



Big systems transformation in the context of complexity: from British Columbia to the world and back

February 27, 2019

British Columbia Quality Forum, Canada

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President Elect
International Society for Quality in Health
Care (ISQua)



Disclosure

I have no affiliations with any commercial organizations



THE INTERNATIONAL SOCIETY FOR QUALITY IN HEALTH CARE

ISQua's Mission Statement:

“To inspire and drive improvement in the quality and safety of health care worldwide through education and knowledge sharing, external evaluation, supporting health systems and connecting people through global networks.”

Our vision is to be the global leader of transformation in healthcare quality and safety.

ISQua's Fellowship Programme

Content for the ISQua Fellowship Programme is presented under eight topical tracks. Each track provides a number of modules and health care improvement e-learning courses.



**Governance,
Leadership &
Health Policy**



Patient Safety



**Patient
Centred Care**



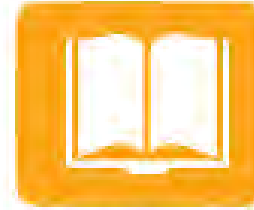
**Health
Information
Technology**



**External
Evaluation
Systems**



**Quality &
Safety in
Developing
Countries**



**Education and
Research**



**Science of
Improvement**



500+

Participants



5

Continents



60

Countries



4

Languages



3

Programmes

ISQua SPECIALIST CERTIFICATES

Enhancing Health Care Quality and Safety Education in Specific Areas



Clinical Applications in Person-
Centred Care

Principles of Person-Centred Care

Fundamentals of External Evaluation
Surveying

ISQua's 36th International Conference

CAPE TOWN 2019

20th – 23rd OCTOBER

CAPE TOWN
INTERNATIONAL
CONVENTION
CENTRE



Innovate, Implement, Improve
"Beating the Drum for Safety, Quality and Equity"



#ISQua2019

Why Get Involved?

Scientific Programme



Delegates Around the World

Job Titles

- Chief Executive
- Medical Director
- Risk Manager
- Vice President
- Consultant
- Chief Financial Officer
- Patient Care Director
- Researcher
- Quality Management
- Allied Health Professional
- Nurse Practitioner
- Doctor/ Physician

Senior Healthcare
Professionals **30%**

Clinical and Para
Medical **56%**

Others (Policy
Makers and Patients) **3%**

Academics **11%**



IEEEA ACCREDITATION
ISQua's External
Evaluation Association
(IEEEA)



Our Programmes



ORGANISATION

[LEARN MORE](#)



STANDARDS

[LEARN MORE](#)

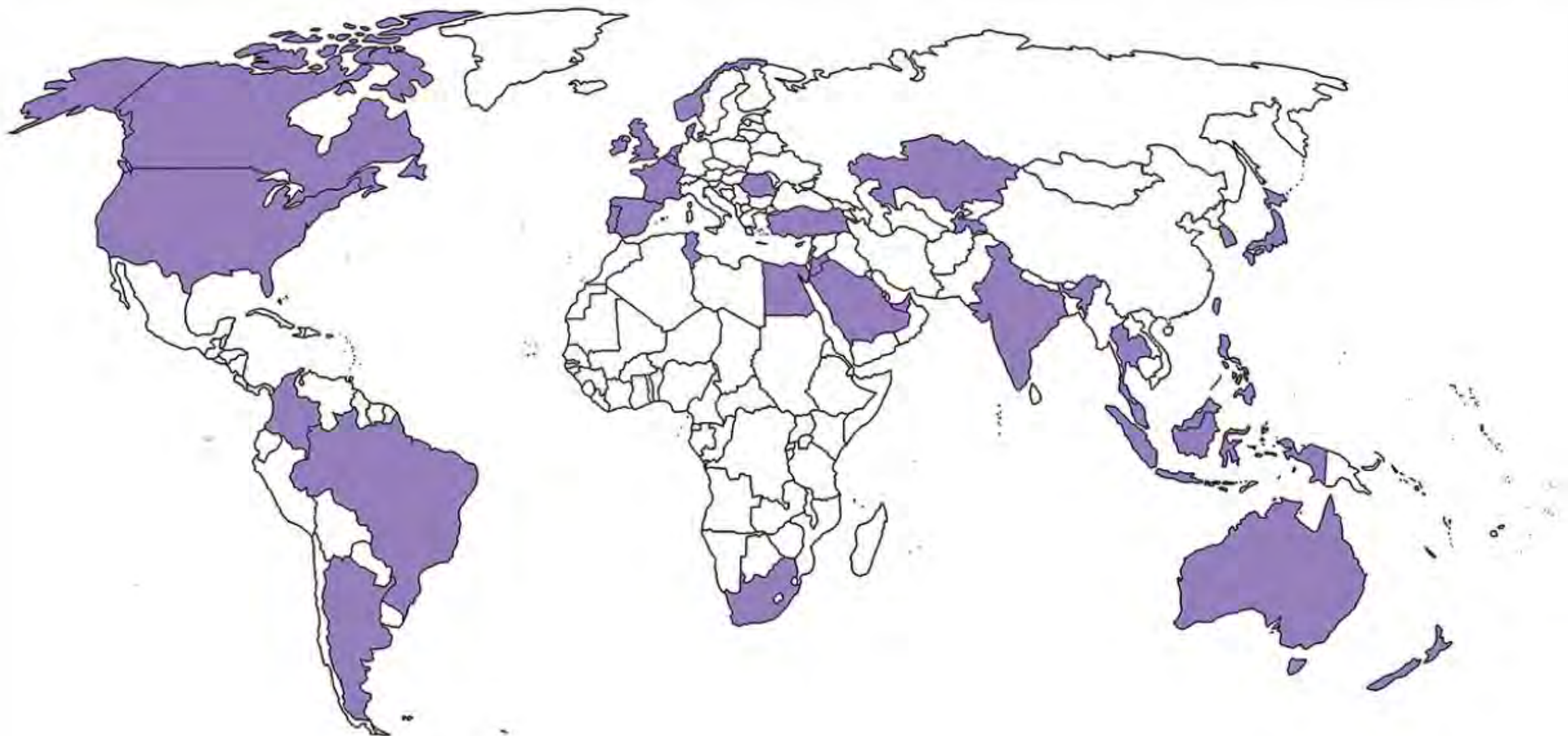


**SURVEYOR TRAINING
PROGRAMME**

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Current Awards

ISQua Accreditation is granted for four years. Accredited organisations receive the final survey report, an ISQua Accreditation Certificate and the use of an 'ISQua Accredited' logo. All IAP awards are acknowledged annually at ISQua's International Conference.





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Australian Institute of Health Innovation



Our mission is to enhance local, institutional and international health system decision-making through evidence; and use systems sciences and translational approaches to provide innovative, evidence-based solutions to specified health care delivery problems.



Australian Institute of Health Innovation

PIONEERING | STRATEGIC | IMPACT





- **Professor Jeffrey Braithwaite**

Founding Director, AIHI; Director, Centre for Healthcare Resilience and Implementation Science

- **Professor Enrico Coiera**

Director, Centre for Health Informatics

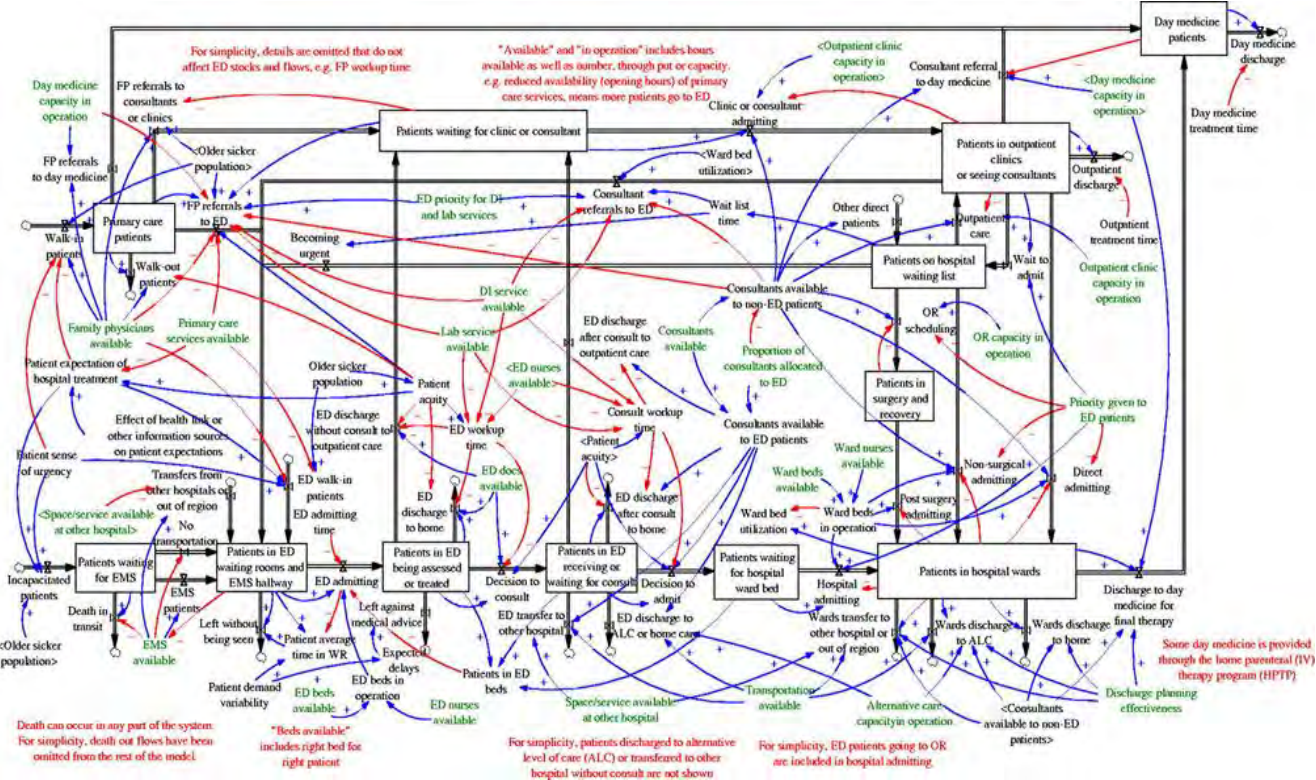
- **Professor Johanna Westbrook**

Director, Centre for Health Systems and Safety Research



Part 1: Thinking about healthcare improvement

What will you do to change this and improve the system?



When do health systems change? When:



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- Stimulated by medical progress (e.g. new tests)
- Incontrovertible evidence shows public benefit (e.g. immunising infants)
- New models of care emerge (e.g. shift to day only surgery)
- Clinical practices alter because of professional acceptance (e.g. laparoscopic techniques)

[Braithwaite, J. 2018. Changing how we think about healthcare improvement. *BMJ* 361:k2014.]

When can systems reject change?



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- The primary or sole strategy is top down
- The change is not supported by parties with power to resist or reject
- The initiative encounters entrenched bureaucracy
- More policies and procedures are issued on top of a multiplicity of existing policies and procedures
- Attempts to alter deep seated politics or cultures are superficial

[Braithwaite, J. 2018. Changing how we think about healthcare improvement. *BMJ* 361:k2014.]



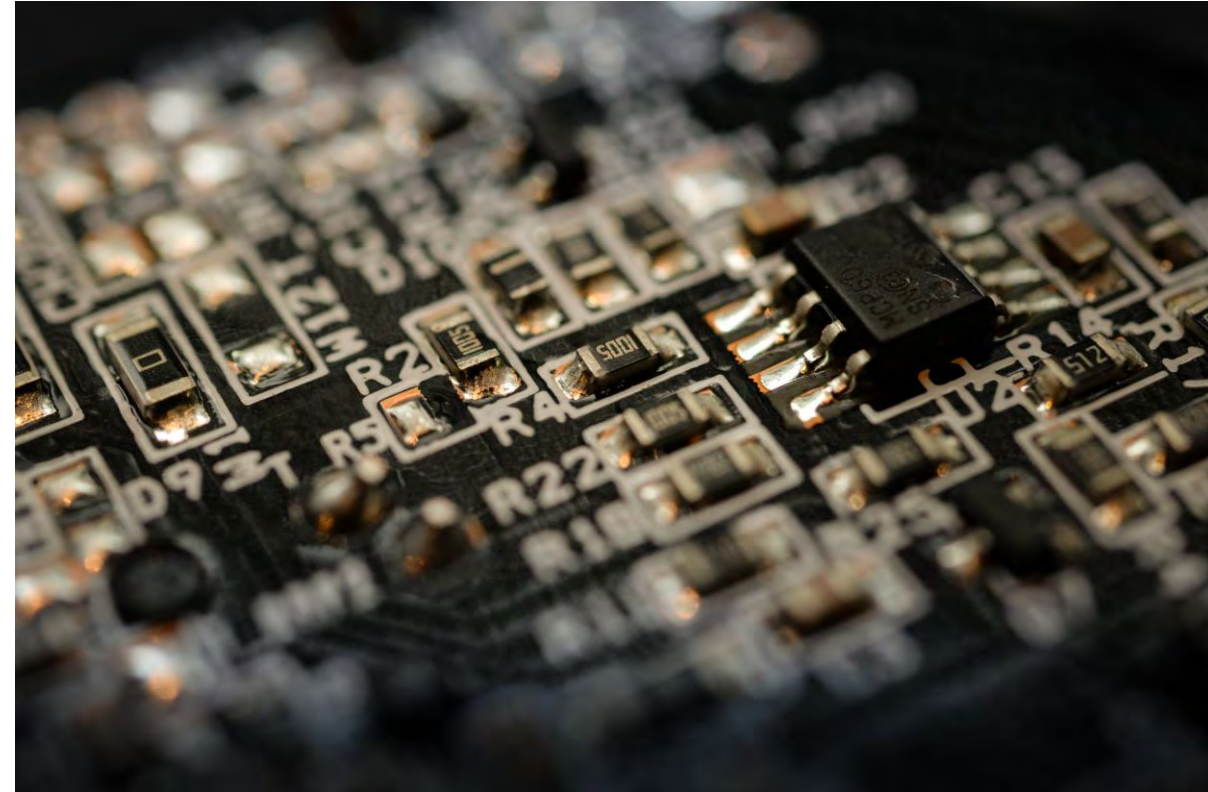
**To change a system, we
need to look at the
hardware and the
software ...**

How do we change a system's hardware?



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1. Restructuring organisations
2. Capital investments
3. Financial models and targets



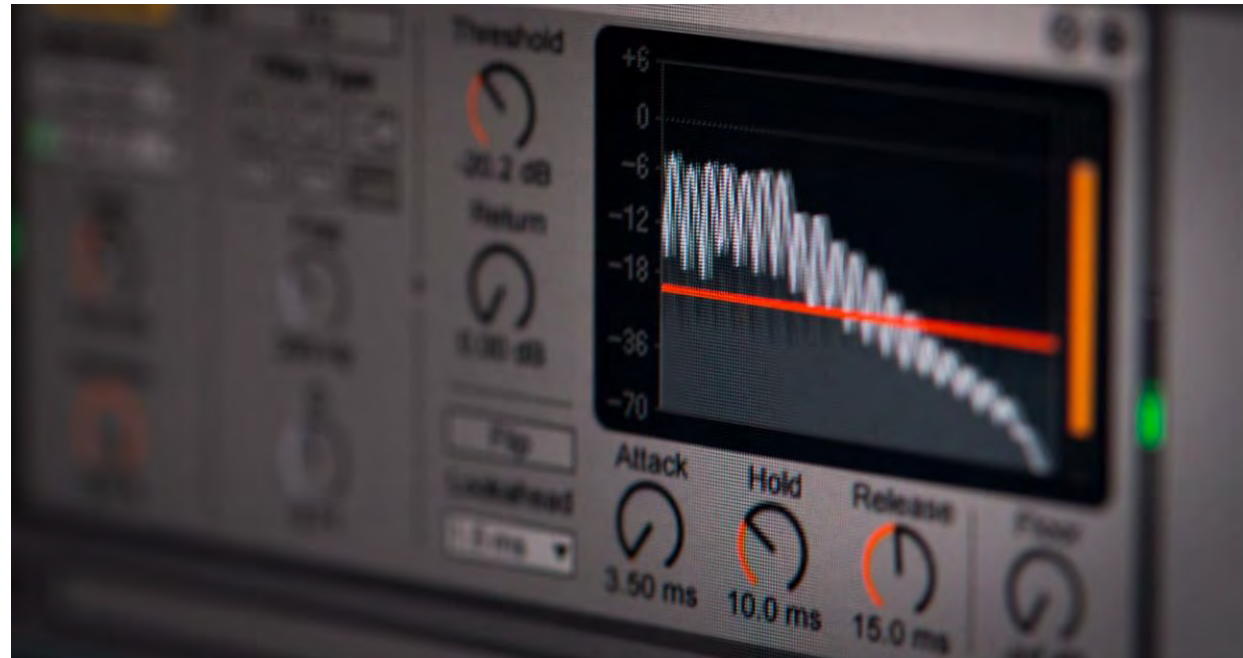
[Braithwaite, J. 2018. Changing how we think about healthcare improvement. *BMJ* 361:k2014.]

How do we change a system's software?



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1. Enhancing organisational and workplace cultures
2. Implementation science and improvement over time



[Braithwaite, J. 2018.
Changing how we think
about healthcare
improvement. *BMJ*
361:k2014.]



Part 2: Complexity Science

The Cynefin Framework



Simple



Complicated



Complex

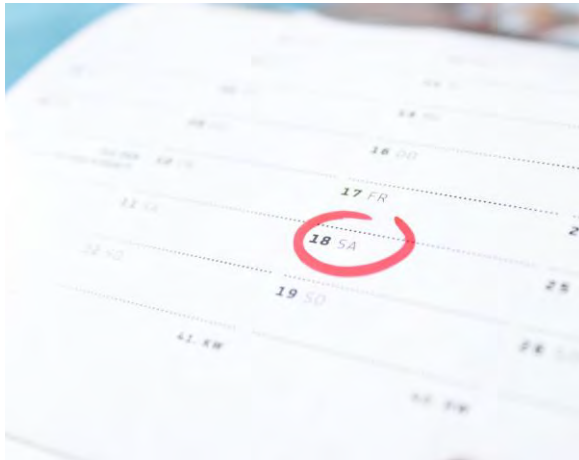


Chaotic

Examples in healthcare



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Simple



Complicated



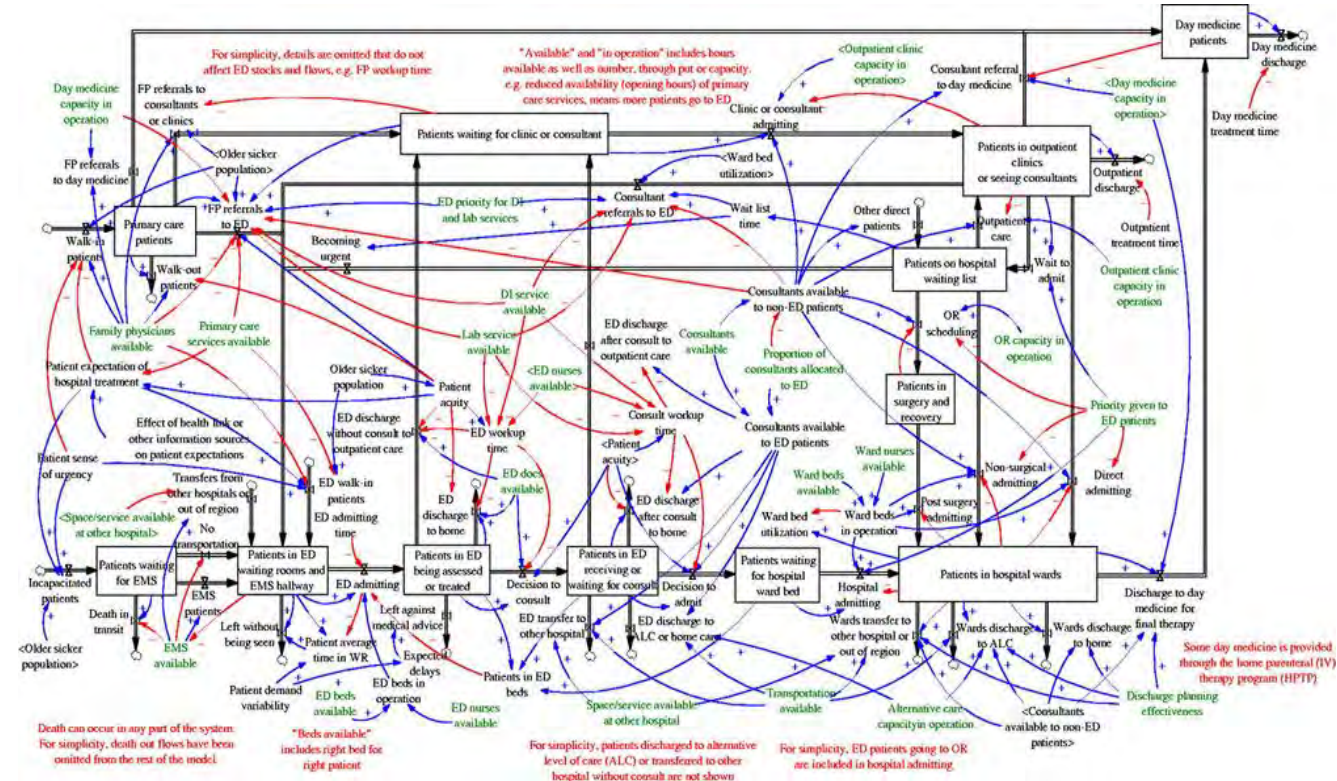
Complex



Chaotic



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Complexity Science in Health Care: *A WHITE PAPER*



Properties of complexity



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1. Agents
2. Interacting
3. Self-organised
4. Collective
5. Networks
6. Rules
7. Emergence
8. Uncertainty
9. Adaptive
10. Dynamical
11. Bottom up
12. Transitional
13. Feedback
14. Path dependence

An example: Obesity



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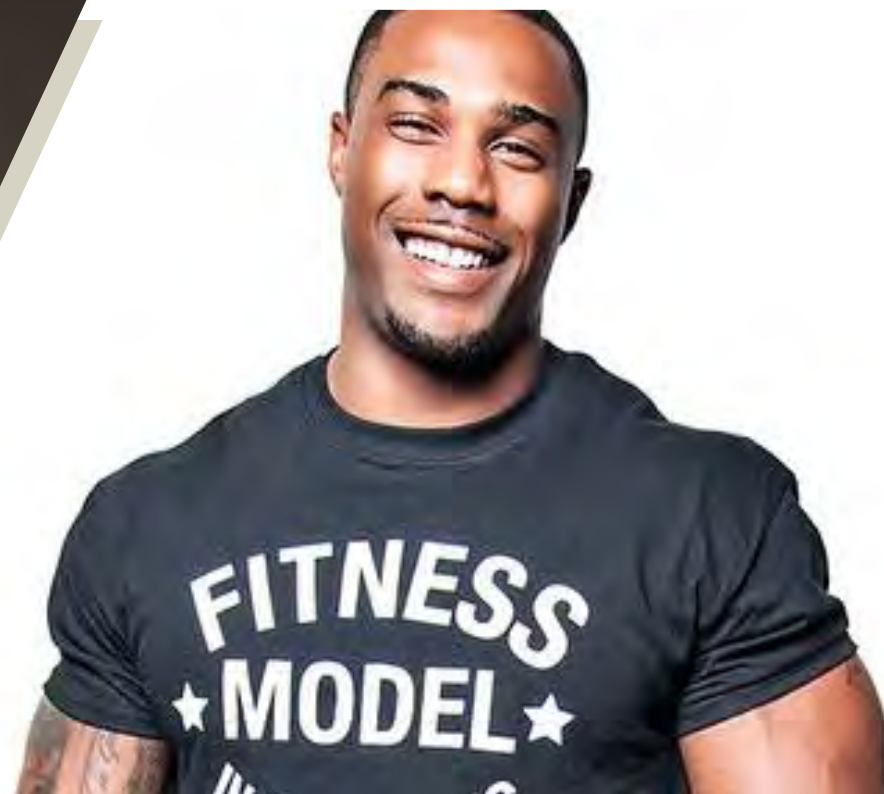
**Obesity - that's a linear
problem, right?**

An example: Obesity



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**Fewer calories, more
exercise =**



An example: Obesity



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Unfortunately not =

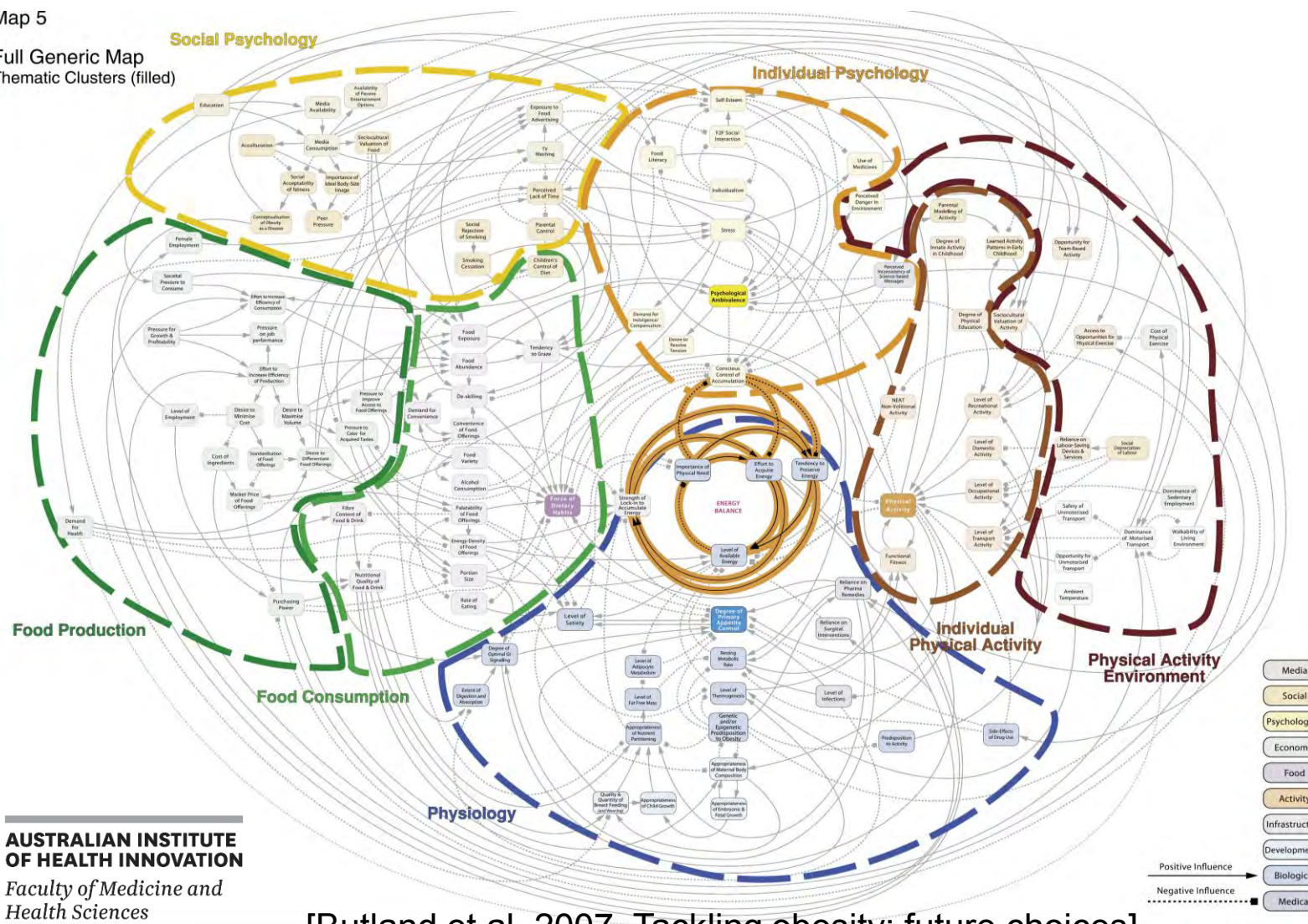
Complexity and obesity: A system map



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Map 5

Full Generic Map
Thematic Clusters (filled)



This map highlights the enormous range of different and interconnected individuals, social and economic systems that influence obesity

Another example: BC



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What about your Province?

Canada has 15 different health care systems

Provinces and territories of Canada

Plus
Aboriginal
Healthcare
Veteran health

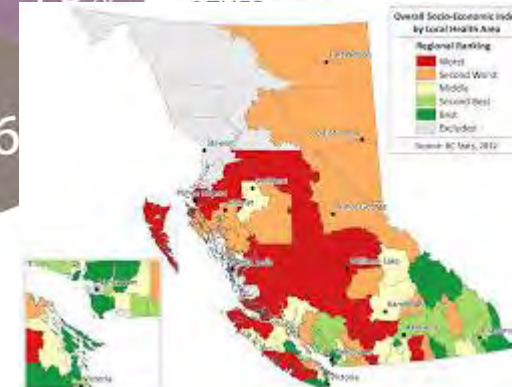
UPDATE

MAGAZINE



- Acute care
- Primary care
- Public health
- Home support and home care
- Community care
- Residential care
- End of life care
- Informal care

SPH EMERGENCY DEPARTMENT (ED) VISITS BY RESIDENCE
(FISCAL 2015/16)



Remedies for linear thinking



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1. Resist the temptation to focus myopically on a problem, *per se*; instead, look for *interconnections*
2. Consider that *you can't actually see very far ahead*. Things happen in response to active change when you least expect it.

Remedies for linear thinking



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3. Look for *patterns in the system's behaviours*, not just at events

4. Be *careful if attributing cause and effect*. It's rarely that simple

Remedies for linear thinking



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5. Generate *new ideas beyond your own resources* when tackling problems; ask someone, perhaps multiple people with a different perspective

6. Keep in mind the system doesn't necessarily respond to intended change as predicted; *systems never change in a 1:1 relationship between what's intended and what actually eventuates*

Remedies for linear thinking



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7. If you have sufficient resources, *model the system properties* surrounding the problem you are trying to address

8. *Use systems tools* at your disposal: e.g., sociograms, social network analyses, systems diagrams, simulation

Command and control only gets you ... not very far



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- KPI
- Res
- Polic
- pre
- ptio

- Clinician empowerment
- Patient involvement
- Bottom-up input

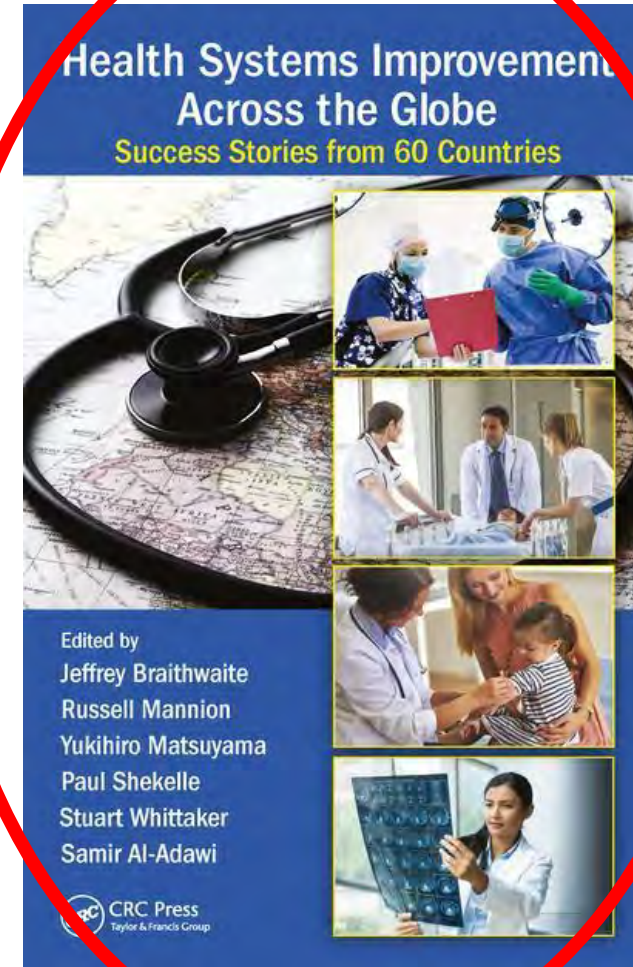
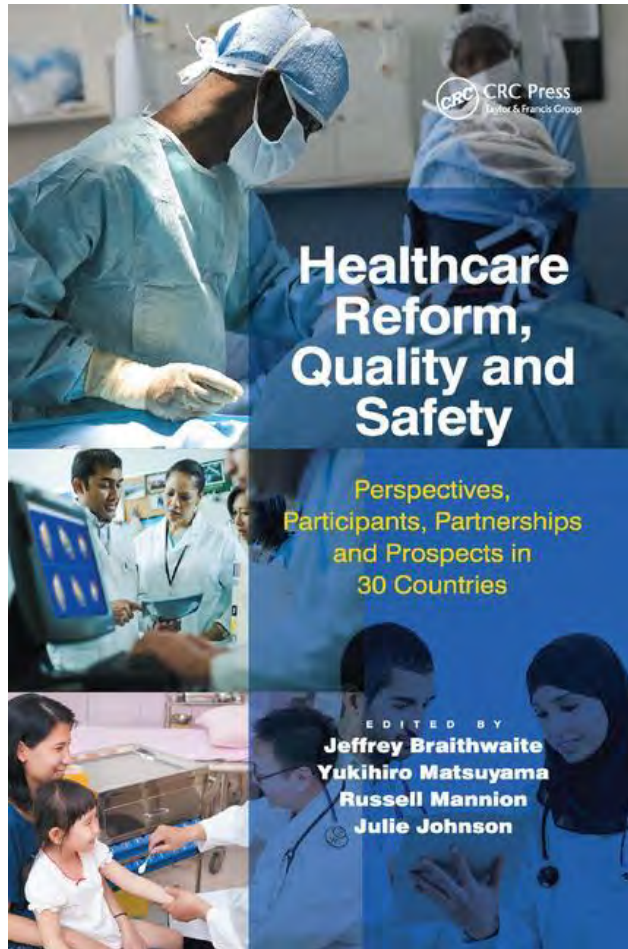


Part 3: Case studies of success from around the world

A series on international health reform



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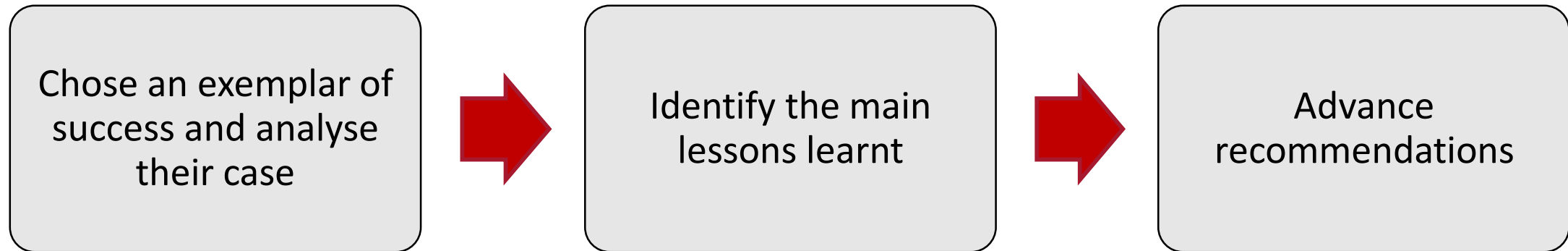


**AUSTRALIAN INSTITUTE
OF HEALTH INNOVATION**

*Faculty of Medicine and
Health Sciences*

Contributors

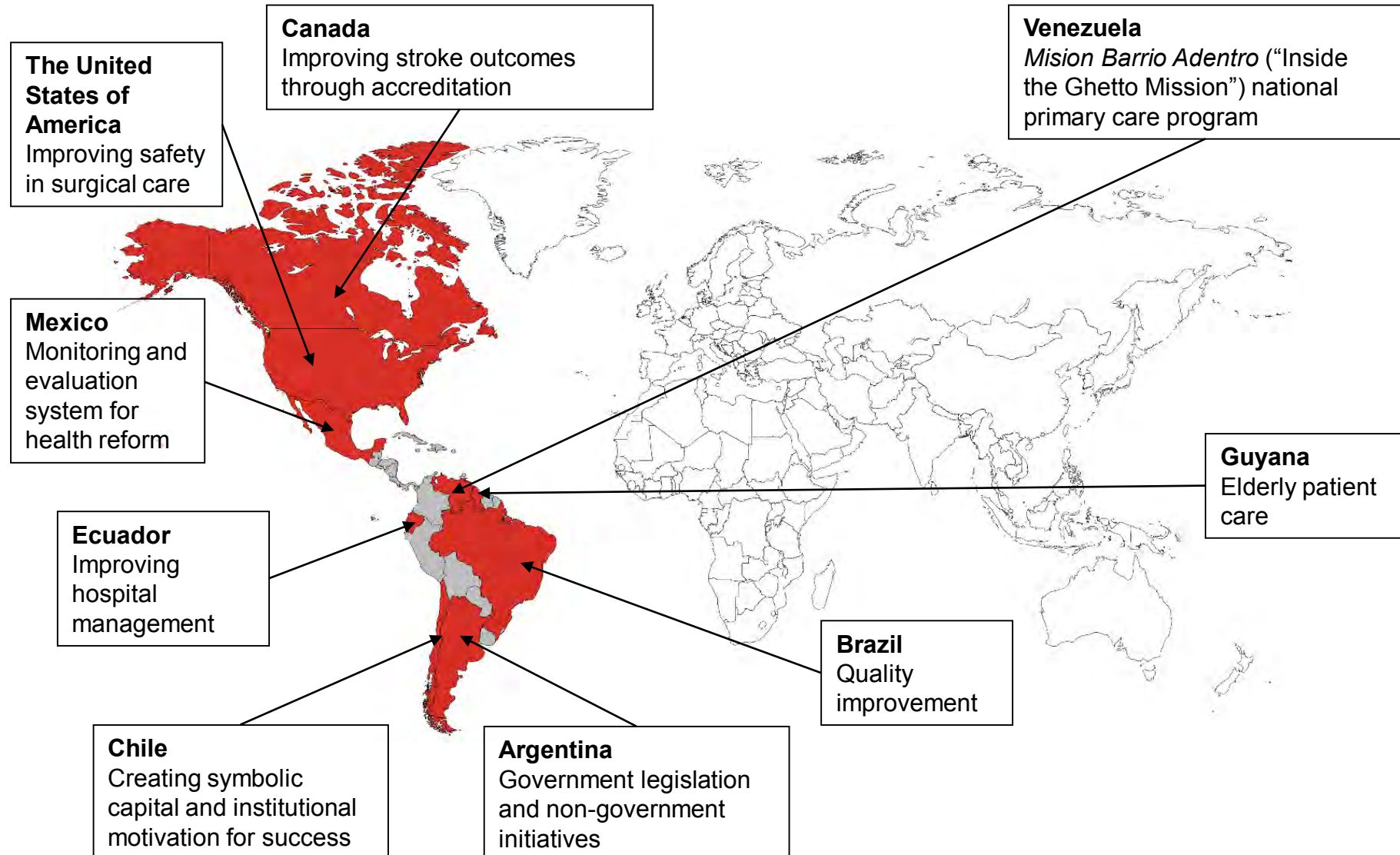
- 161 contributing authors from over 60 countries
- Five low-income, 22 middle-income, 35 high-income healthcare systems, covering two-thirds of the world's 7.4 billion people
- The authors' tasks were to:



The Americas



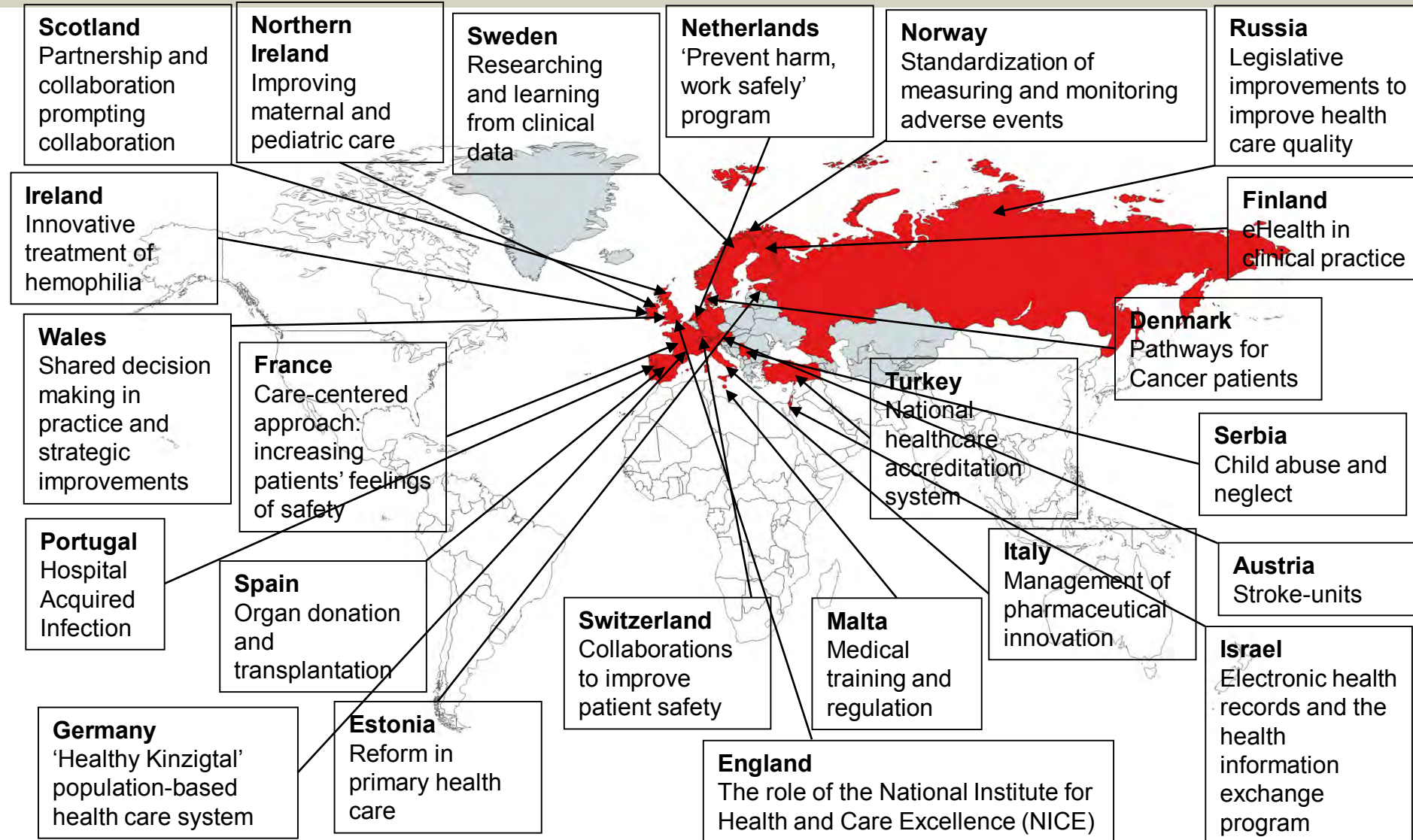
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Europe



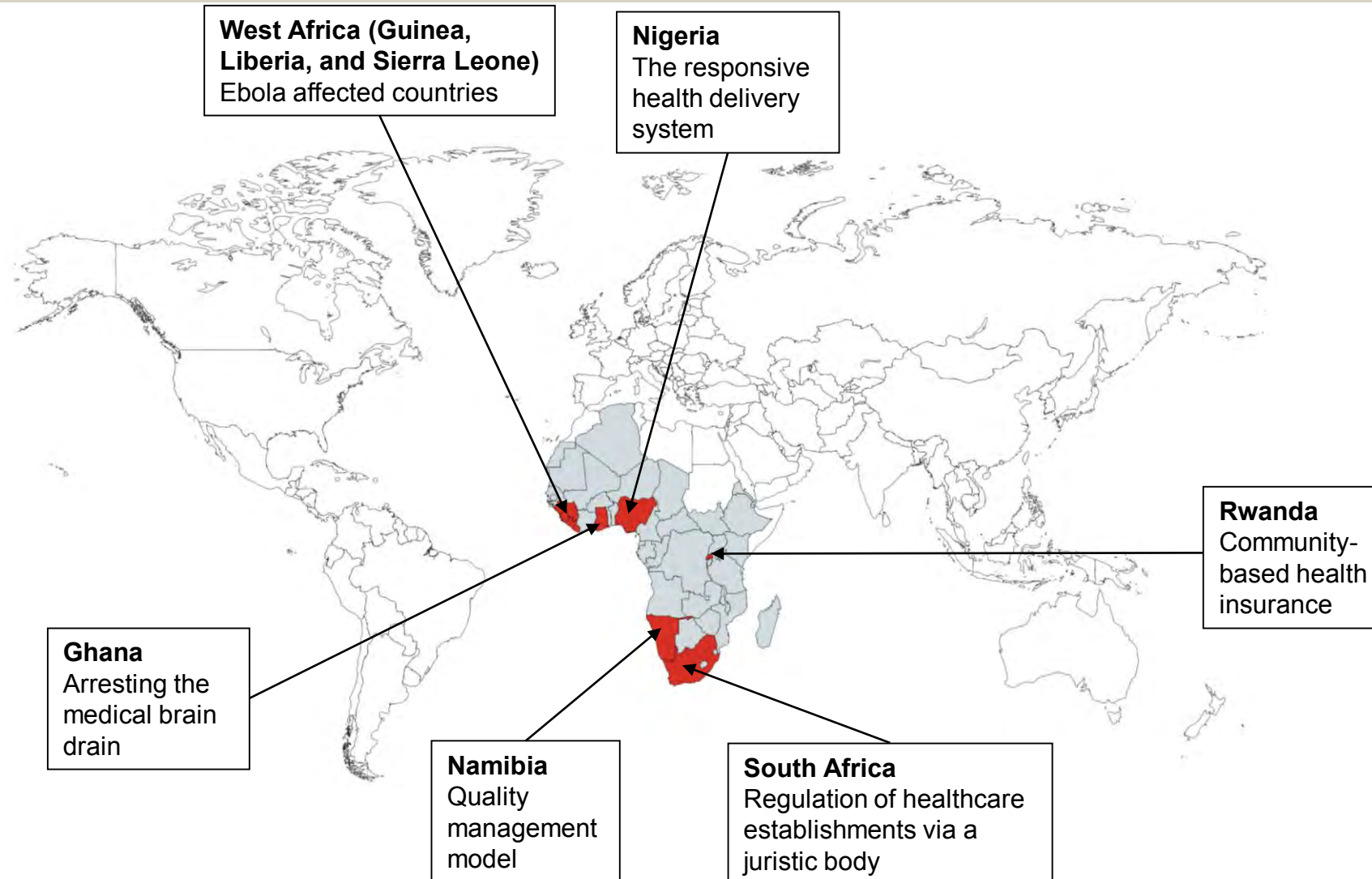
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Africa



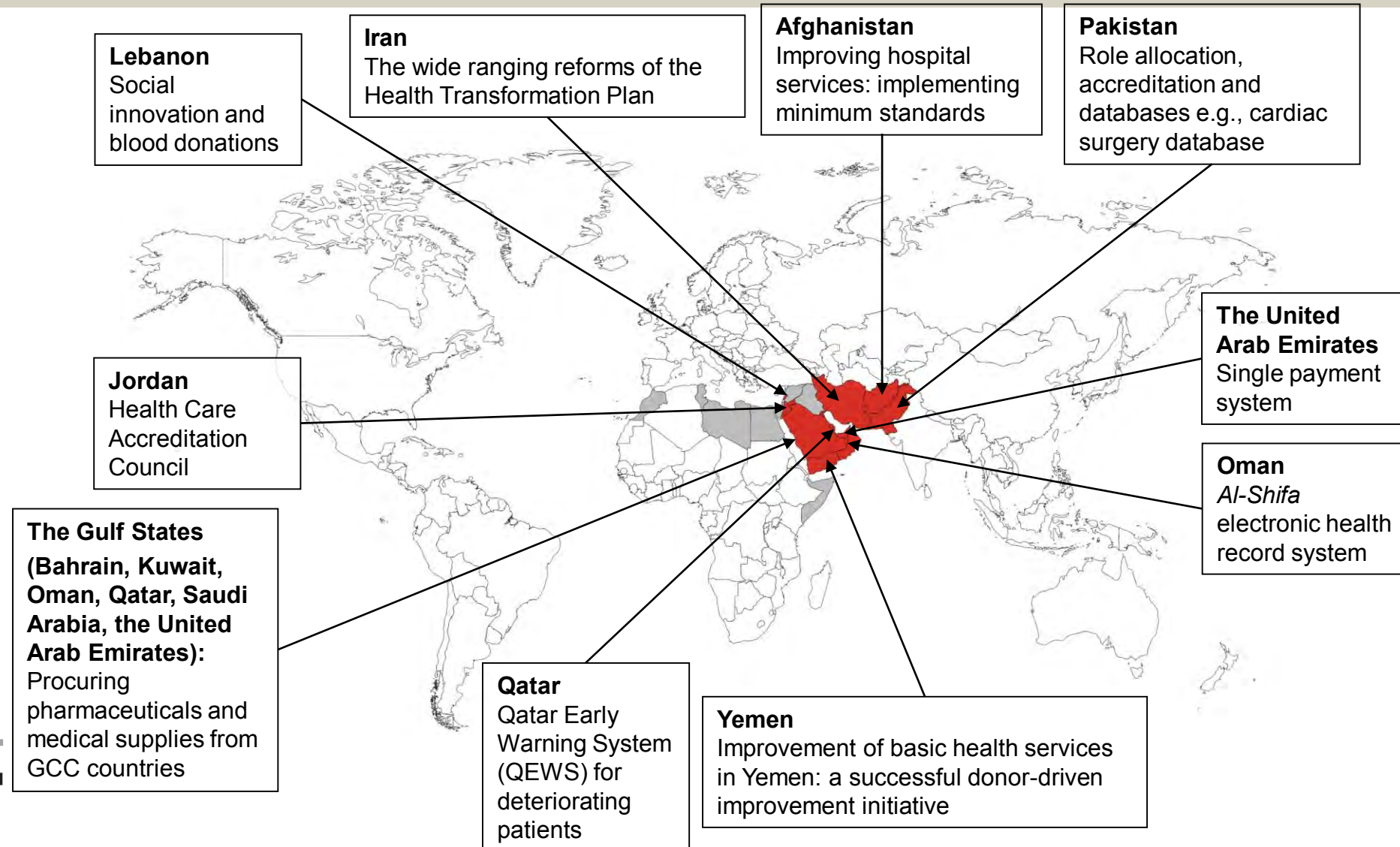
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Eastern Mediterranean



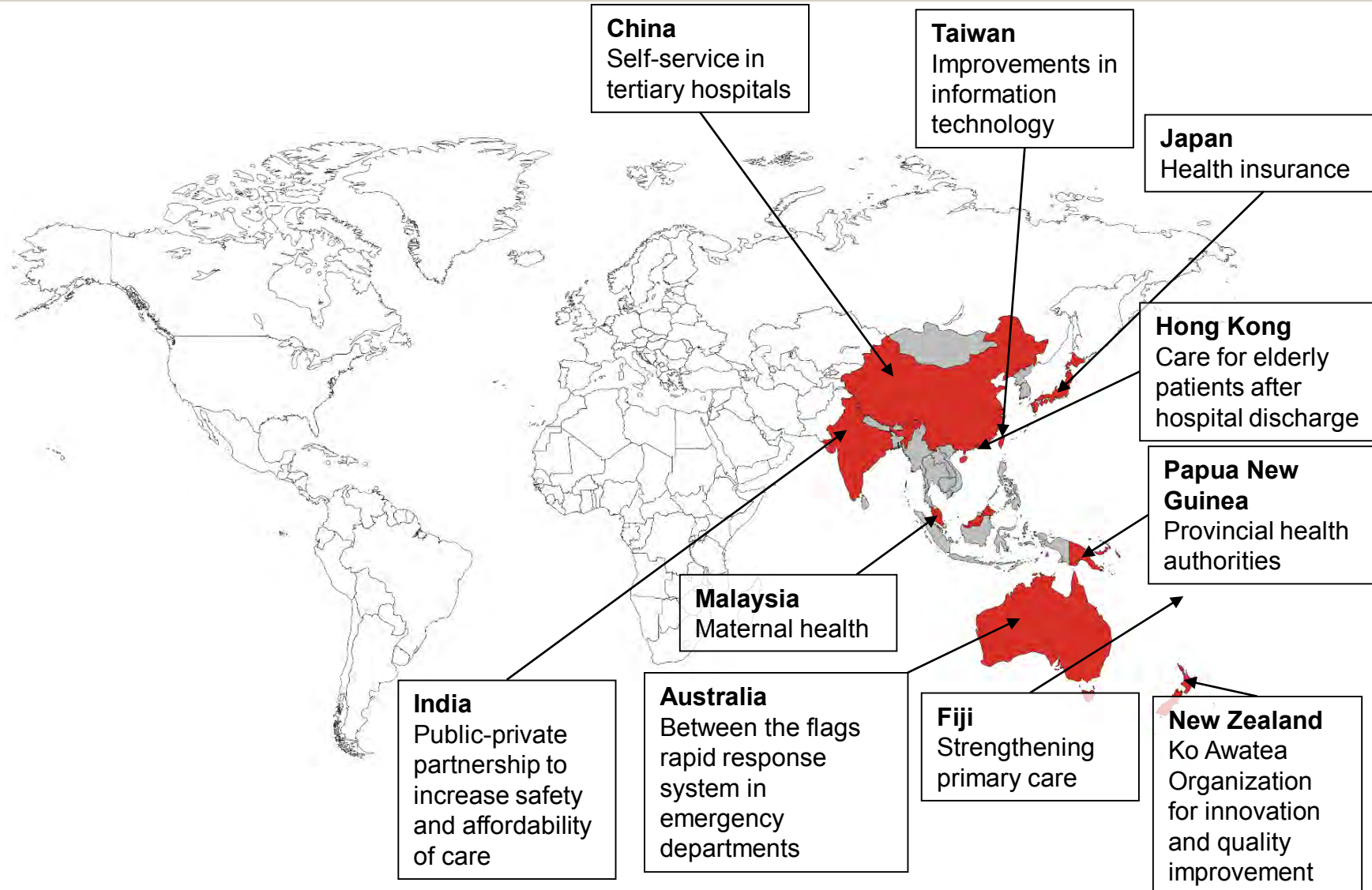
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South-East Asia and the Western Pacific



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International Recipe for Success: Nine Themes

Nine themes



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- 1.Improving policy, coverage and governance
- 2.Enhancing the quality of care
- 3.Keeping patients safe
- 4.Regulating standards and accreditation
- 5.Organising care at the macro-level

Nine themes



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- 6. Organising care at the meso- and micro-level
- 7. Developing workforces and resources
- 8. Harnessing technology and IT
- 9. Making collaboratives and partnerships work

1. Improving policy, coverage and governance



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- Policy reform to improve quality, equity and accessibility of care
- 10 countries
- 15.4% of the cohort

Mexico
Monitoring and
evaluation
system for health
reform

Serbia
National policy
initiative to respond
to child abuse and
neglect

Rwanda
Community-based
health insurance

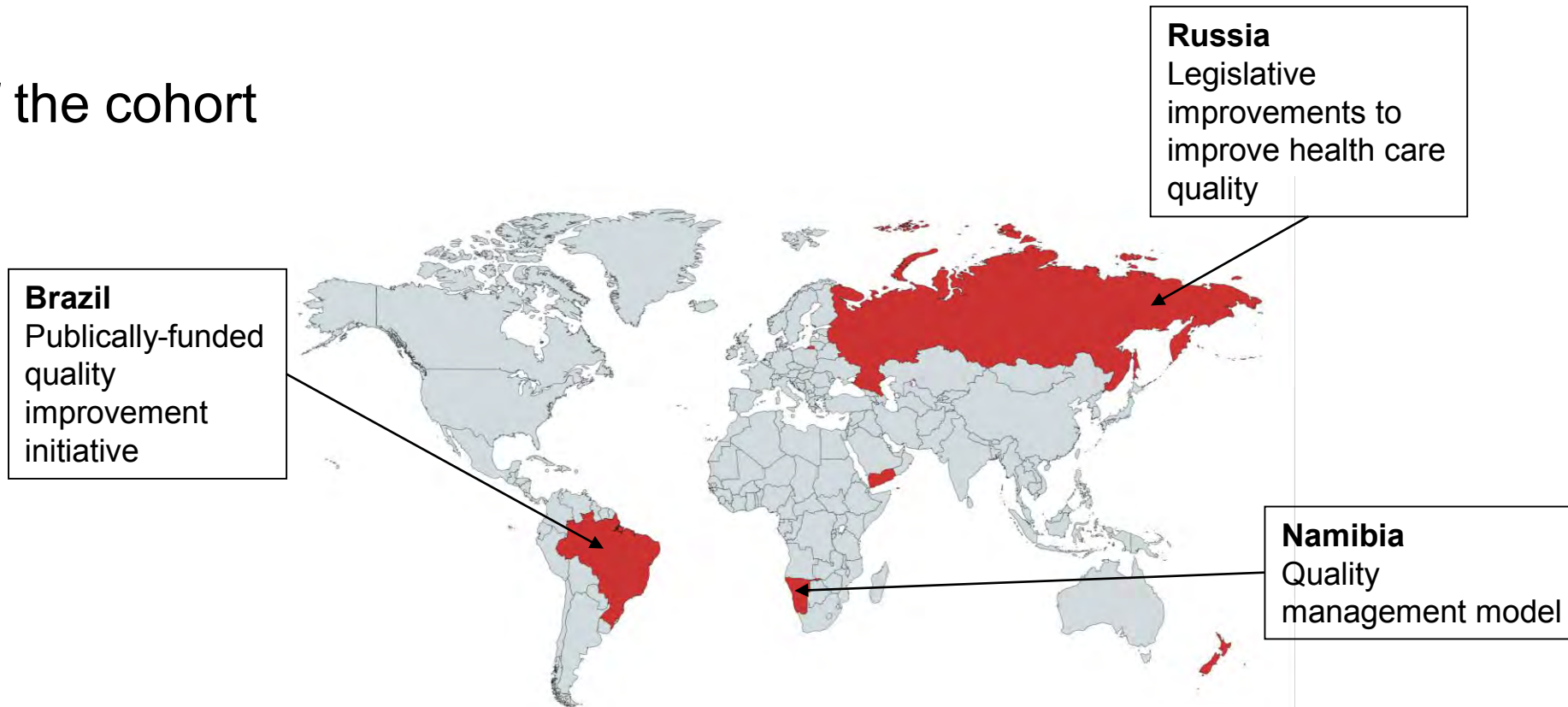


2. Enhancing the quality of care



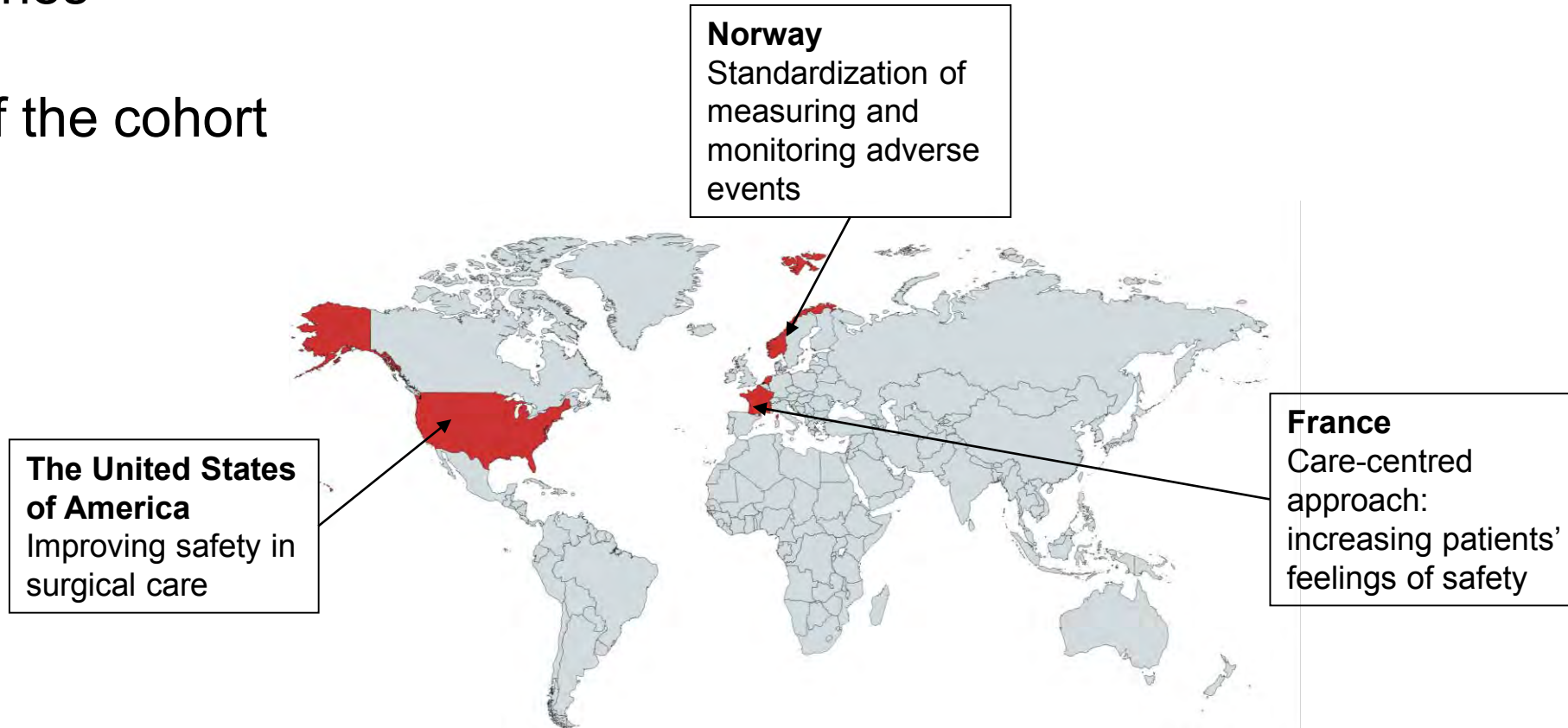
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- Societal, governmental and managerial efforts to improve quality of care
- 5 countries
- 7.7% of the cohort



3. Keeping patients safe

- Initiatives to improve the safety of those in care and reduce adverse events
- 4 countries
- 6.2% of the cohort



4. Regulating standards and accreditation

- External review processes and self-assessment tools for monitoring and improving performance levels
- 5 countries
- 7.7% of the cohort

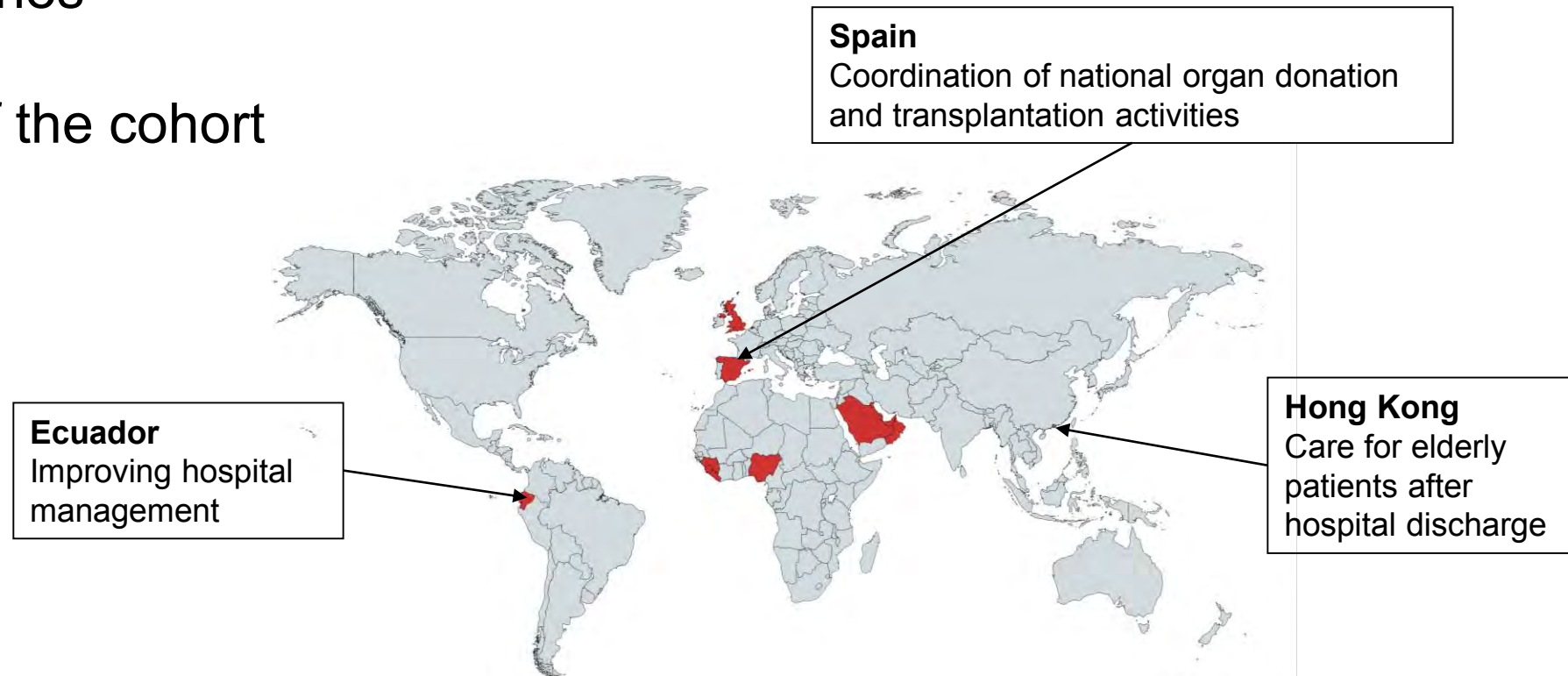


5. Organizing care at the macro-level



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- Large-scale coordination of care across professional boundaries and geographic borders
- 14 countries
- 21.5% of the cohort

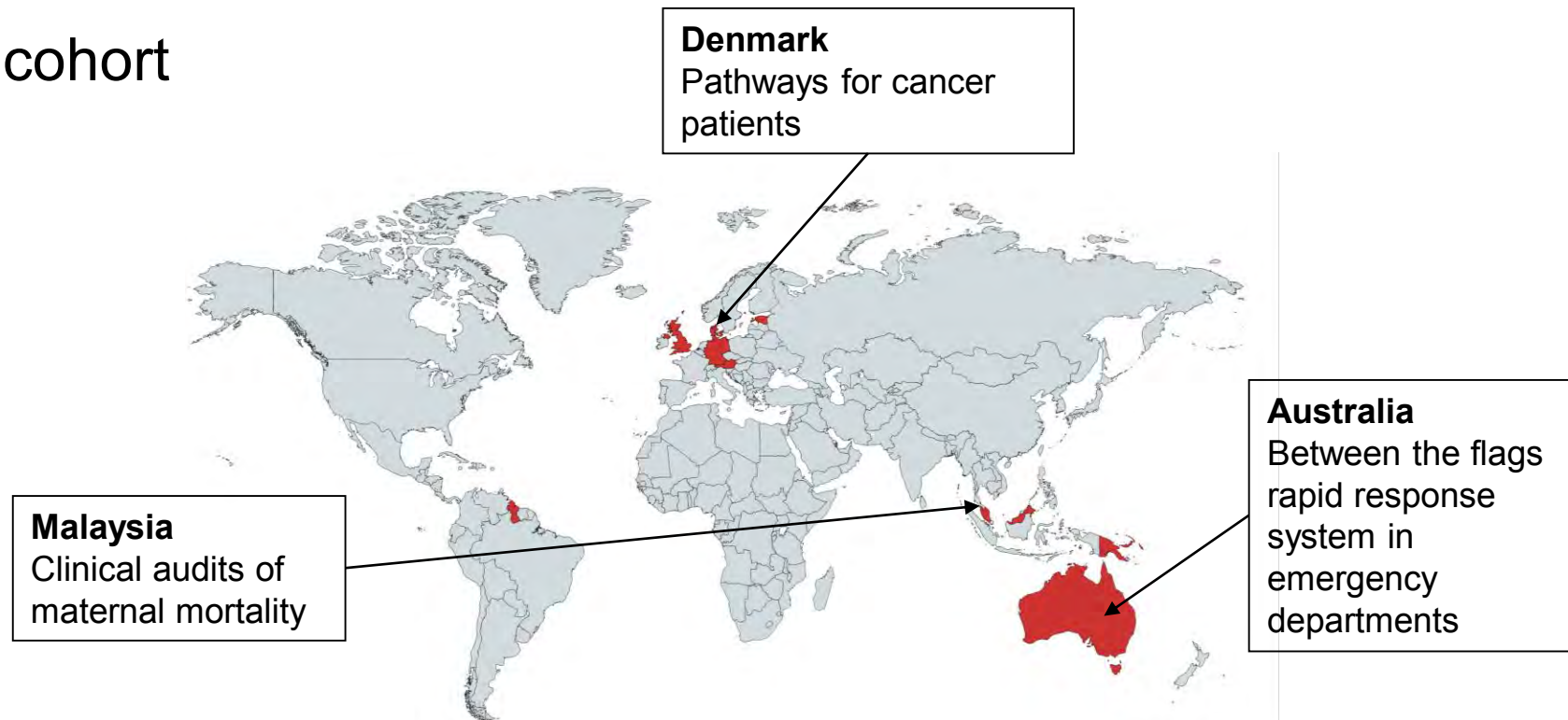


6. Organizing care at the meso- and micro-level



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University

- The organisation of care in practice within micro- and meso-level contexts
- 11 countries
- 16.9% of the cohort

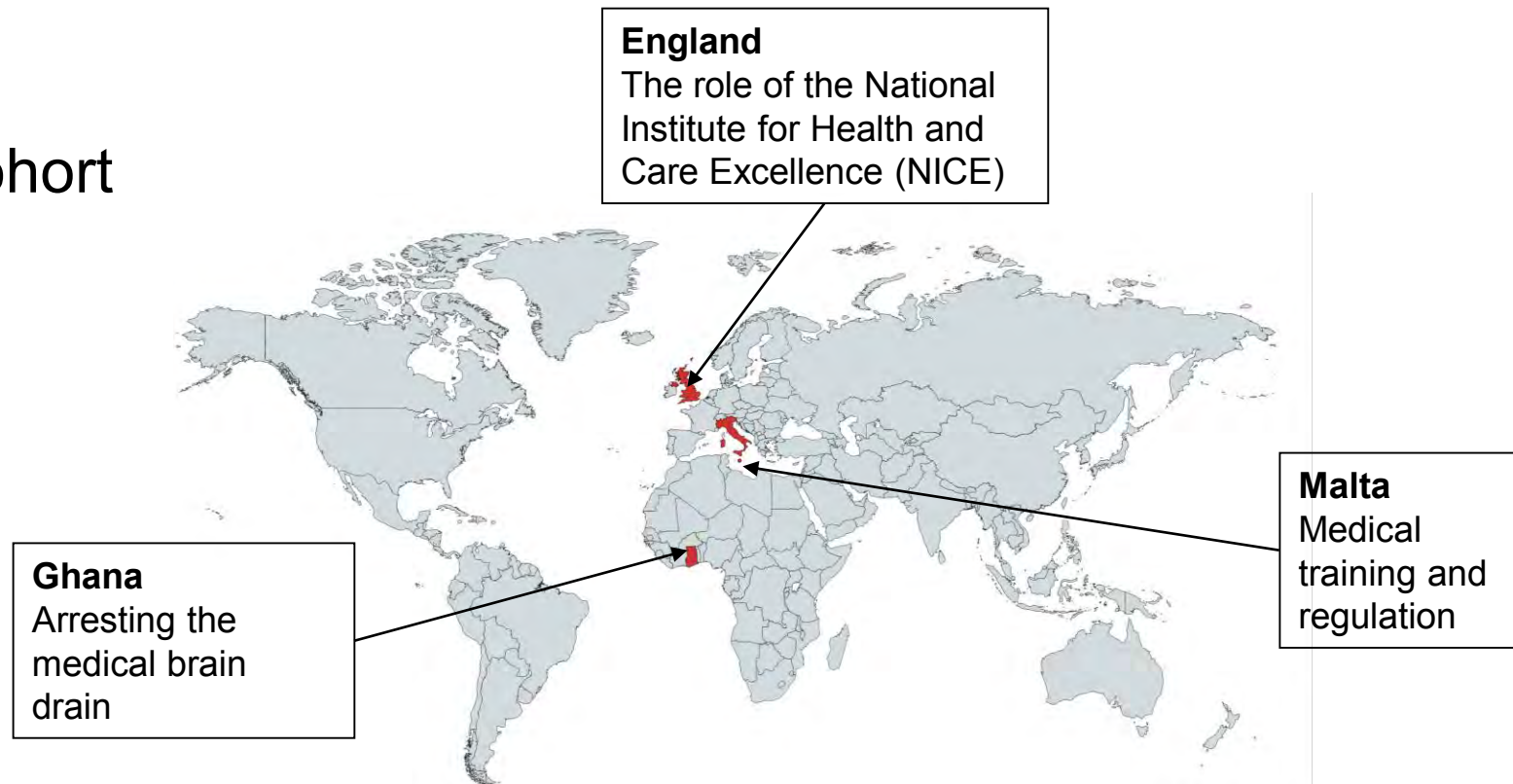


7. Developing workforces and resources



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University

- Workforce training, planning and development, and assessment of the cost-effectiveness of available treatments
- 4 countries
- 6.2% of the cohort



8. Harnessing technology and IT



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- The application of rapidly advancing technological innovations in health systems
- 8 countries
- 12.3% of the cohort

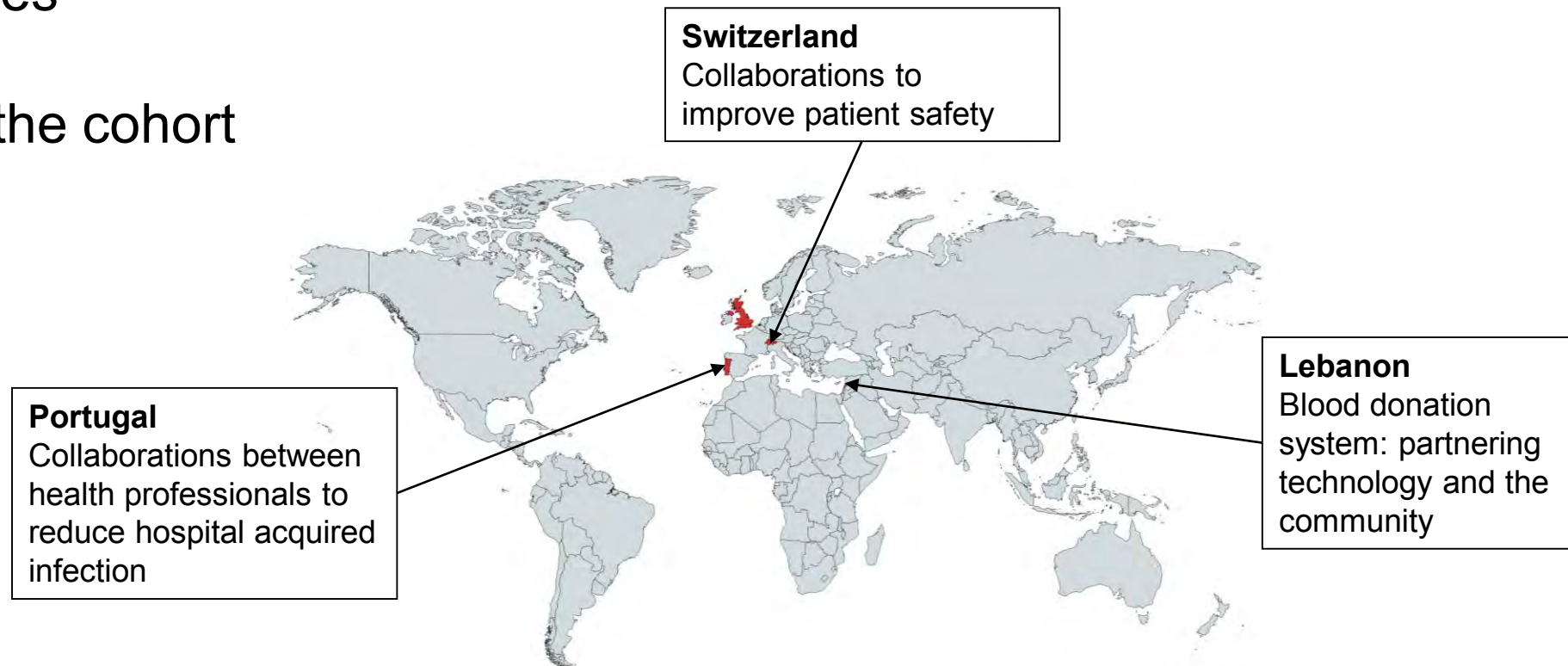


9. Making collaboratives and partnerships work



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- Formal and informal cooperative alliances working together to address health system dilemmas
- 4 countries
- 6.2% of the cohort



Transfer of knowledge across international borders



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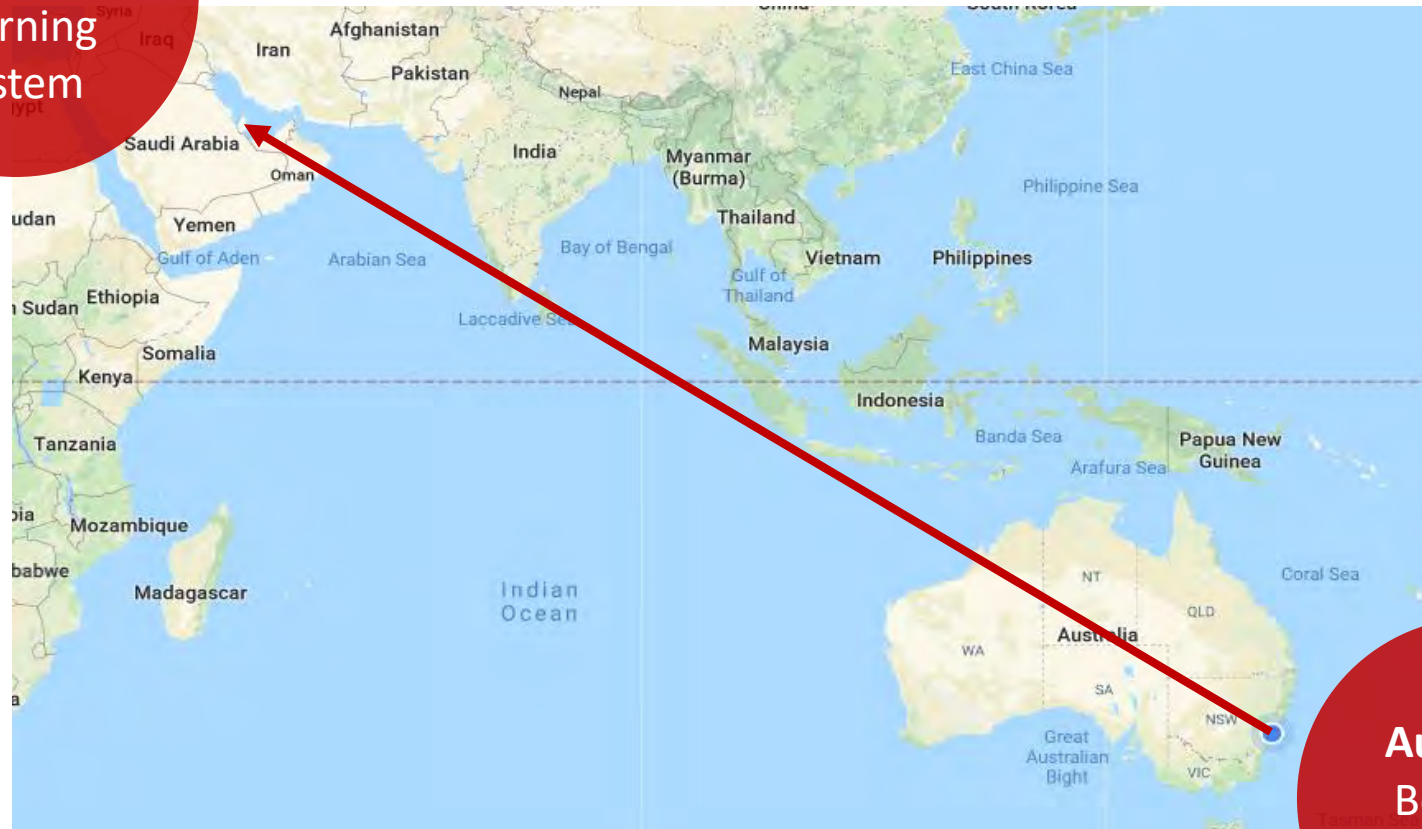
- Norway and Sweden have established cancer patient pathways inspired by Danish models
- The Gulf Cooperation Council's Group Purchasing Program
- Argentina's Department of Health Technology Assessment's collaboration with neighbouring countries throughout South America

Case Study: Australia and Qatar



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Qatar:
Qatar Early
Warning
System



Australia:
Between
the Flags

Key messages

- Positive deviance approach: what goes right
- All countries provided a success story, regardless of wealth, political structure, and available resources
- Transferability: learning across geographical borders, professional roles and disciplines



Learning across boundaries and borders



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- **Learning across geographical borders:** Close neighbours as well as countries elsewhere in the world
- **Learning across professional roles:** Policymakers, clinicians, managers, researchers, other stakeholders
- **Learning across disciplines:**
Aged care, acute care, emergency care, community care



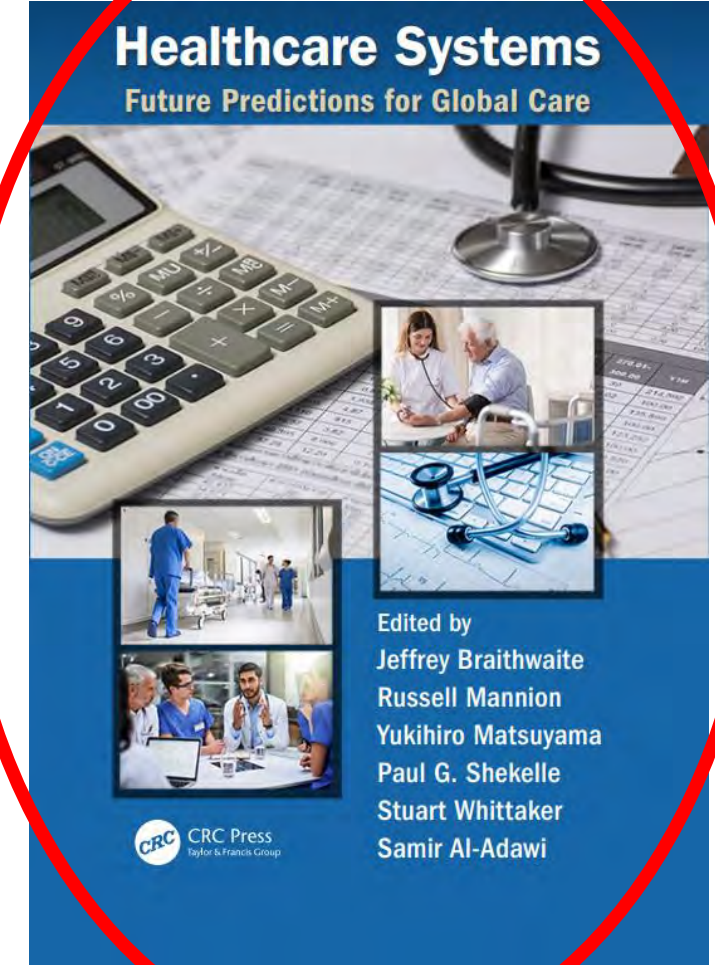
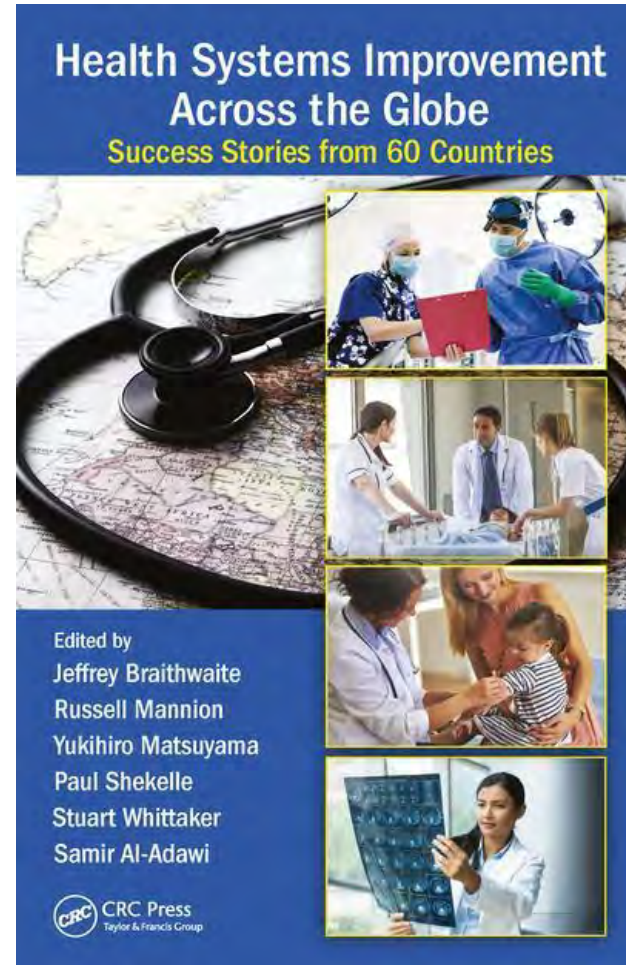
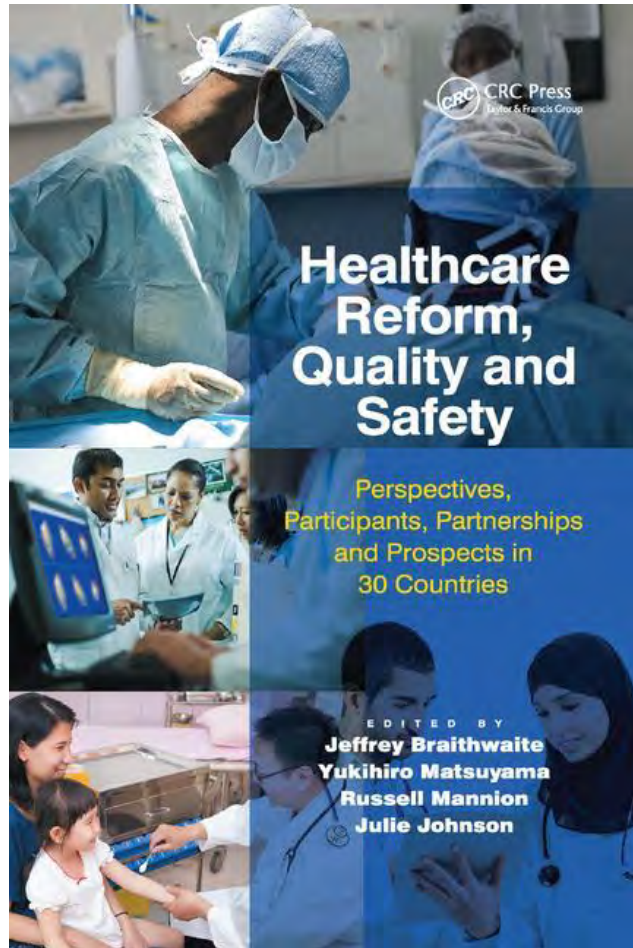


Part 4: The future of health systems

A series on international health reform



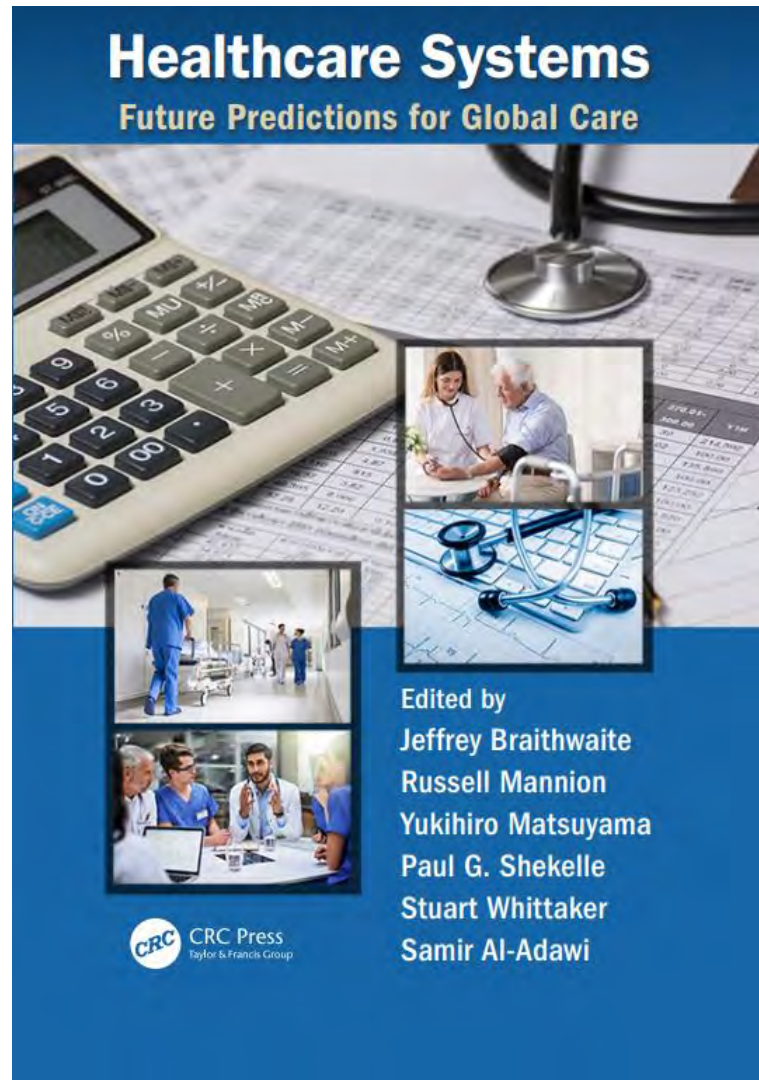
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Healthcare Systems: Future Predictions for Global Care



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ISBN:

978-1-138-05260-4

Website:

https://www.amazon.com/Healthcare-Systems-Future-Predictions-Global/dp/1138052604/ref=sr_1_1?s=books&ie=UTF8&qid=1527203715&sr=1-1&keywords=Health+care+systems+future+predictions+for+global+care

**AUSTRALIAN INSTITUTE
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*Faculty of Medicine and
Health Sciences*

Healthcare Systems: Future Predictions for Global Care



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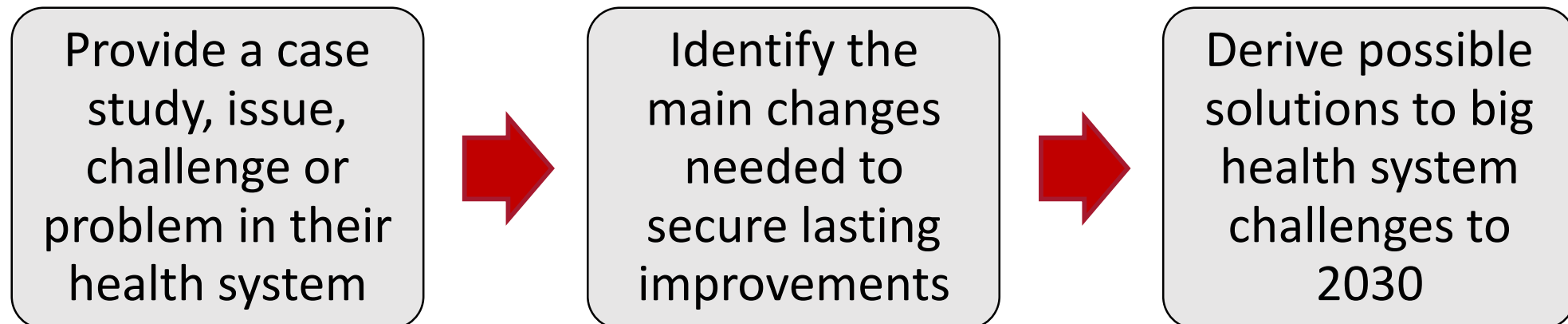
What will health systems look like in 5-15 years?

Regions: Americas, Africa, Europe, Eastern Mediterranean, South-East Asia and the Western Pacific.

Synthesises perspectives from 152 countries and territories around the world.

Contributors

- 148 contributing authors covering 152 countries and territories.
- 28 low-income, 40 lower-middle-income, 33 upper-middle-income, 46 high-income and five currently unclassified countries and territories.
- The authors' task were to:





What lessons can be taken from this global outlook on the future?

Five main trends

- The trends shaping health systems of the future:
 - Sustainable health systems
 - The genomics revolution
 - Emerging technologies
 - Global demographic dynamics
 - New models of care

The chapters



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The world in context through the eyes of our authors ...

What do you have to do?



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1. Integrate healthcare services
2. Provide sufficient finance
3. Shift to patient-based care and empowering the patient
4. Ensure Universal Health Care

What do you have to do?



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5. Exploit clinical information technology
6. Prepare for aging populations
7. Adequately fund preventative care
8. Harness accreditation, standards and policy
9. Invest in human development, education and training

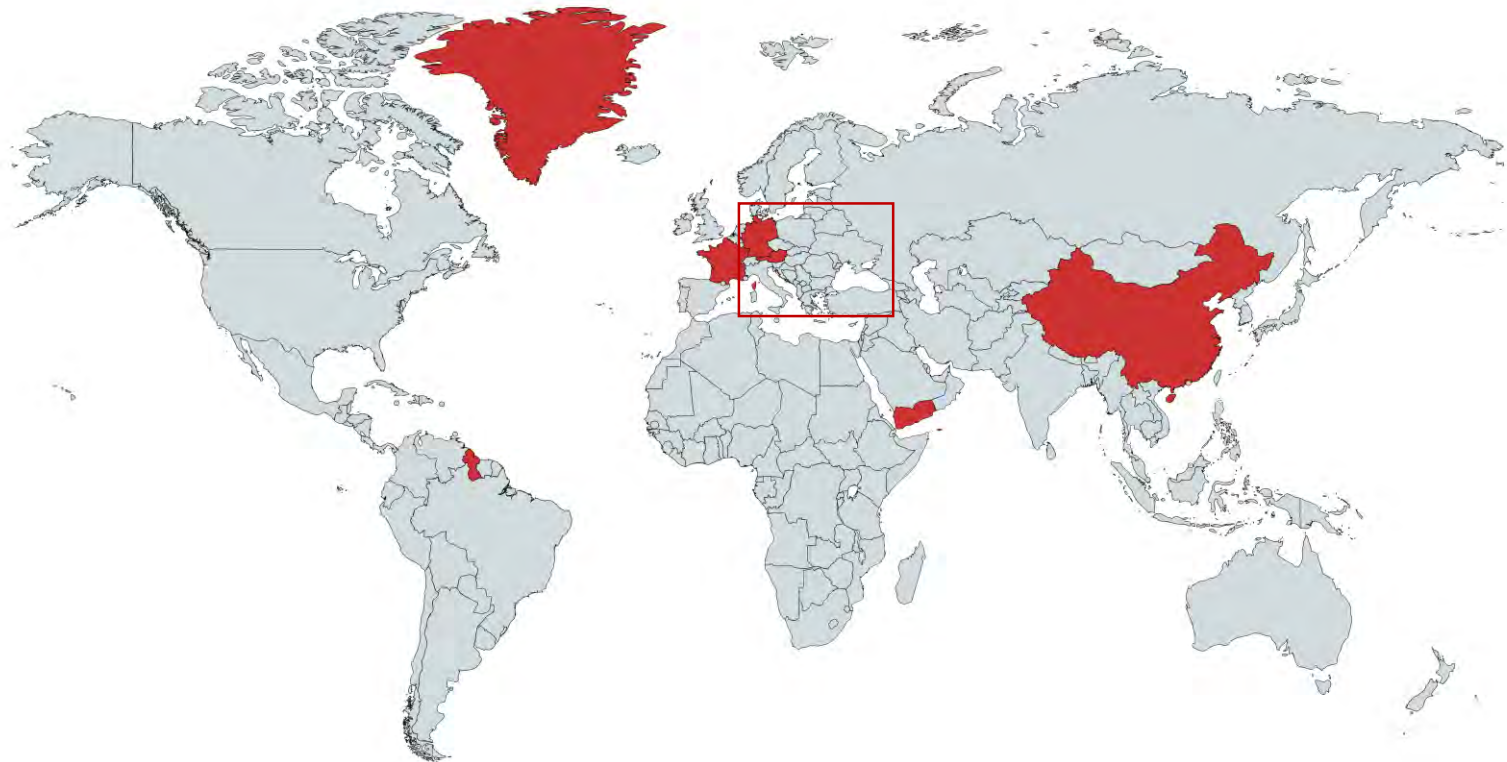
1. Integration of healthcare services



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- Important step in creating coordinated care delivery and reducing waste
- Eight chapters
- 14% of total

+ Region:
Central and
Eastern Europe



2. Financing, economics and insurance



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University

- Affordability of care and resource allocation in healthcare is a global issue
- Five chapters
- 9% of cohort

+ Region:
Africa



3. Patient-based case and empowering the patient



MACQUARIE
University

- Educating and empowering patients to be involved in their own care
- Eight chapters
- 14% of total



4. Universal healthcare

- Strong support globally for the greatest care in the most cost-efficient way
- Three chapters
- 5% of total

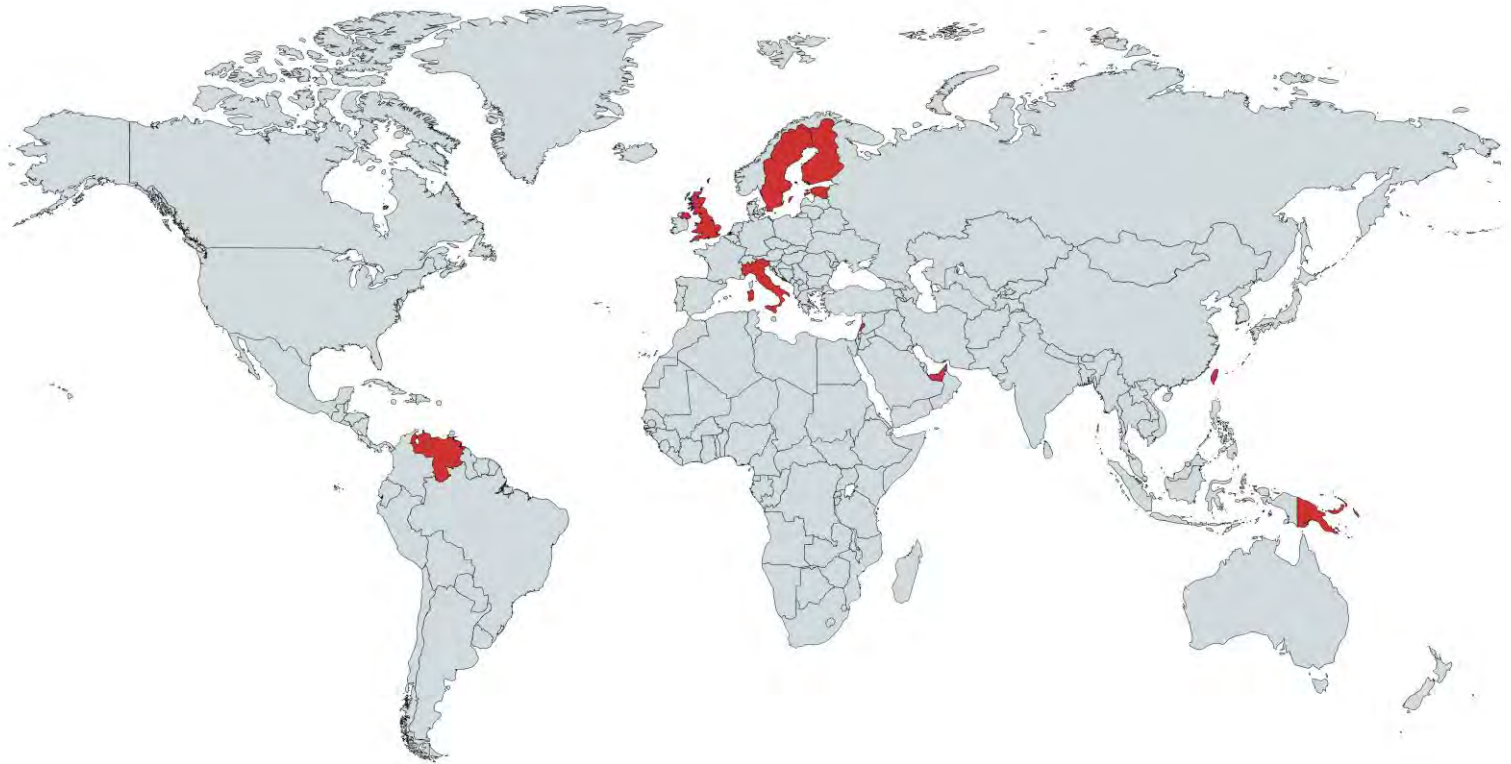
+ Region:
Central
Asia



5. Clinical and information technology



- To improve efficiency and timeliness of care delivery, and patient access to services and information
 - Ten chapters
 - 18% of total
- 
- A map of Norway is shown in the bottom right corner. The southern part of the country, including the Oslo region, is highlighted in red, while the rest of the country is in light blue.



6. Aging populations

- The need for care for older patients including their comorbidities, fragility and cognitive decline
- Four chapters
- 7% of total



7. Preventative care



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University

- An ounce of prevention is worth a pound of cure
- Three chapters
- 5% of total

**+ Region:
South-East
Asia**



8. Accreditation, standards and policy



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- Shared goal of improving patient safety and strengthening the health system through one or all of these methods
- Nine chapters
- 16% of total

+ Region:
Middle East
and North
Africa



9. Human development, education and training



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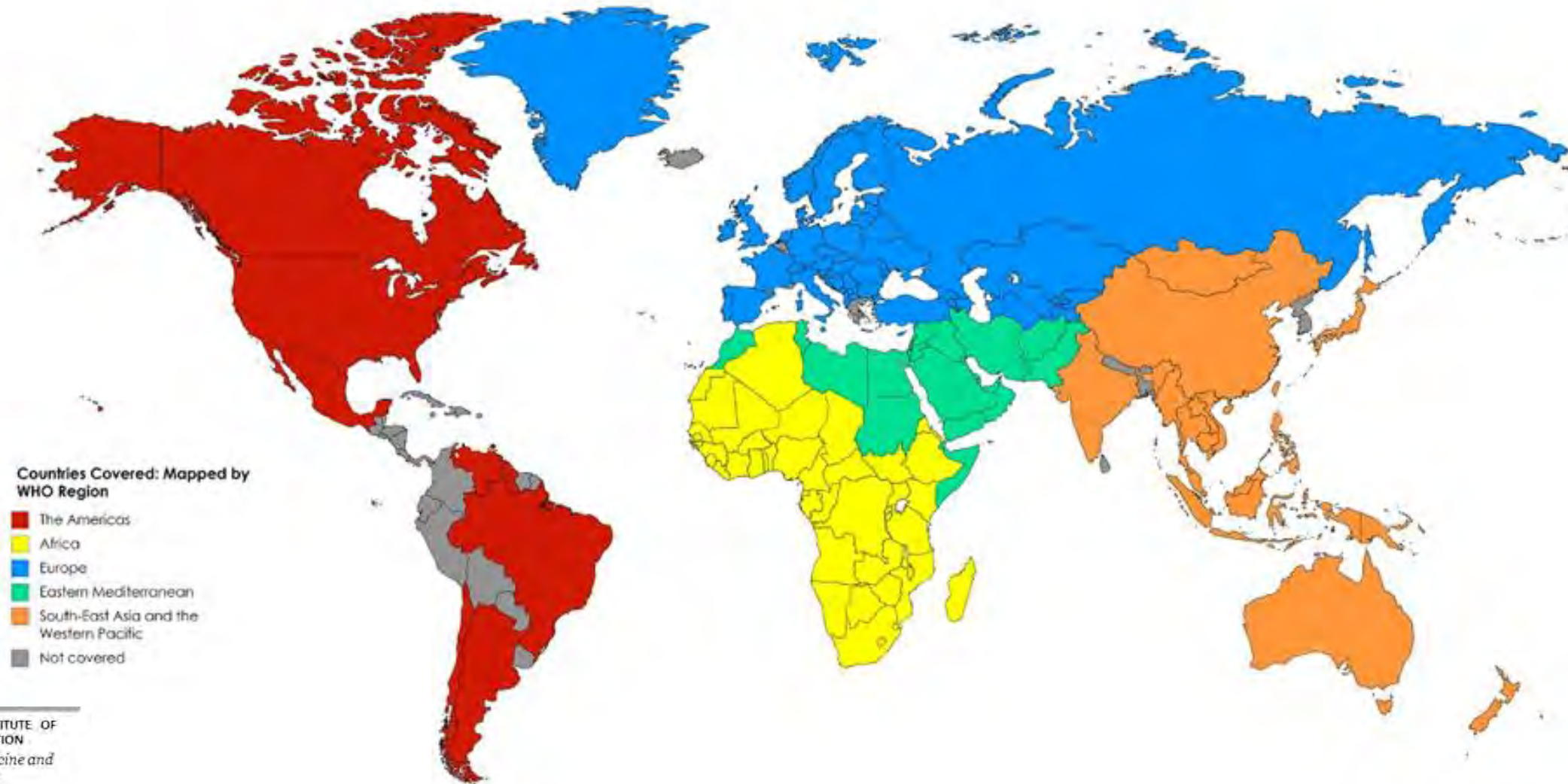
- Human development is crucial; from workforce recruitment to professional development and supporting leadership roles
- Seven chapters
- 12% of total



The result ... countries covered



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The health system of the future: features



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- Inclusive and equitable
- More integrated
- Patient focused
- More evidence-based
- Applies technology (AI, genomics, etc.) wisely
- Cost-effective

The health system of the future: features



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- A learning system
- Improvement must be in the DNA of reformers
- Less waste
- Less harm
- Universal care
- Has a roadmap for change

Key message



- A comprehensive and encouraging look at the future:
 - Gets us to move towards progress (vs. status quo)
 - Helps us to identify and avoid pitfalls in the system
 - Creates a roadmap to positive and sustainable change



**How is BC travelling in
the light of this
international experience?**



Discussion: comments, questions, observations?

Australian Institute of Health Innovation



Acknowledgements



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Complexity Science / Genomics

Dr Kate Churruca
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Dr Janet Long
Dr Stephanie Best
Dr Hanna Augustsson

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Dr Robyn Clay-Williams
Dr Elizabeth Austin
Dr Brette Blakely
Teresa Winata

NHMRC Partnership Centre for Health System Sustainability

Joanna Holt
Prof Yvonne Zurynski
Dr Trent Yeend
Dr K-lynn Smith

Implementation Science

Prof Frances Rapport
Dr Patti Shih
Mia Bierbaum
Dr Emilie Auton
Dr Mona Faris

Health Outcomes

A/Prof Rebecca Mitchell
Dr Reidar Lystad
Dr Virginia Mumford

CareTrack Aged / Patient Safety

Peter Hibbert
Dr Louise Wiles
Ms Charlie Molloy
Pei Ting

NHMRC CRE Implementation Science in Oncology

Dr Gaston Arnolda
Dr Yvonne Tran
Dr Bróna Nic Giolla Easpaig
Dr Klay Lamprell

Admin and project support

Sue Christian-Hayes
Jackie Mullins
Chrissy Clay
Caroline Proctor

Research support

Meagan Warwick
Dr Wendy James

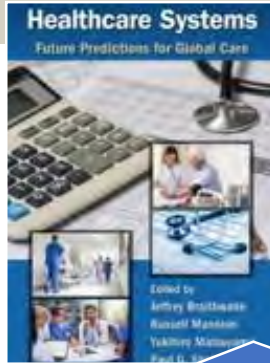
Research Candidates

Chiara Pomare
Elise McPherson
Hossai Gul
Kristiana Ludlow
Zeyad Mahmoud
Sheila Pham
Katie Adriaans
Luke Testa
Jess Herkes

Recently published books



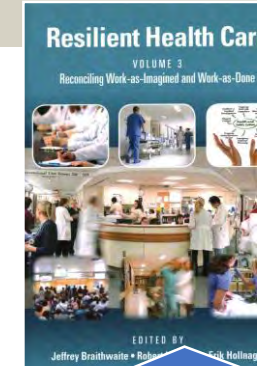
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2018-Healthcare Systems:
Future Predictions for
Global Care



2017 - Health Systems
Improvement Across the Globe:
Success Stories from 60
Countries



2017 - Reconciling Work-
as-imagined and work-as-
done



2016 - The Sociology of
Healthcare Safety and
Quality



2015 - Healthcare Reform, Quality
and Safety: Perspectives, Participants,
Partnerships and Prospects in 30
Countries



2015 - The Resilience of
Everyday Clinical Work



2013 - Resilient Health
Care



2010 - Culture and
Climate in Health Care
Organizations

Forthcoming books



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