: McKinsey Healthcare Conference, Stockholm

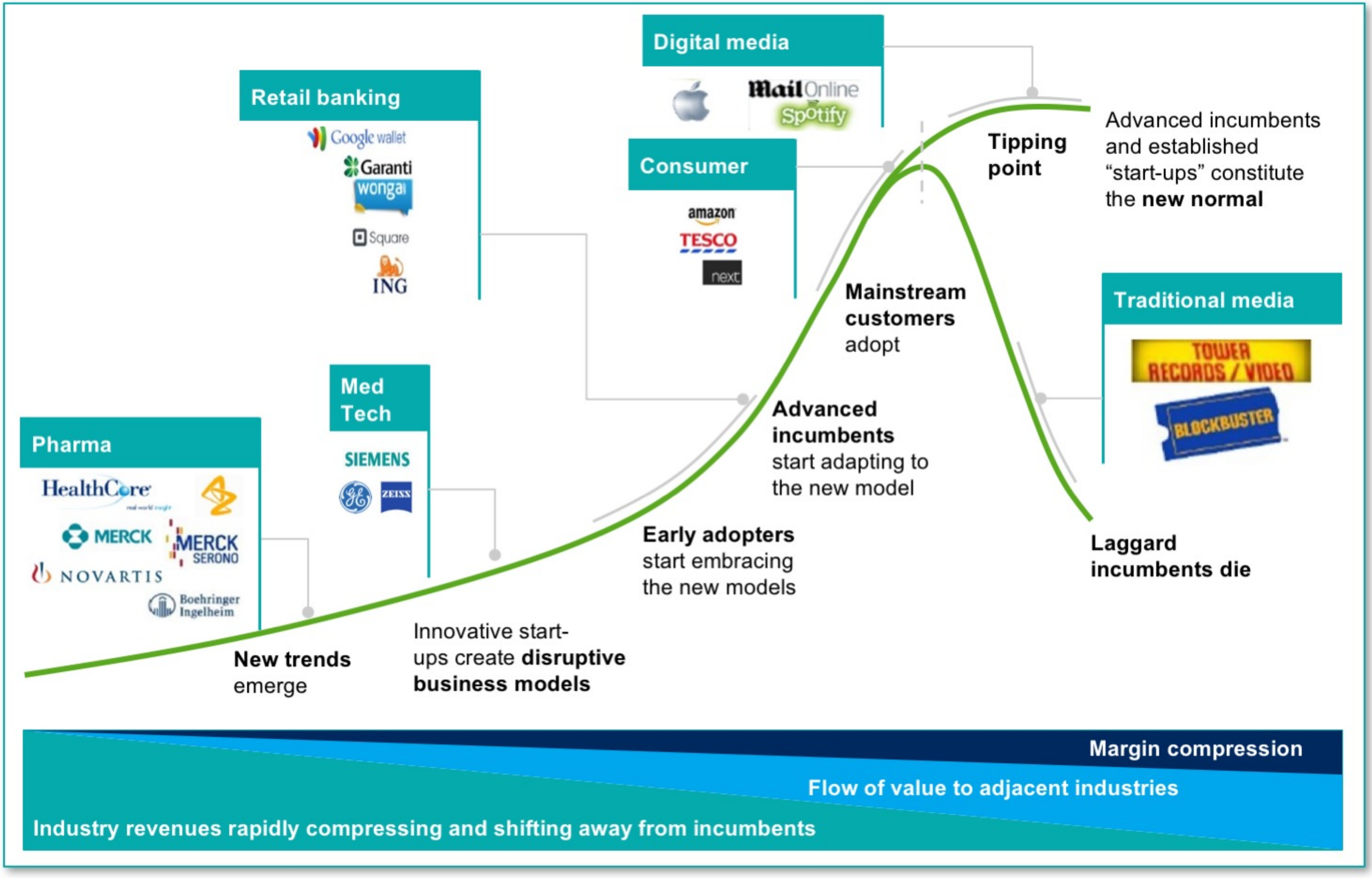
Workforce Innovation: Task shift to allow different health professionals lead different aspects of care

	Advanced practitioner-led	Allied health professional-led	Physician-led
Primary care	Advanced nurse practitioner	Pharmacist	Family medicine physician
Maternity care	Nurse specializing in ob/gyn	Midwife	Ob/gyn physician
Pre-hospital care	Paramedic	Emergency medicine technician	Emergency medicine physician
Mental health care	Nurse specializing in psychiatry	Psychologist	Psychiatrist



Weighing up which healthcare professionals and no professionals are most suited to deliver health services in different care settings will determine creation of new professions and scopes of practice

Early days



SOURCE: McKinsey analysis