



Don't forget to join in the  
conversations on twitter  
Tweet us at **#quality2019**

**B5 #qfb5**

# Equity centered Health System Strengthening approach: Case of Rwanda

Joel M. Mubiligi, MD. Executive  
Director, Partners In Health- Rwanda



# Rwanda: Location



Rwanda: 26,300 km<sup>2</sup>

# Social Overview

- **Population** : 12,374,397 (2017)
- **Population Density** : 467 people/km<sup>2</sup> in (2017)
- **Population living in rural areas** : 80.1% (2017)
- **Languages** : Kinyarwanda, English, French, Swahili
- **Religion** :
  - Roman Catholic : **56.5%**
  - Protestant : **26%**
  - Adventist: **11%**
  - Muslim : **4.6%**

# Economic Overview

- Gross domestic product (GDP) per capita (2017): \$774
- Percentage of population living in extreme poverty (2017): 16%
- Average annual GDP growth over past decade (2007-17): 7.5%

Source: National Institute of Statistics of Rwanda (NISR) (2018): Fifth Integrated Household Living Conditions Survey 2016/17 (EICV5)



# Rwanda's Development

1. Rapid economic growth
2. Dramatic improvements in population health outcomes
3. Reduced inequality and increased access to services: health, education, financial inclusion

# **Vision of the Health Sector in Rwanda**

**“Pursuing an integrated and community-driven development process through provision of equitable and accessible quality health care services to all citizens”.**

## **Major advantages :**

- Commitment of the Government of Rwanda
- Clear vision and strategy

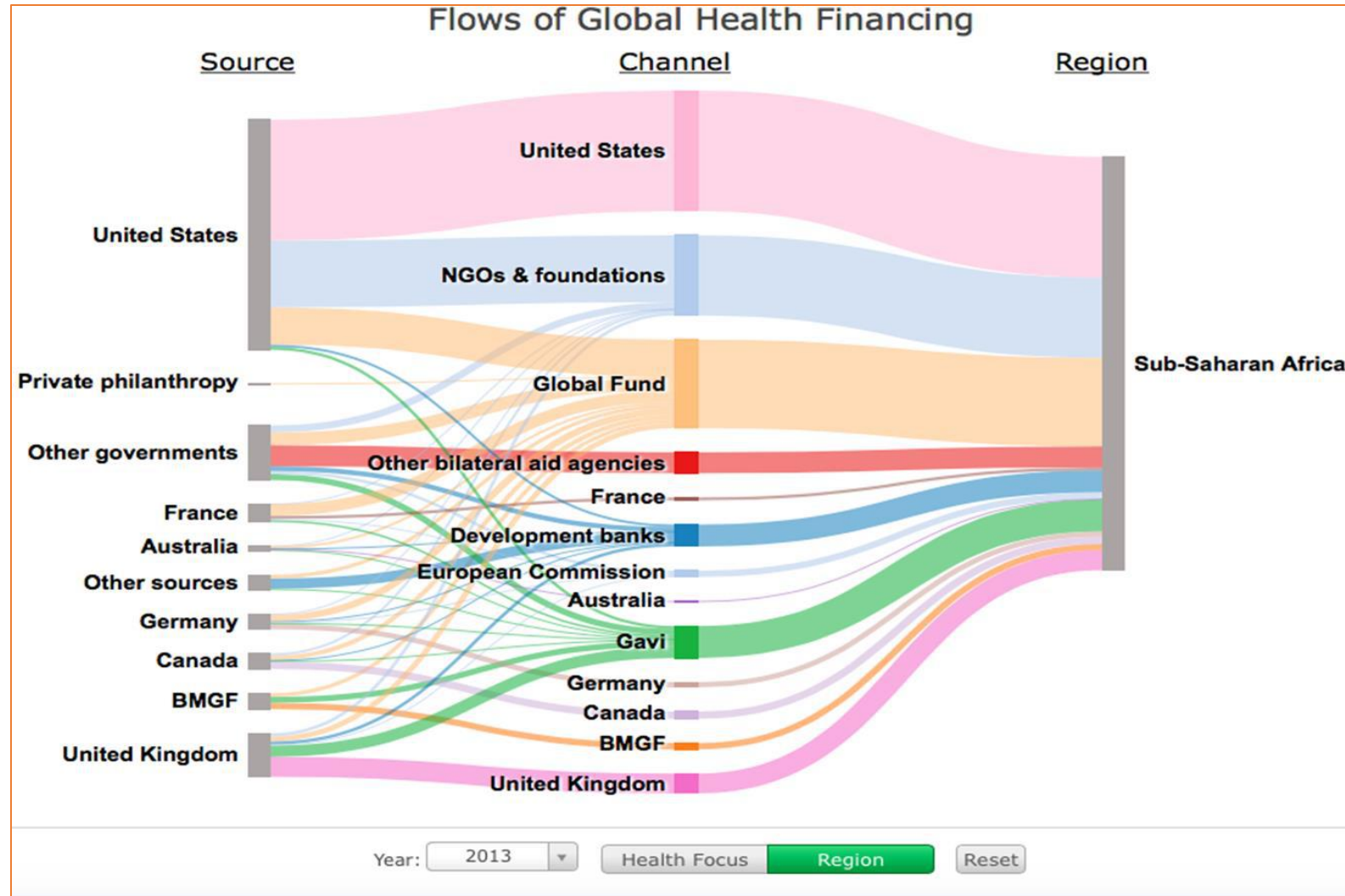
## **Major challenge :**

- Funds
- Human Resources for Health

# Use of vertical funds to build & strengthen a decentralized health system

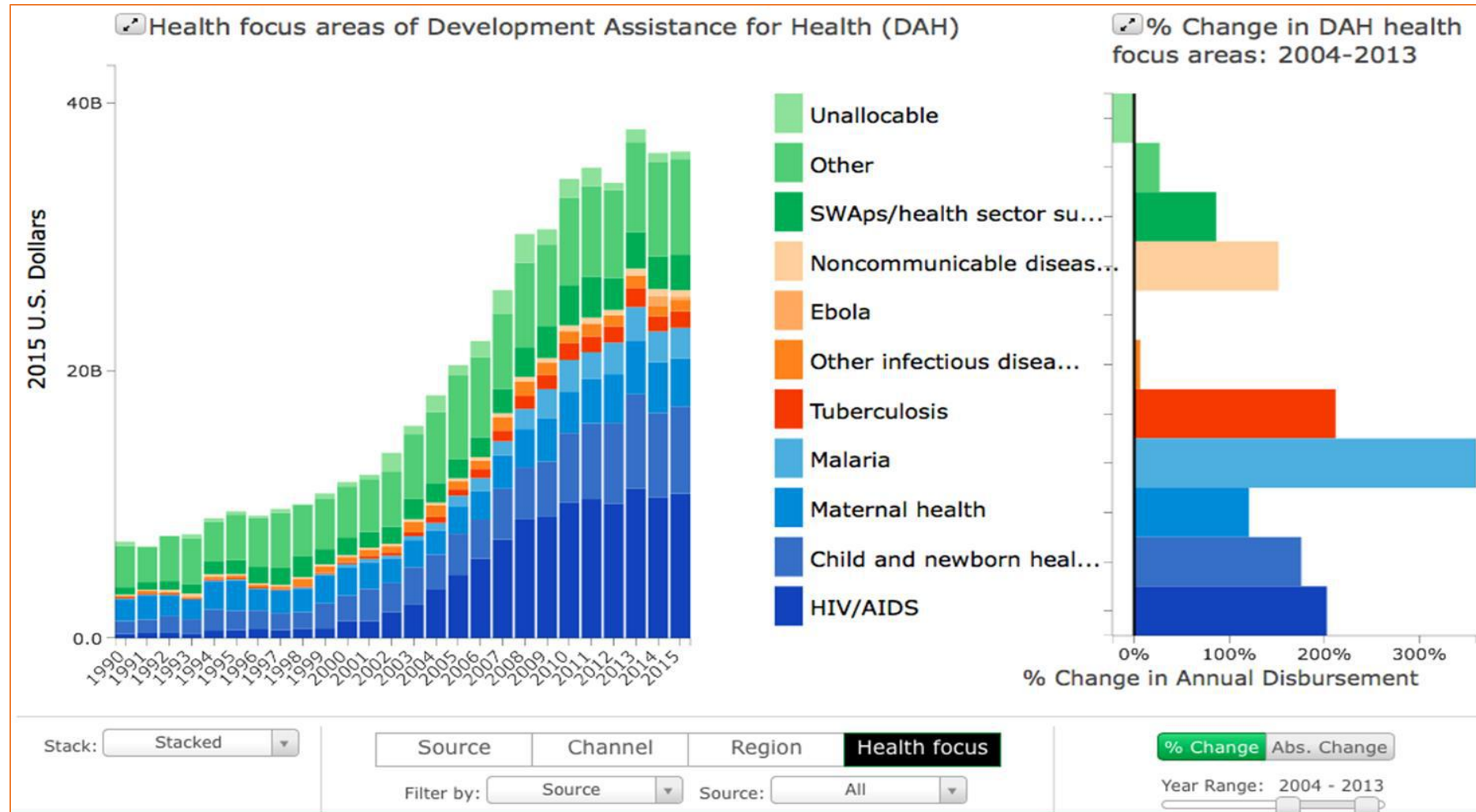
- In 2002, major sources of HIV program funding began flowing to Rwanda from the Global Fund and PEPFAR.
- The rapid multiplication of development partners involvement, resulted into poor coordination, duplication of work, and wasted resources.
- To address this challenge, the Government of Rwanda increased its ownership of aid coordination/management to strengthen the alignment of ODA with the national priorities, plans, and systems.

# Use of vertical funds to build & strengthen a decentralized health system (Cont'd)



Source: Institute for Health Metrics and Evaluation. <http://vizhub.healthdata.org/fgh/> Flows > Region > Sub-Saharan Africa

# Use of vertical funds to build & strengthen a decentralized health system (Cont'd)

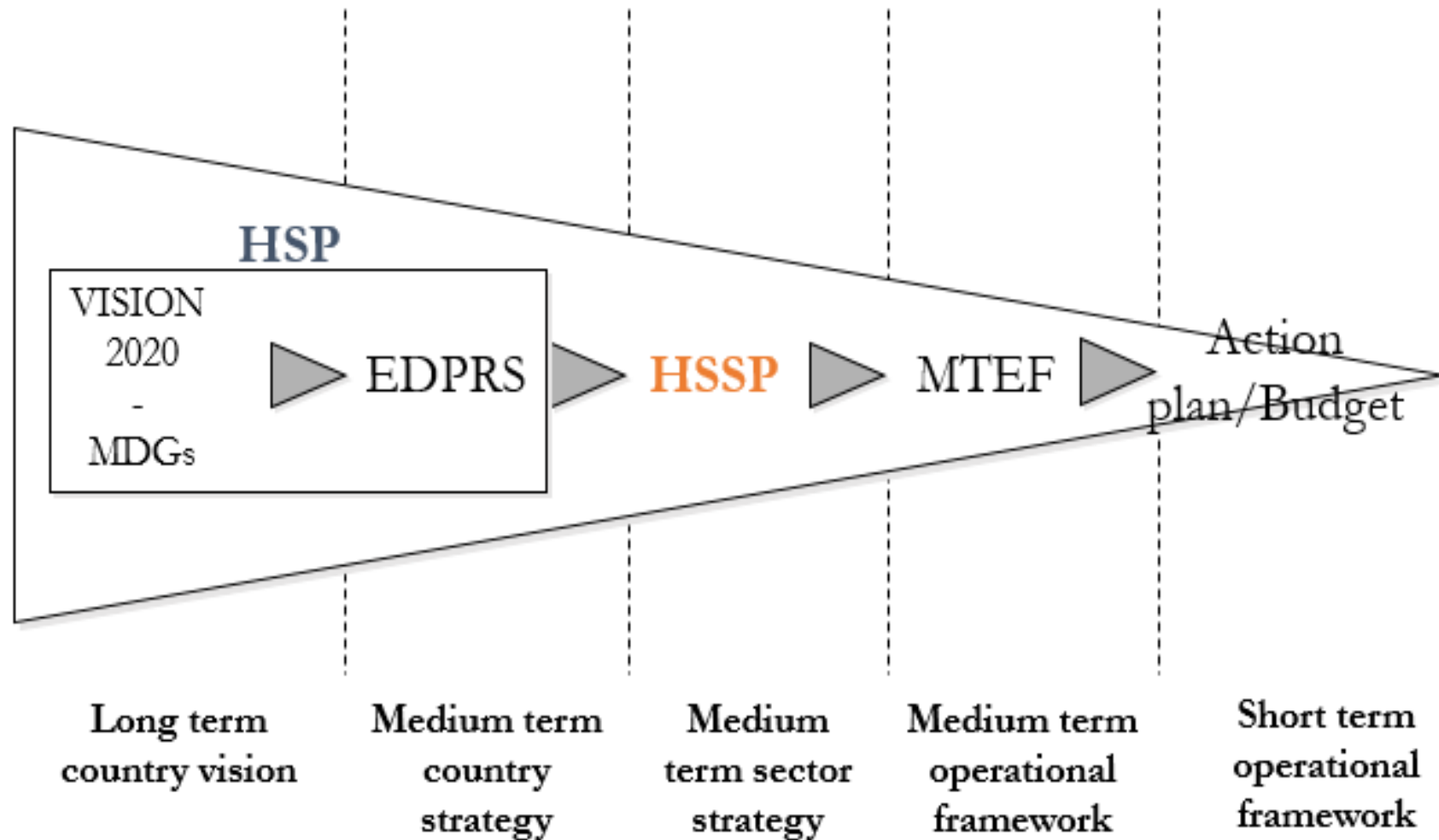


Source: Institute for Health Metrics and Evaluation. <http://vizhub.healthdata.org/fgh/> Trends > Health focus

# Use of vertical funds to build & strengthen a decentralized health system (Cont'd)

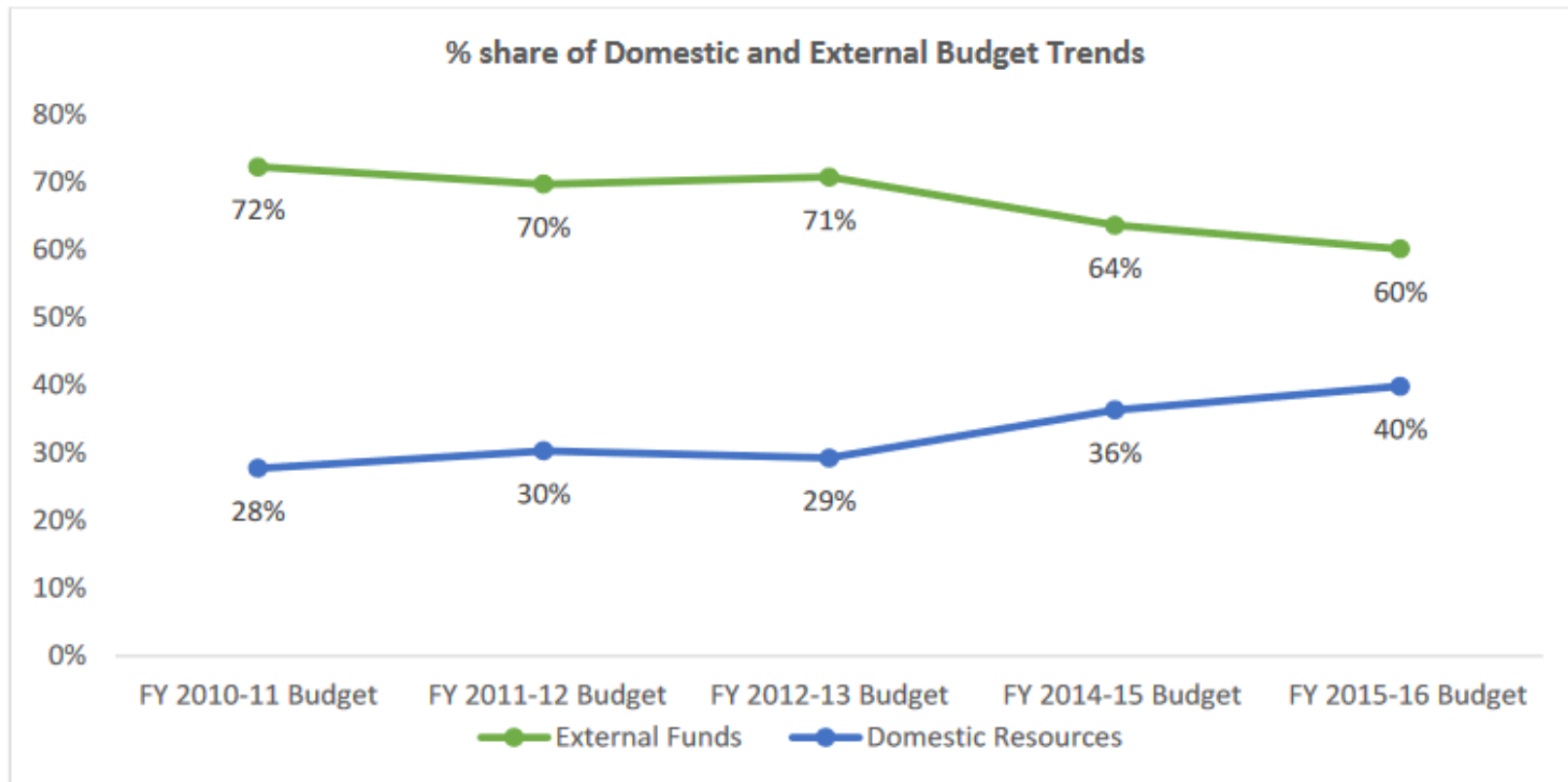
- HIV program funding was used to strengthen the health system in a multitude of ways, including:
  - Community Based Health Insurance
  - PBF
  - Supply chain systems
  - Information systems
  - Health workforce improvements
- MoH prioritized integrated and community-based platforms.
- Continuous increase of the domestic funding of health programs.

# Rwanda Vision & Strategic Planning

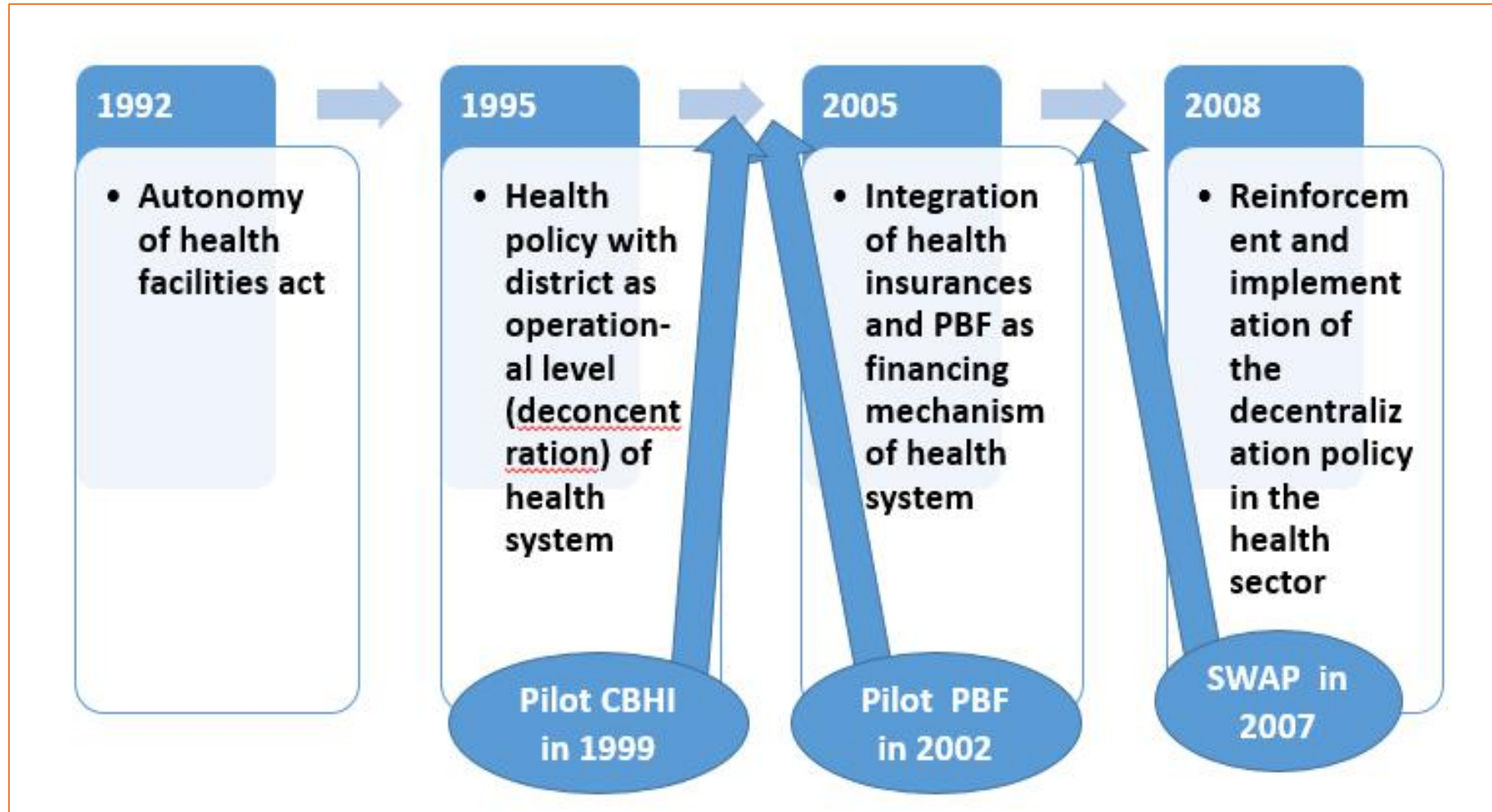


# Health Sector Expenditure Increase

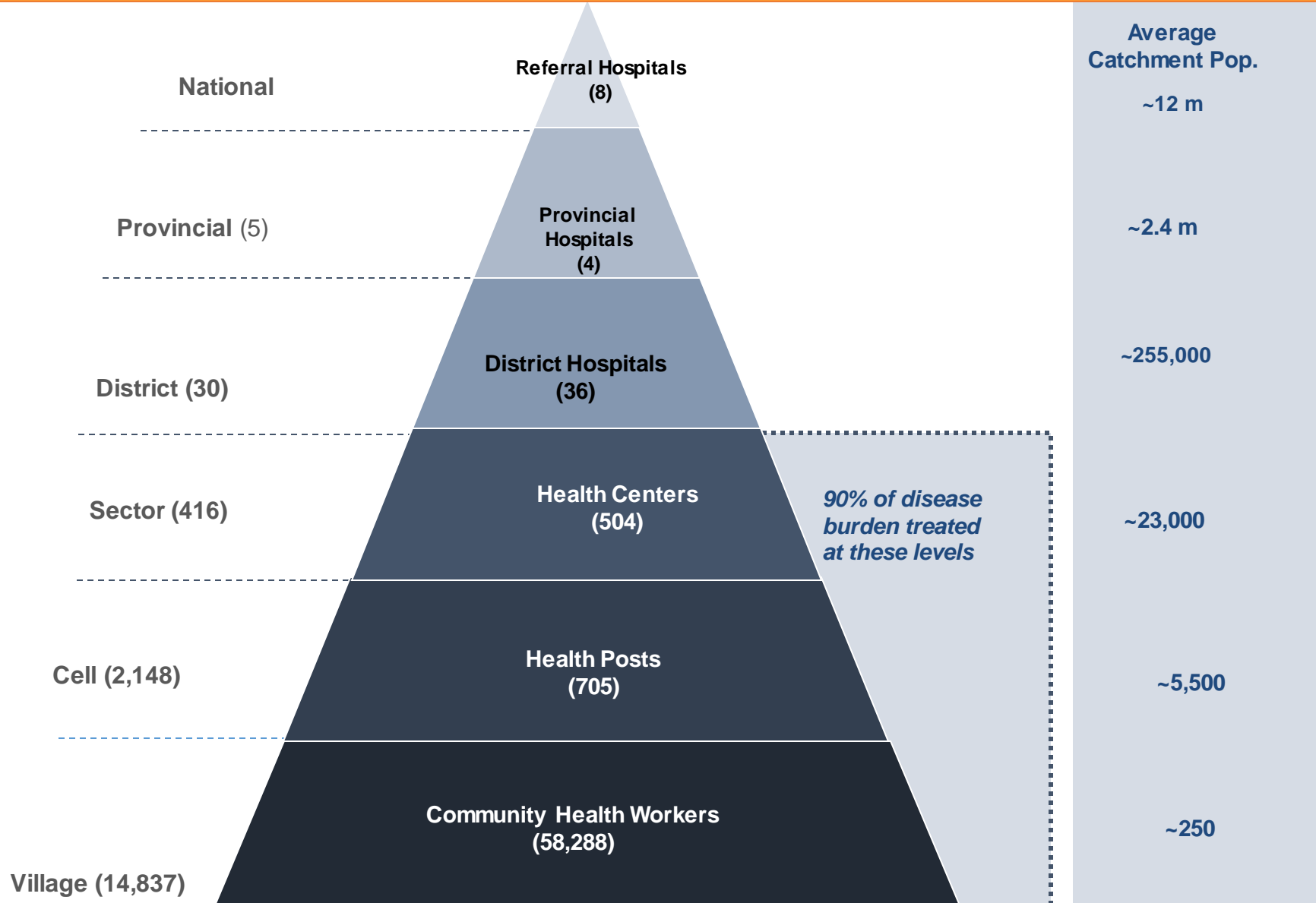
Figure 5: YOY Budget Trends by Share of Domestic and External Funding Sources



# Key dates & events for the reforms in the health sector

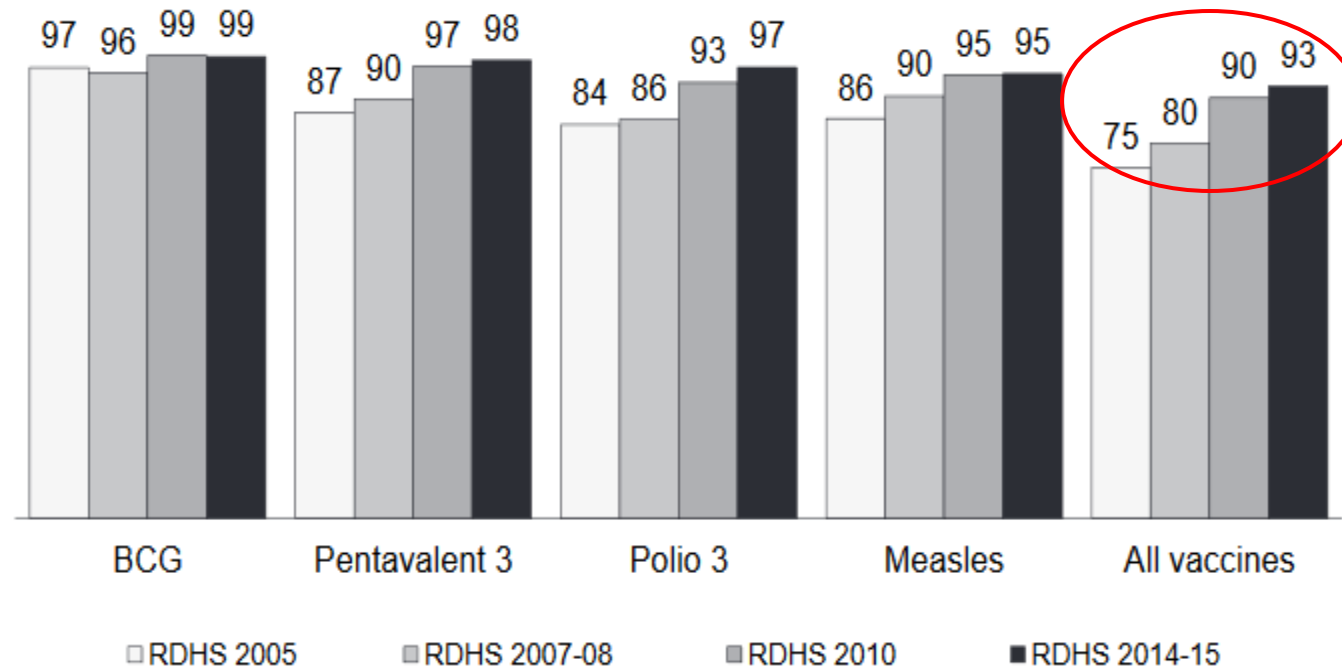


# Rwanda's Health System



# Vaccination Coverage in Rwanda

**Figure 10.1** Trends in vaccination coverage among children age 12-23 months

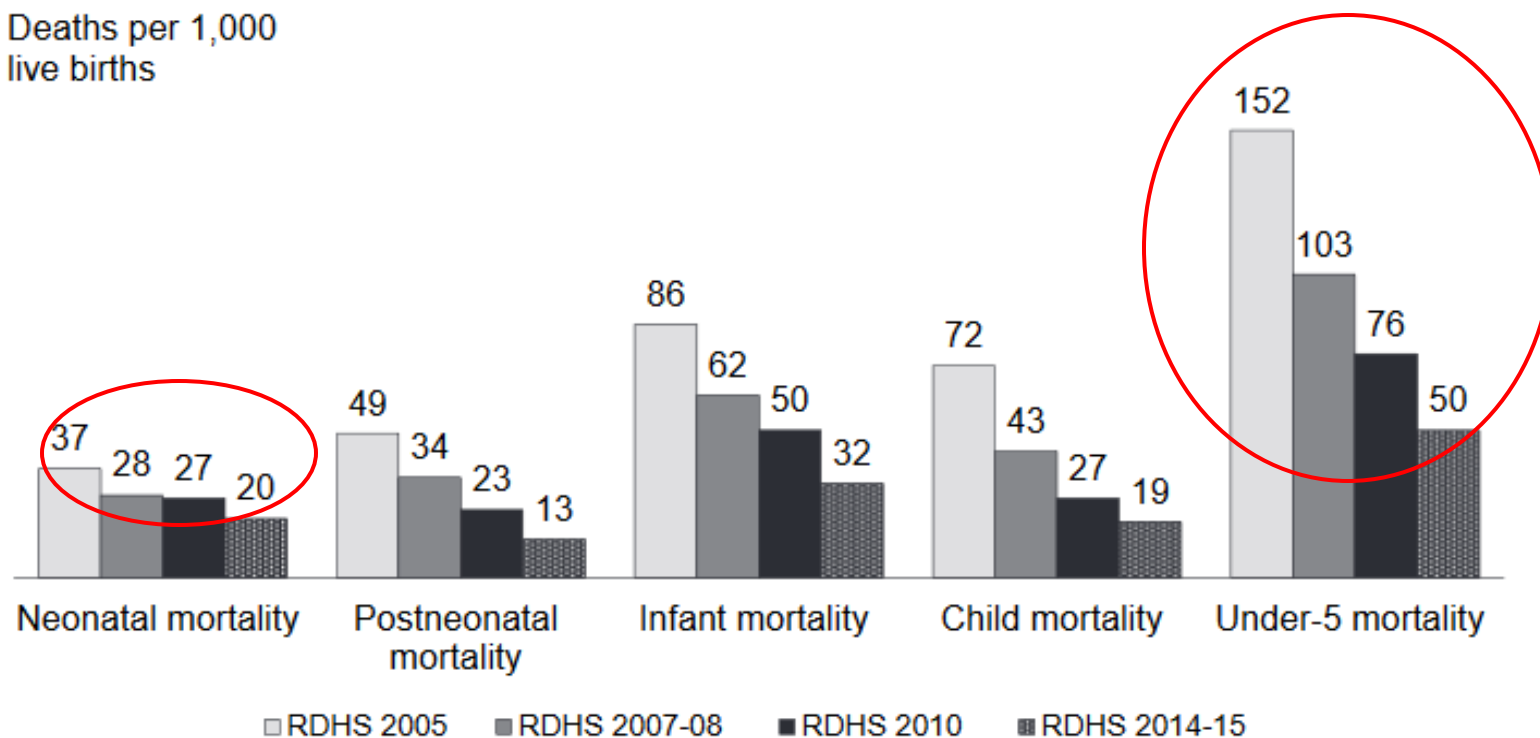


Note: All vaccines includes BCG, measles and three doses each of pentavalent and polio vaccine

# Child Mortality in Rwanda

**Figure 8.1 Trends in childhood mortality rates**

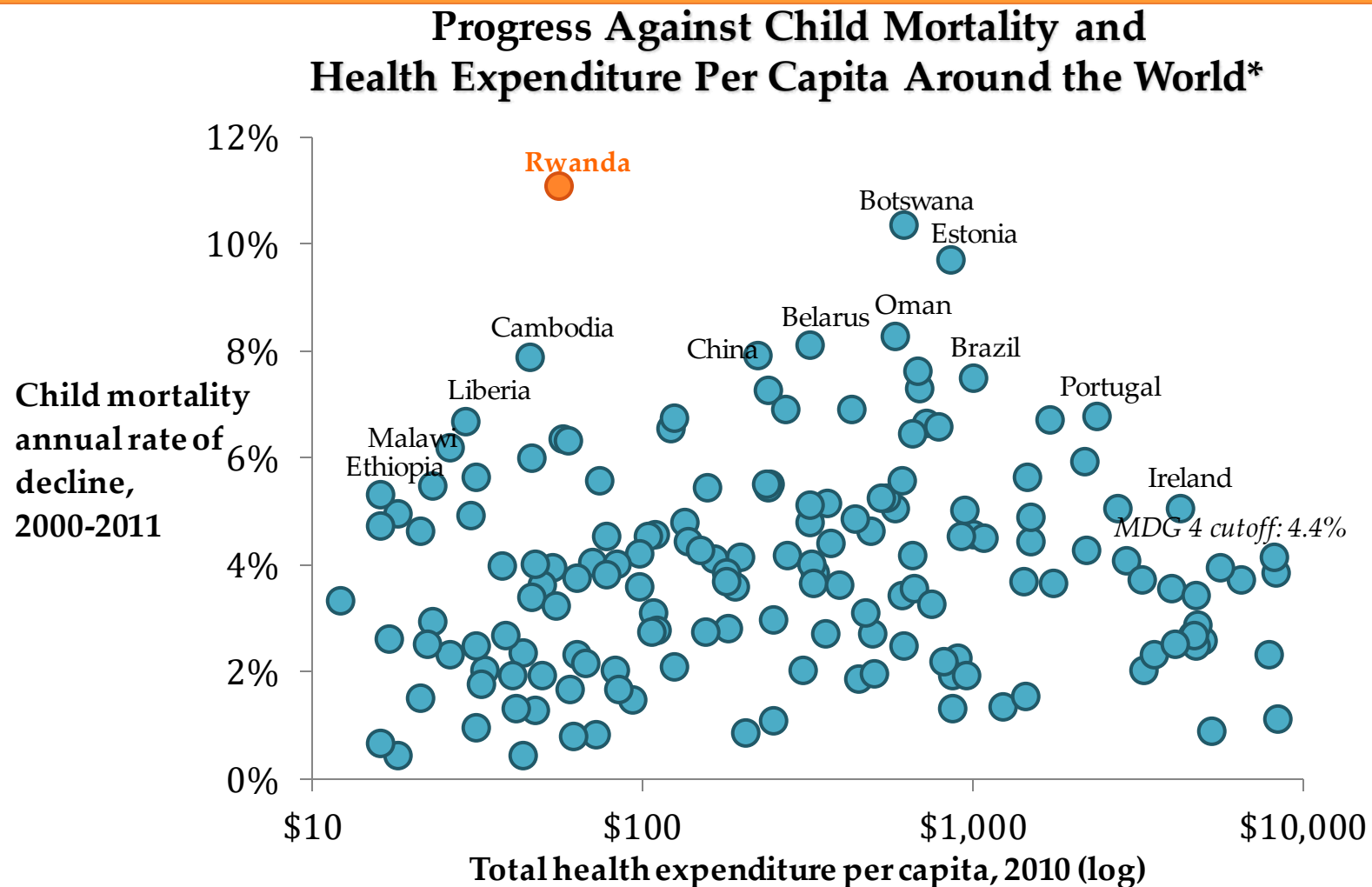
Deaths per 1,000  
live births



RDHS 2014-15

Rwanda DHS, 2014 – 2015 – Final Reports (English)

# Child Mortality in Rwanda (Cont'd)

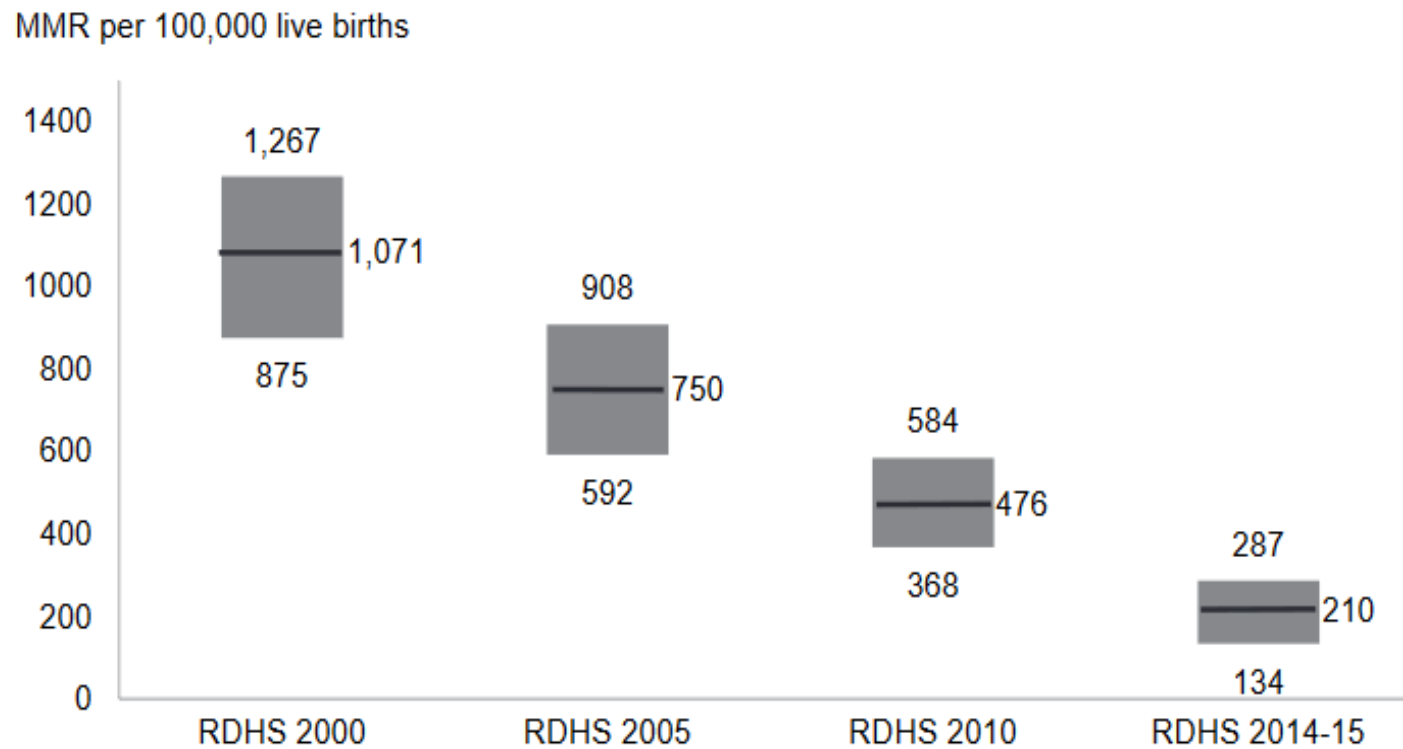


\*Only countries with populations greater than 500,000 were included

Farmer PE, Nutt CT, Wagner CM, Sekabaraga C, Nuthulaganti T, et al. (2013). "Reduced Premature Mortality in Rwanda: Lessons from Success." *British Medical Journal* 346(f65): [e-pub ahead of print].

# Maternal Mortality Rate

**Figure 16.1** Maternal mortality ratios for the period 0-4 years prior to the 2000, 2005, 2010, and 2014-15 RDHS surveys



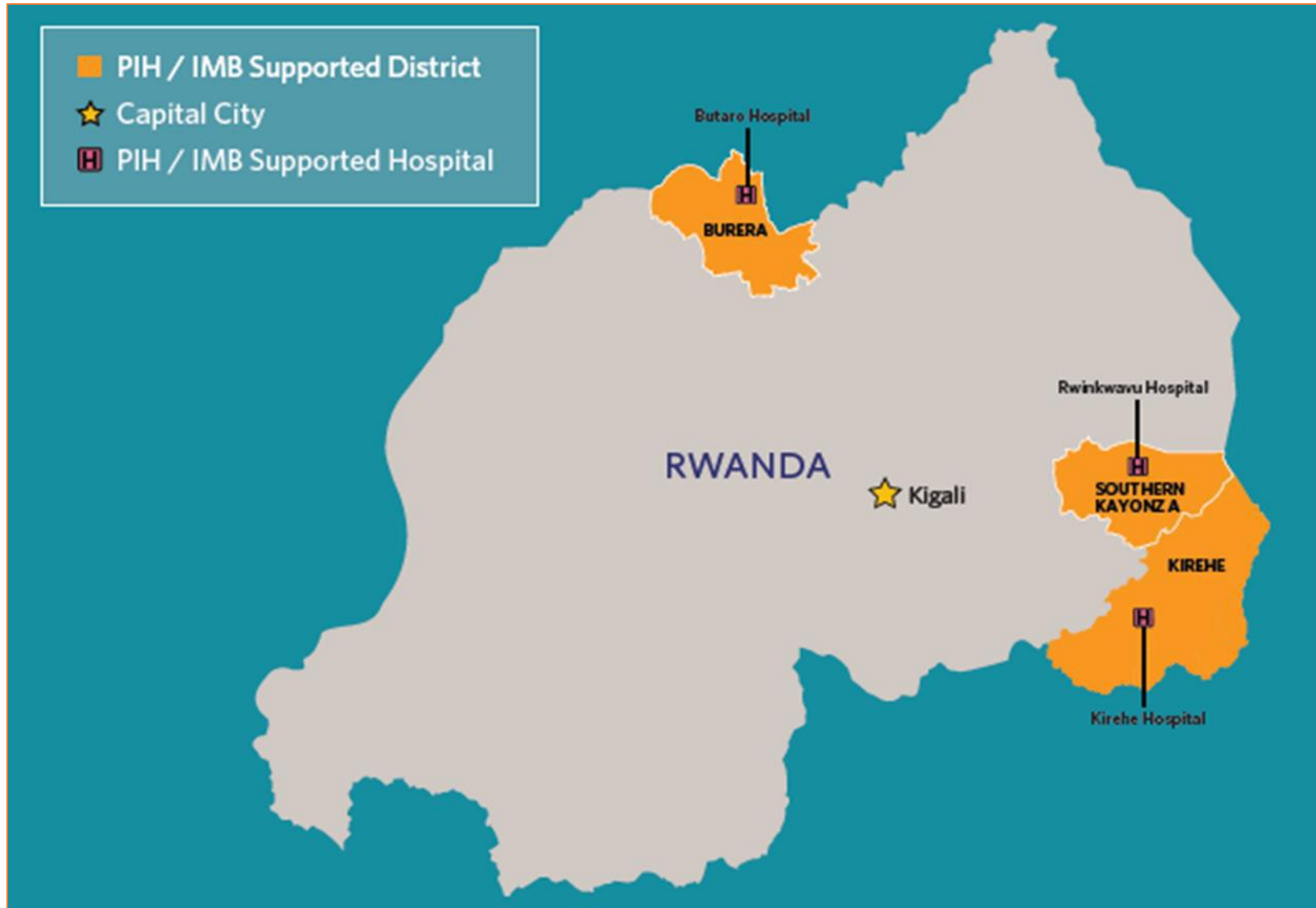
# Achieving the Right to Health for all Rwandans

- The Government of Rwanda is investing multi-sectoral efforts towards achieving the right to health for all through the progressive realization of UHC.
- There is a clear equity focus, prioritizing the needs of the most vulnerable populations through specific interventions addressing the social determinants of health, especially among the two lowest two wealth quintiles.

# Achieving the Right to Health for all Rwandans (Cont'd)

- Key components of the success of equitable progress toward UHC in Rwanda:
  - Strong leadership and governance in the health sector
  - Unwavering political commitment
  - A decentralized and strong network of health facilities in all districts
  - Community participation
  - The use of home grown solutions – like Ubudehe (wealth quintiles categories) – to include all people
  - Leveraging vertical program funding to strengthen the health system

# PIH's Partnership Approach to HSS



Total district approach with a focus of setting new standards and innovations including in the areas of neonatology, oncology, maternal health, NCDs, mental health, pediatrics, education, quality improvement, and research.

# PIH's APPROACH TO HEALTH SYSTEMS STRENGTHENING: THE 5 S's

## **STAFF:**

Well-trained, qualified staff in sufficient quantity to respond to need

## **STUFF:**

Ensuring the tools and resources needed for care delivery and administration

## **SPACE:**

Safe, appropriate spaces with capacity to serve need

## **SYSTEMS:**

Leadership and governance, information, financing

## **SOCIAL SUPPORT:**

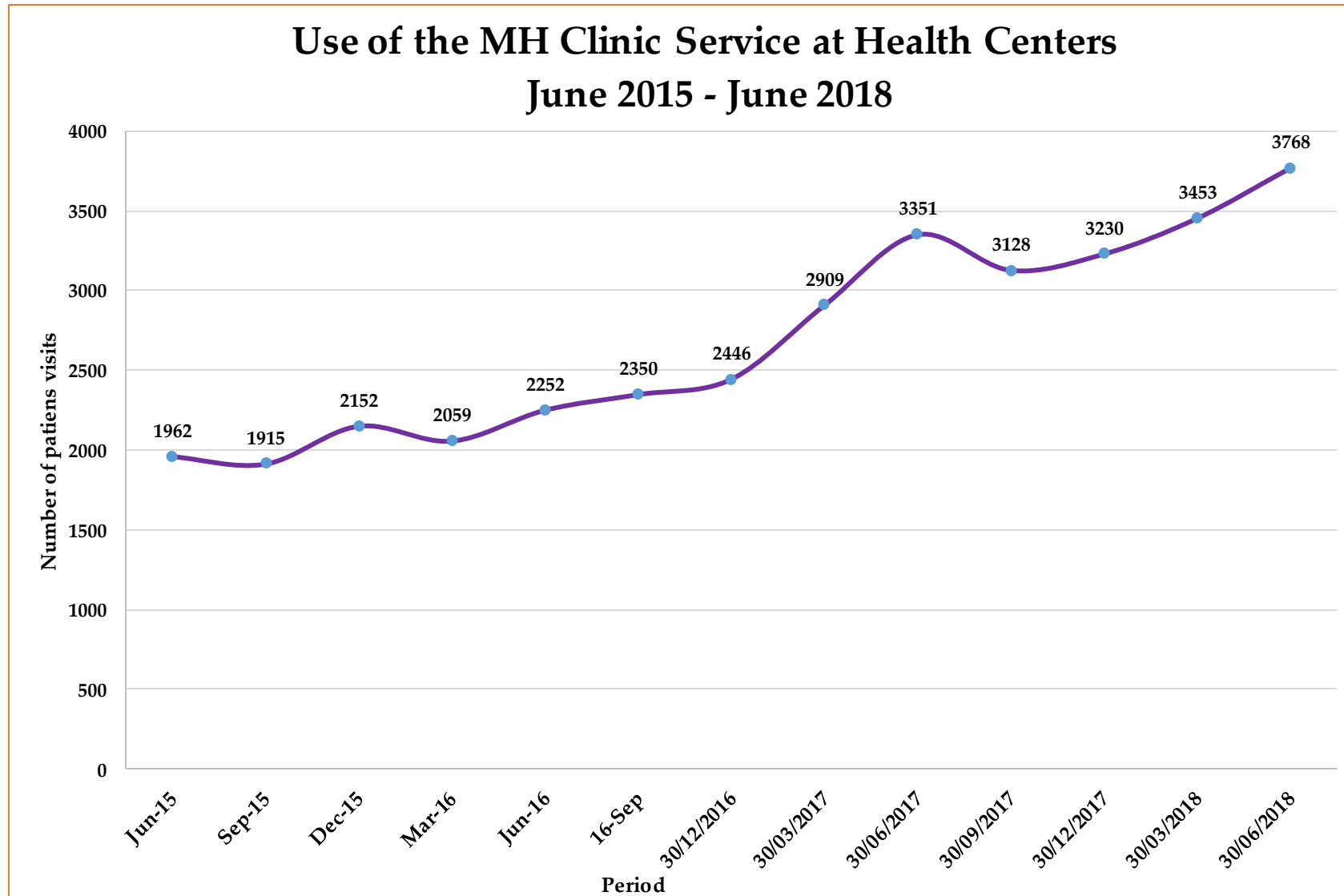
Providing basic necessities and resources needed to ensure effective care

# PIH's Equity Approach to HSS



PIH works at community, health post, health center, hospital, district, and national levels.

# Mental Health Program



# Mental Health Program (Cont'd)

**TABLE 3** Total number of mental health visits per facility type by month, Burera District, Rwanda, October 2014–March 2015

Health facility	October 2014 <i>n</i> (%)	November 2014 <i>n</i> (%)	December 2014 <i>n</i> (%)	January 2015 <i>n</i> (%)	February 2015 <i>n</i> (%)	March 2015 <i>n</i> (%)	Total visits <i>n</i> (%)
Butaro District hospital	19 (6.1)	47 (18.1)	57 (16.5)	46 (12)	12 (3.9)	46 (13.3)	227 (11.7)
Health centres	290 (93.9)	212 (81.9)	288 (83.5)	324 (88)	292 (96.1)	301 (86.7)	1707 (88.3)
Total	309	259	345	370	304	347	1934

**TABLE 4** Retention rates by health facility type, Burera District, Rwanda, October 2014–March 2015

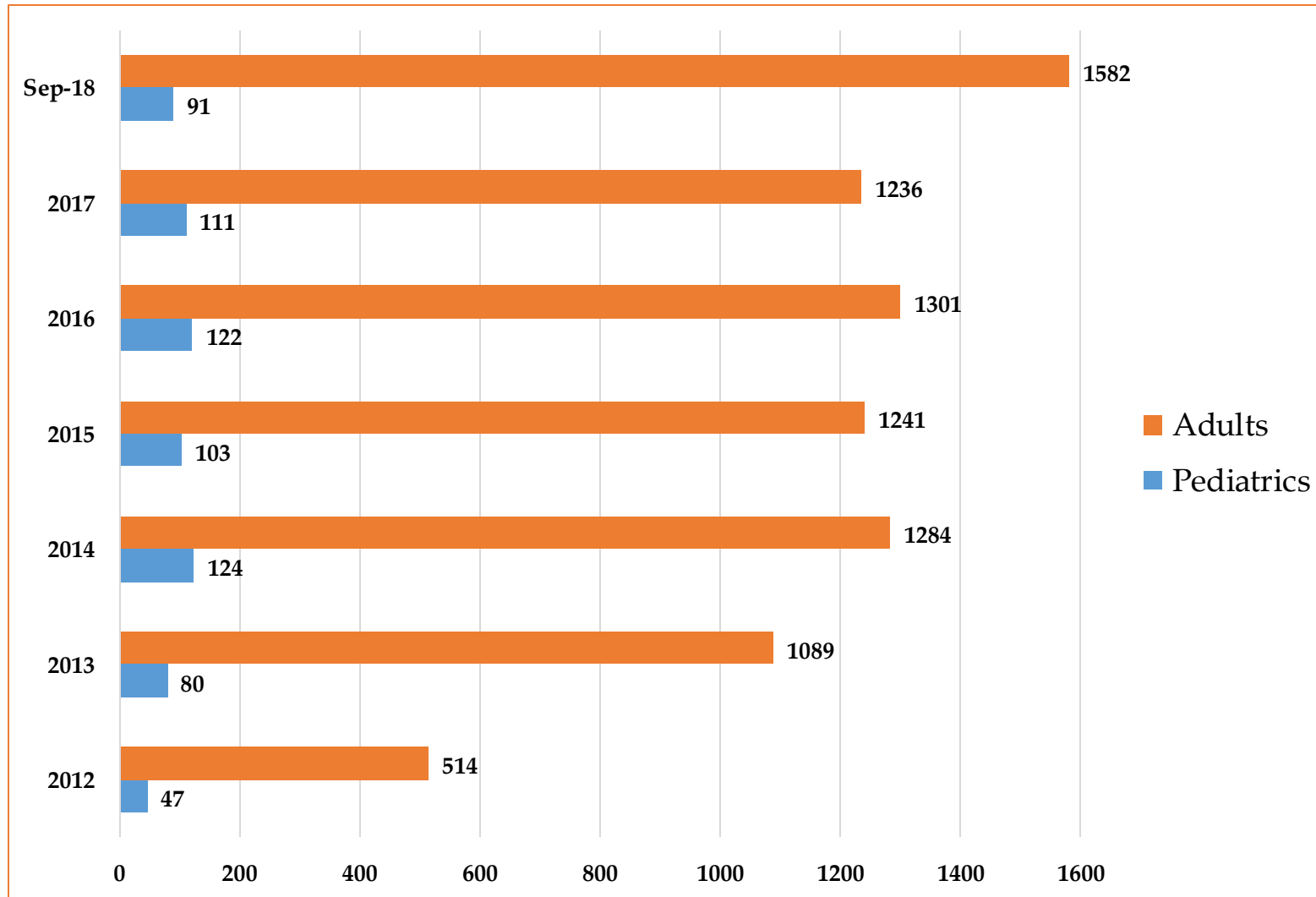
Visit	District hospital		Health centres		Total overall*	
	<i>n</i>	% retention ( <i>n</i> / <i>N</i> )	<i>n</i>	% retention ( <i>n</i> / <i>N</i> )	<i>n</i>	% retention ( <i>n</i> / <i>N</i> )
First (initial) visit	102		607		709	
Second visit†	67	65.7 (67/102)	412	67.9 (412/607)	479	67.5 (479/709)
Third visit‡	47	70.1 (47/67)	317	76.9 (317/412)	364	76.0 (364/479)

\*  $P > 0.05$  when comparing all retention rates between the district hospital and health centres.

† Defined as occurring within 90 days of first visit.

‡ Defined as occurring within 90 days of second visit.

# Oncology Program



## Most prominent cancers in adults:

- Breast Cancer
- Cervical Cancer
- Head & Neck Cancer

## Most prominent cancers in children:

- Wilms' Tumor
- Acute Leukemia
- Hodgkin's Lymphoma

# Oncology Program (Cont'd)

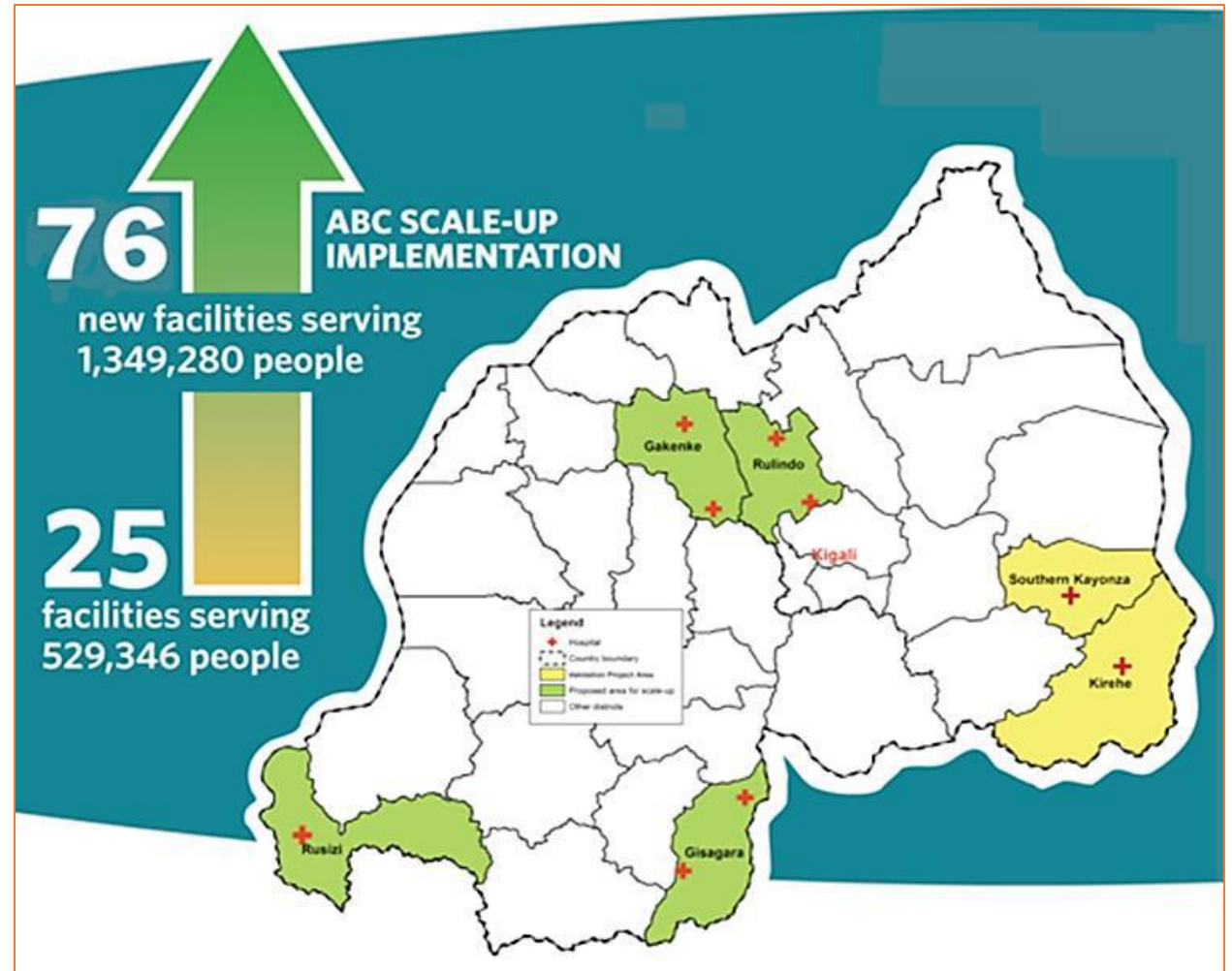


# Saving Lives At Birth

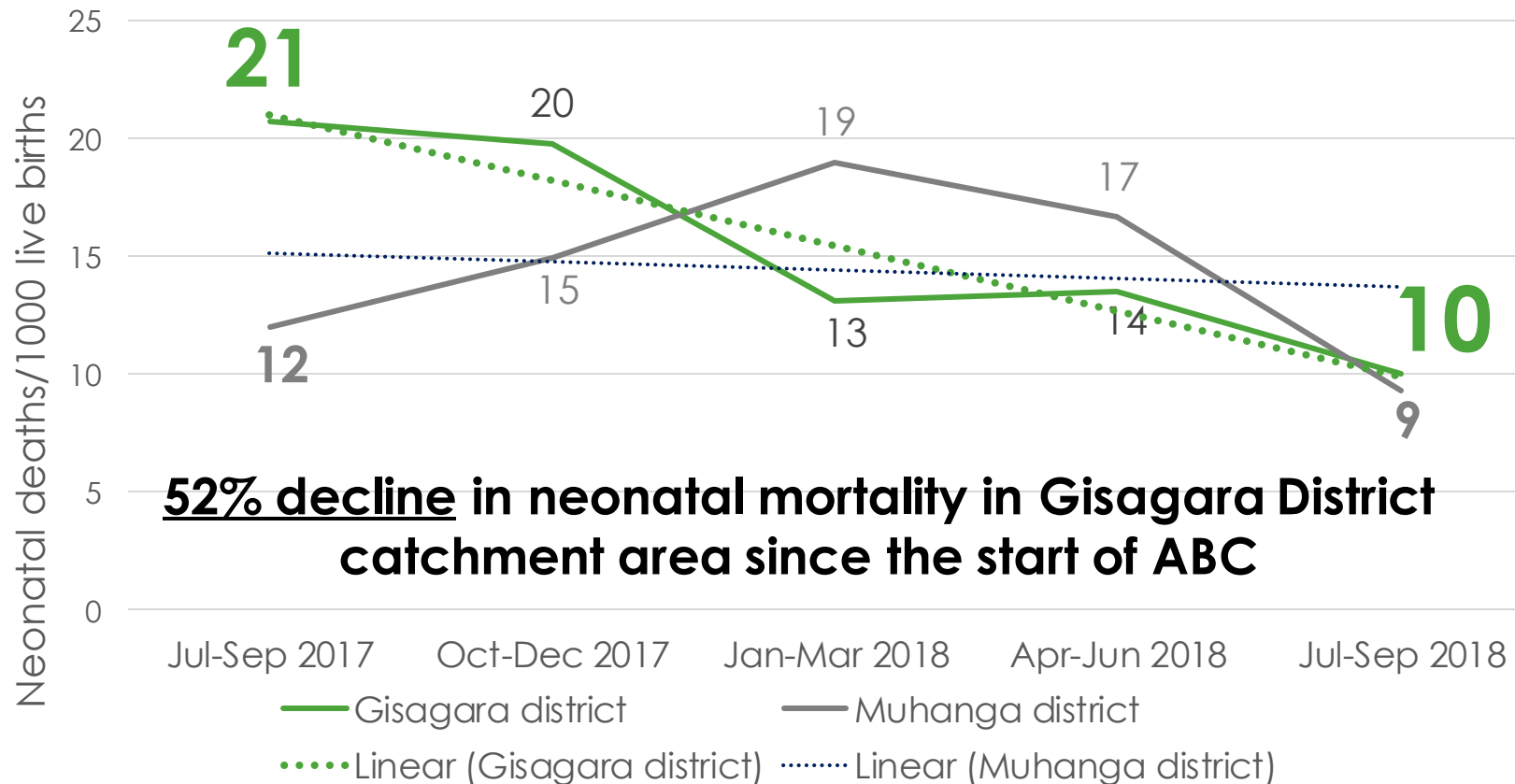
- 18 month intervention to accelerate reductions in neonatal mortality

through:

1. Clinical Training and Mentorship through full-time ABC mentor
2. Provision of Equipment and Supplies
3. Data-Driven Quality Improvement through Learning Sessions



# Saving Lives At Birth (Cont'd)



# Human resource for health (UGHE)



([www.ughe.org](http://www.ughe.org))

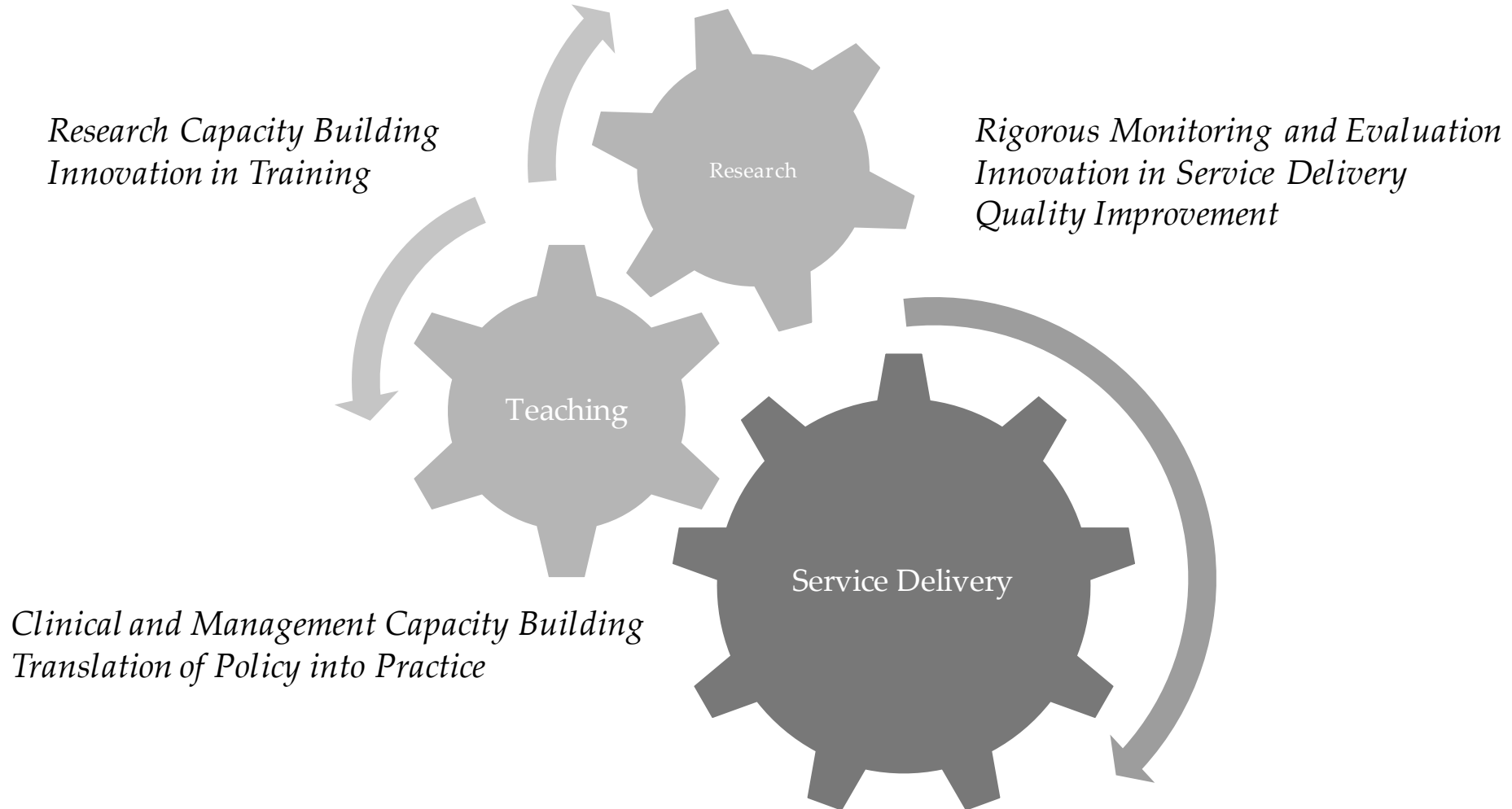
## **Programs:**

- Master of Science in Global Health Delivery
- Executive Education Programs

## **Upcoming Programs:**

- Medical School
- Nursing & Midwifery Center
- Non- Clinical Research Programs
- Health Management

# Partnership as a Virtuous Cycle



**Thank You**

Collaboration for a knowledge-based, equal  
and resource-efficient healthcare

# Knowledge-based Management

Mats Bojestig, Chair of the National Steering Group, [mats.bojestig@rjl.se](mailto:mats.bojestig@rjl.se)

Marie Lawrence, National Coordinator, SALAR, [marie.lawrence@skl.se](mailto:marie.lawrence@skl.se)

National system for knowledge-based  
management within healthcare

---

**SWEDEN'S REGIONS IN COLLABORATION**

# Sweden

- **Area:** 528,447 sq. km, third largest country in Western Europe
- **Population:** 10,2 million
- **Form of government:** constitutional monarchy, parliamentary democracy
- **Life expectancy:** women 84,1 years, men 80,7 years
- **Cost for healthcare:** Approximately 11% of GDP



National system for knowledge-based  
management within healthcare

---

**SWEDEN'S REGIONS IN COLLABORATION**

# Decentralised healthcare

**Public funded** system with shared responsibility between national government and local authorities

## **National level**

Legislation, monitoring and education/training

## **Regions (21)**

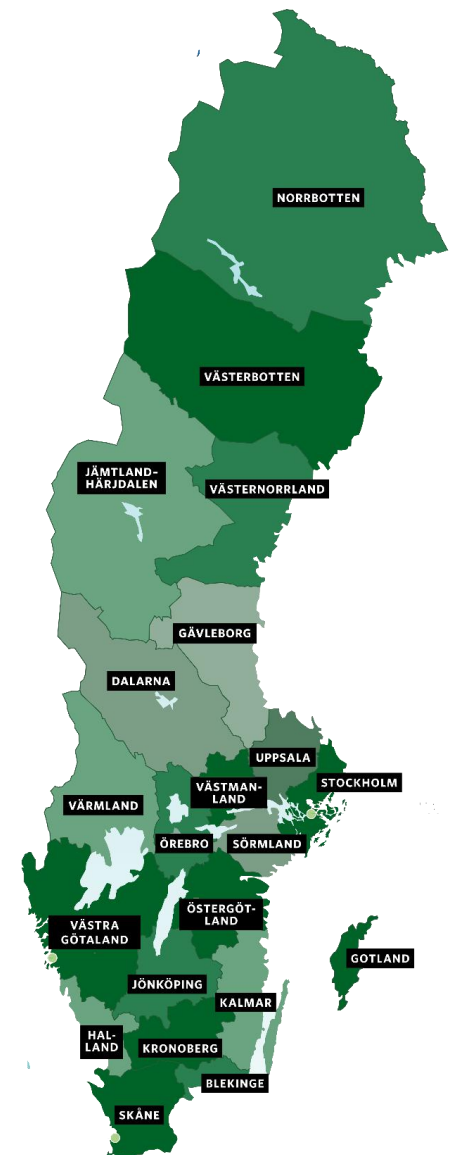
**Healthcare**, but also regional development and support to cultural activities and public transport

## **Municipalities (290)**

**Social services; care of elderly and disabled people**, schools and **school health care**, spatial planning and building, health and environmental protection, rescue services, order and security and lots more

## **Larger healthcare regions (6)**

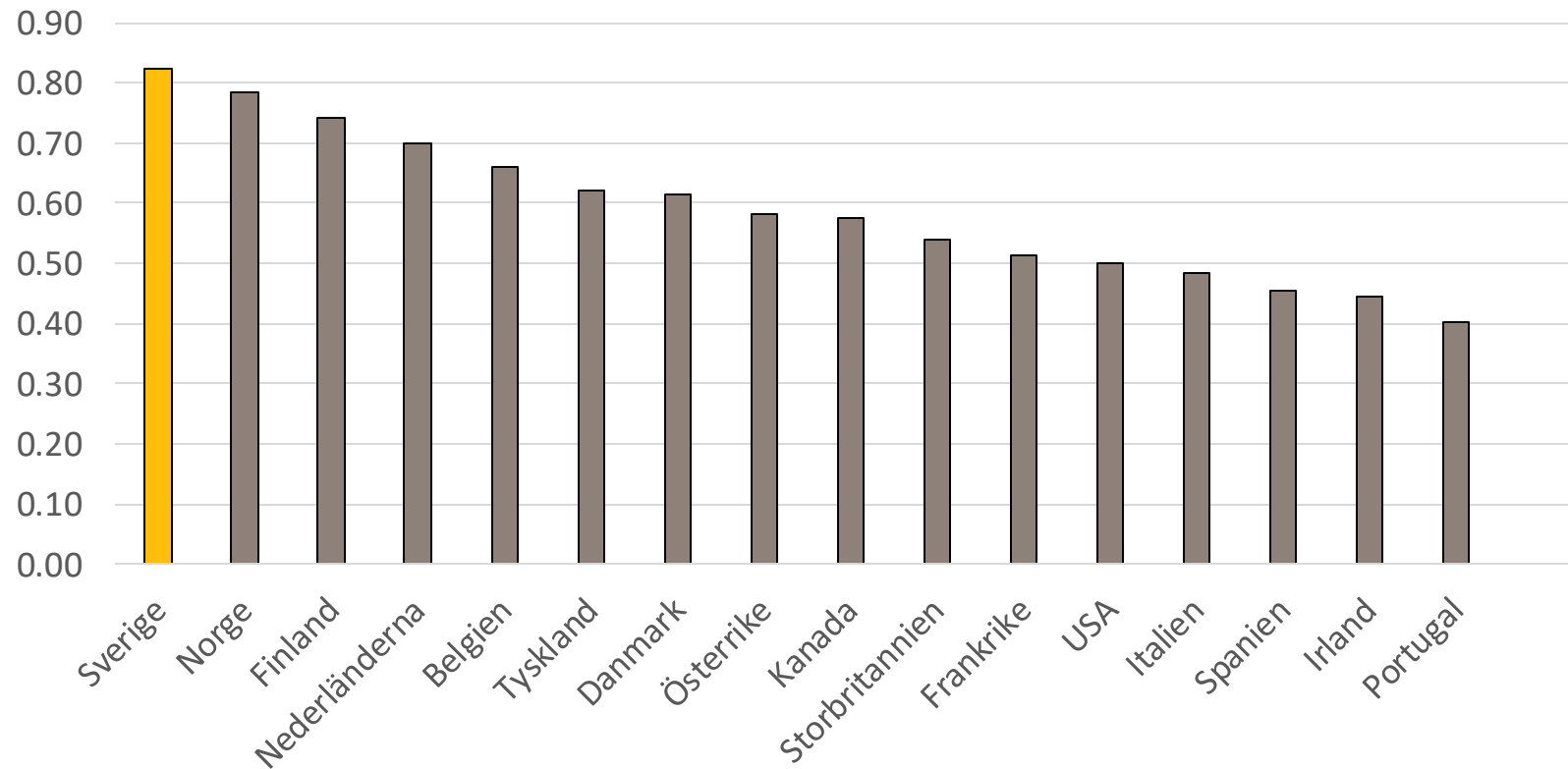
**Geographic partnership**, consolidate specialised care within the region and other collaborations



National system for knowledge-based management within healthcare

**SWEDEN'S REGIONS IN COLLABORATION**

# Quality index

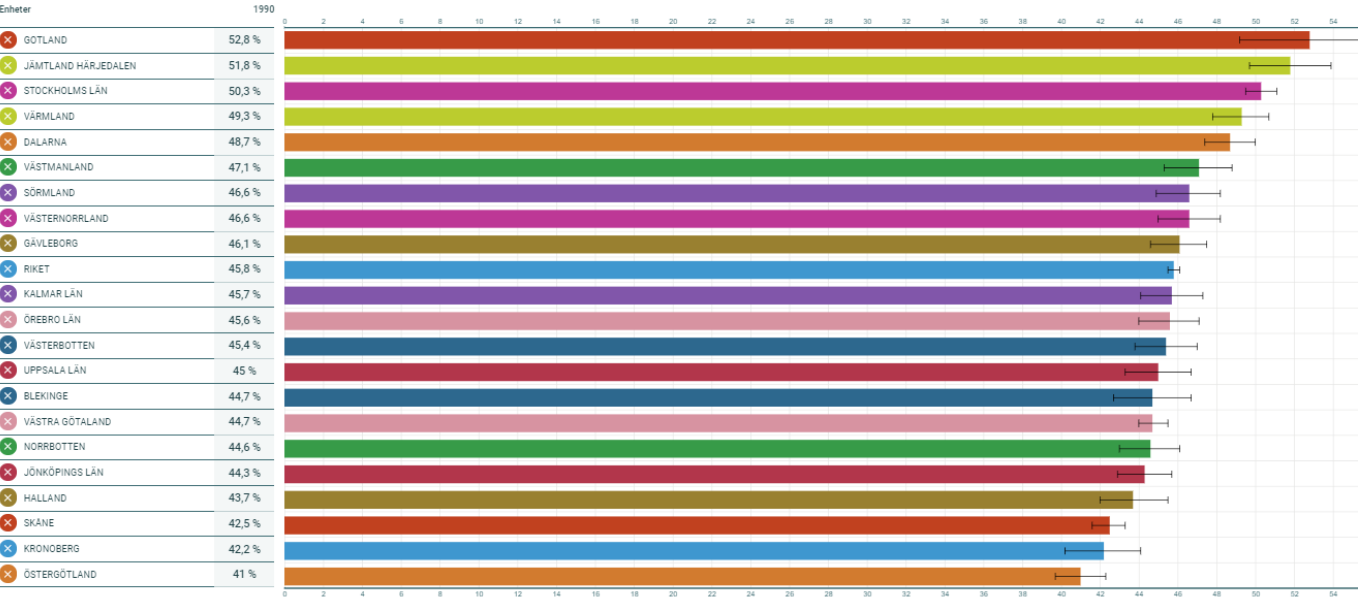


Source: "Swedish health care in international comparison 2018" (Svensk sjukvård i internationell jämförelse 2018)

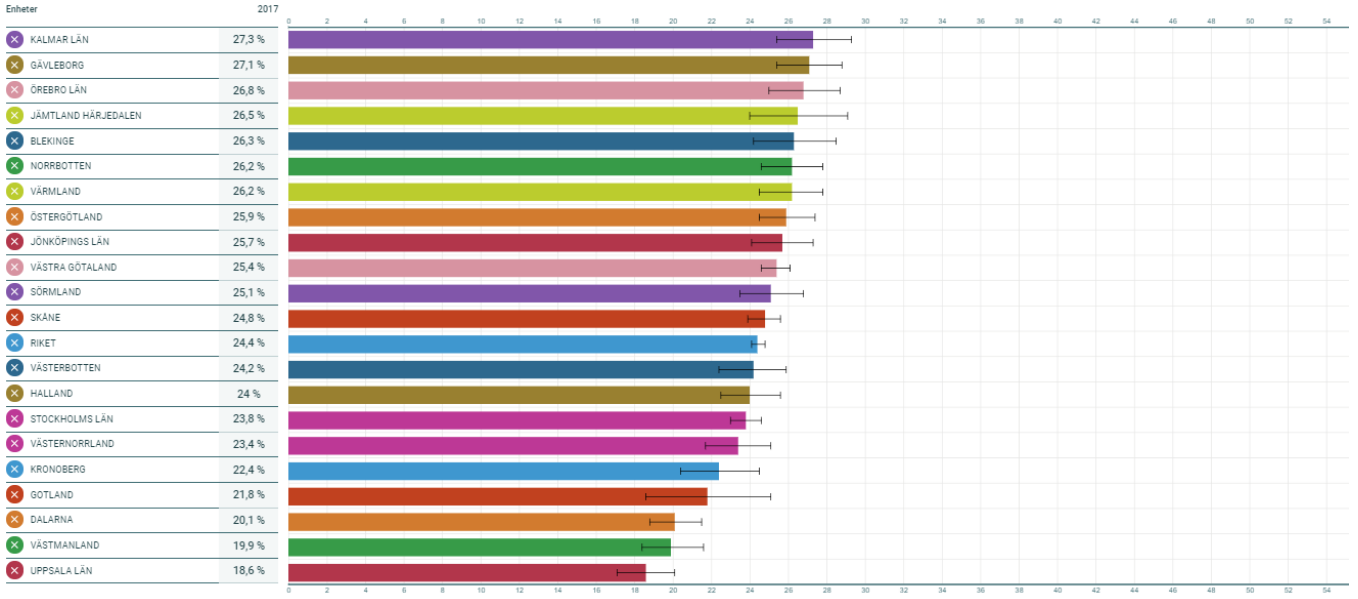
National system for knowledge-based  
management within healthcare

**SWEDEN'S REGIONS IN COLLABORATION**

1990



2017



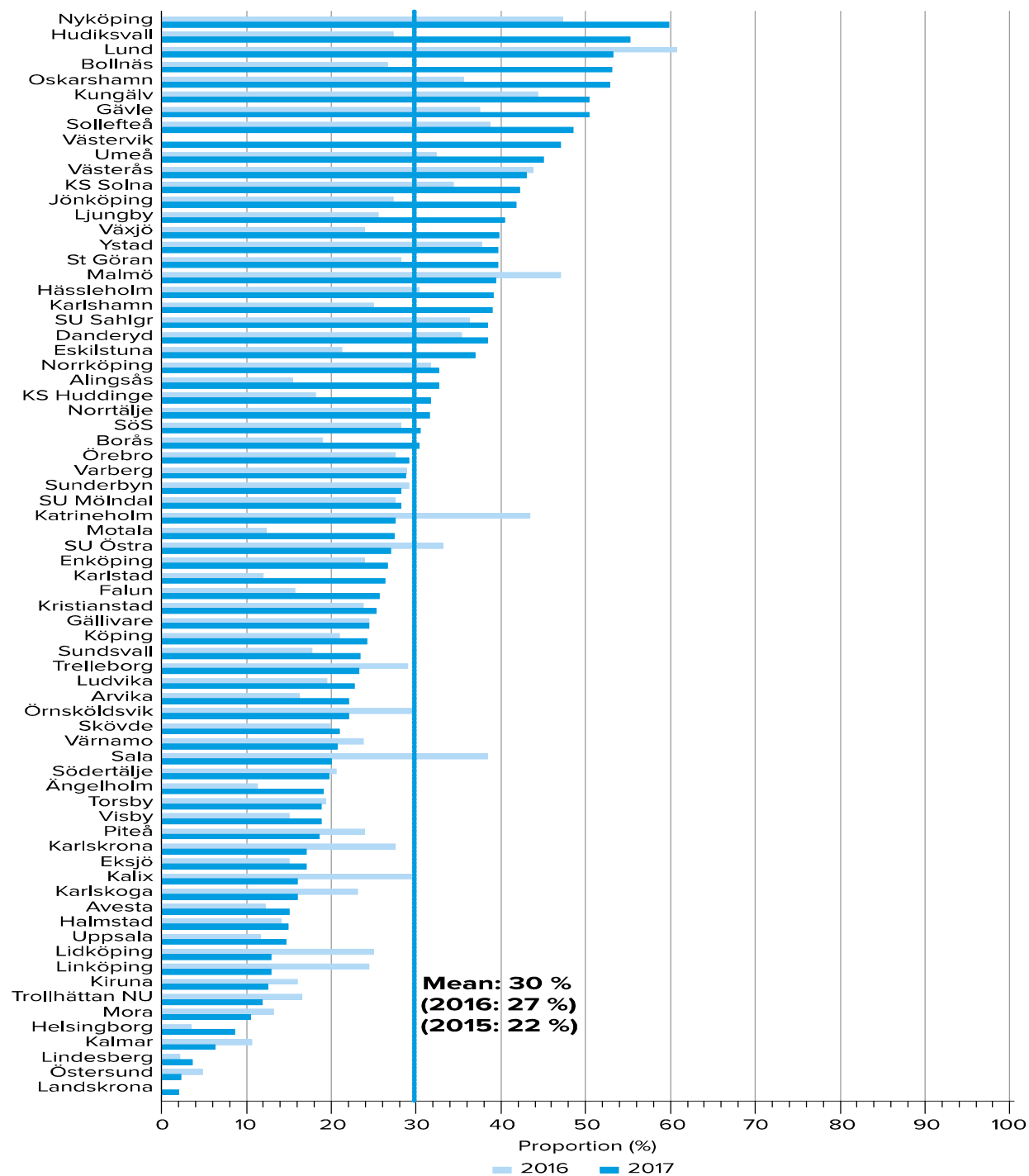
28-day case fatality  
(% deaths within 28 days) –  
AMI/heart attack

Sweden’s 21 health care  
regions, 1990 and 2017

Age & sex standardised

National system for knowledge-based  
management within healthcare

**SWEDEN’S REGIONS IN COLLABORATION**



Proportion of patients reaching 4 out of 4 prevention goals (Q4):

- Systolic blood pressure < 140 mmHg
- LDL-cholesterol <1.8 mmol/L ( $\geq 50\%$  reduction from baseline, or apoB < 0.8 g/L)
- No daily smoking
- Participation in a physical exercise program at the 2nd follow-up)

National system for knowledge-based management within healthcare

**SWEDEN'S REGIONS IN COLLABORATION**

# History of healthcare development and improvement

- Long tradition of open comparison
  - Healthcare in numbers ([www.vardenissiffor.se](http://www.vardenissiffor.se))
- National quality registries (about 100)
  - Driven by professions
- National guidelines – government agency
- National improvement efforts
  - [National cancer strategy](#)
  - [Managed introduction of new drug therapies](#)
- Cardiovascular diseases as a case

## Posters

“Health care in numbers” ([vardenissiffor.se](http://vardenissiffor.se))  
Makes it possible for caregivers to benchmark and evaluate their results.

Video: [Healthcare in Numbers: Supporting quality improvement](#)

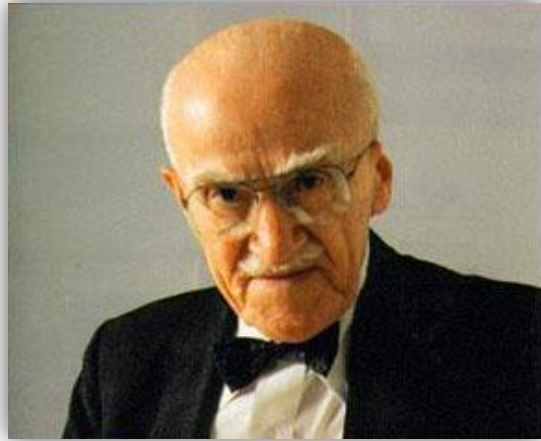
“National Clinical Knowledge Support”  
To provide the best possible knowledge in every care contact

National system for knowledge-based management within healthcare

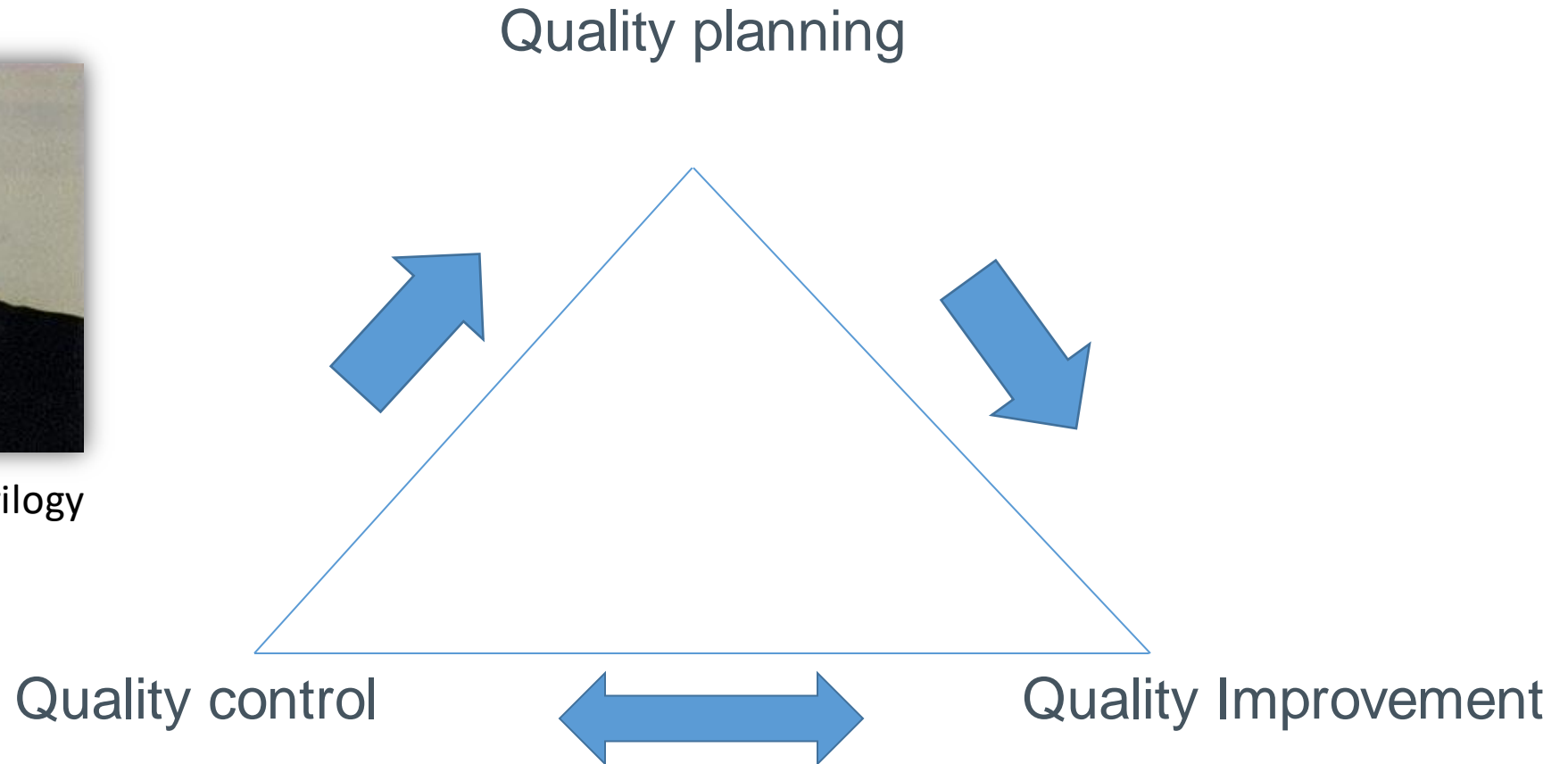
---

**SWEDEN'S REGIONS IN COLLABORATION**

# From projects to solid structures for change



Dr. Joseph M. Juran's Trilogy



National system for knowledge-based  
management within healthcare

**SWEDEN'S REGIONS IN COLLABORATION**

We count our success  
in lives  
and equal health

We make  
each other successful!



National system for knowledge-based  
management within healthcare

---

**SWEDEN'S REGIONS IN COLLABORATION**

# Knowledge-based management in practice

- We **use** the best available **knowledge**
- The meeting **is followed up and analysed**
- **New knowledge** is put into practice quickly
- Identify **areas for improvement** with the patient

Support patients and care givers to work knowledge-based

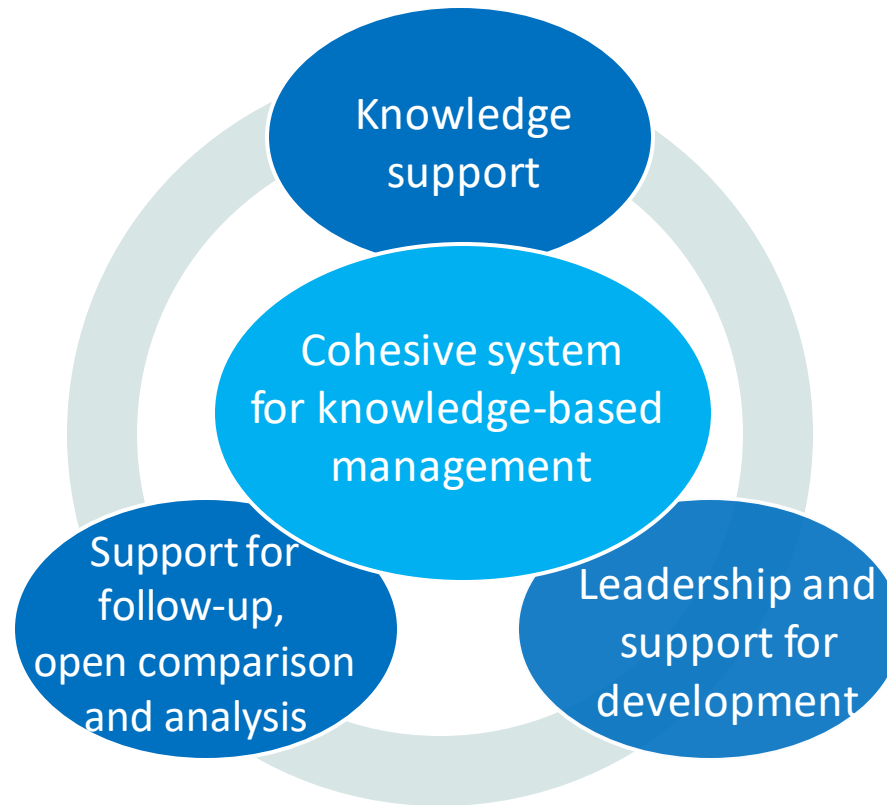


The patient as co-creator

National system for knowledge-based management within healthcare

**SWEDEN'S REGIONS IN COLLABORATION**

# A learning system

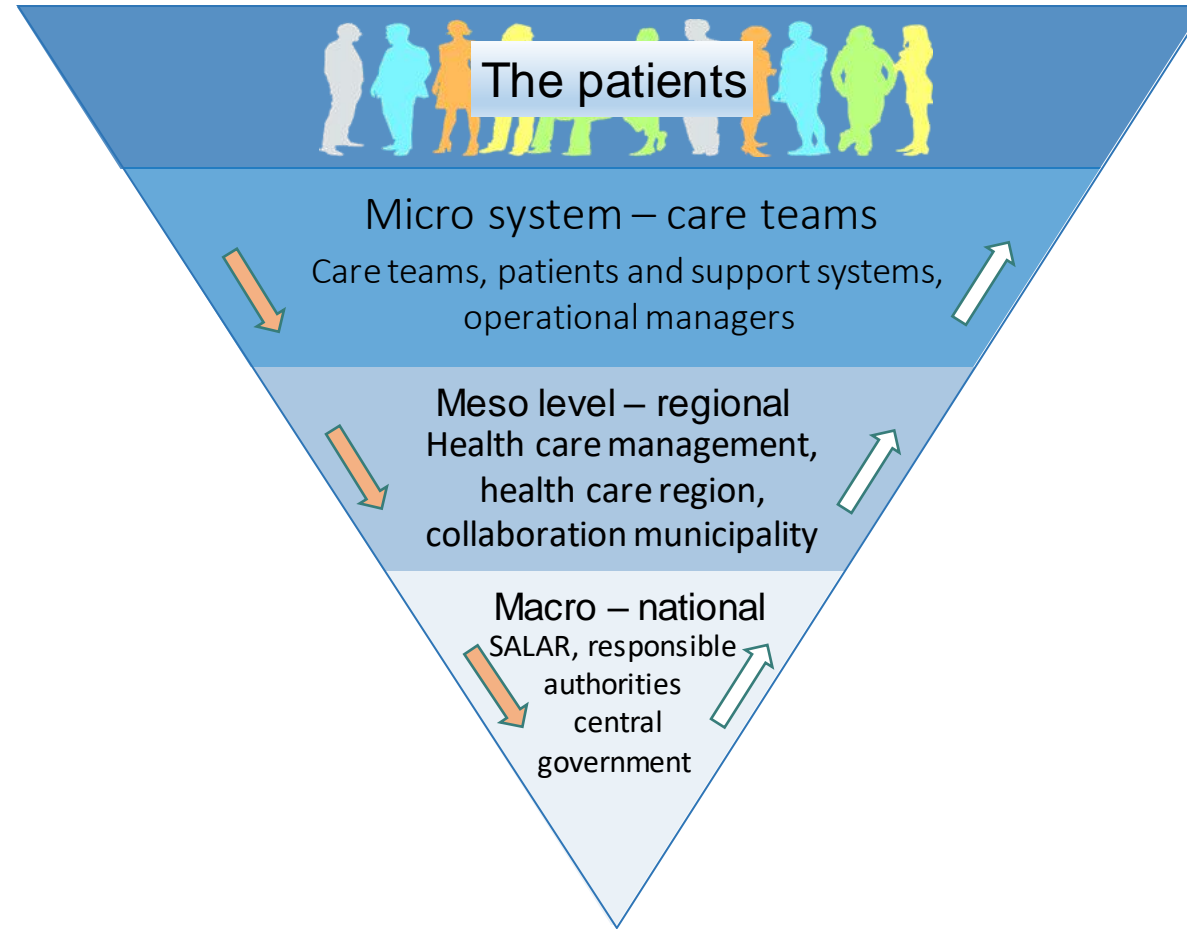


National system for knowledge-based  
management within healthcare

---

**SWEDEN'S REGIONS IN COLLABORATION**

# Collaboration for knowledge-based management



National system for knowledge-based  
management within healthcare

**SWEDEN'S REGIONS IN COLLABORATION**

# 24 national program groups working in collaboration

## **National program areas – transversal**

- Emergency healthcare
- Elderly's health
- Living habits
- Medical diagnostics
- National council for primary care
- Rehabilitation, habilitation and insurance medicine
- Paediatric health

## **National program areas – diagnosis**

- Cancer diseases
- Cardiovascular diseases
- Dental care
- Eye diseases
- Infectious diseases
- Diseases of the ears, nose and mouth
- Diseases of the movement organs
- Diseases of the nervous system
- Endocrine diseases
- Gastrointestinal diseases
- Gynaecological diseases, pregnancy and childbirth
- Lung and allergy diseases
- Mental health
- Rare diseases
- Renal and urologic diseases
- Skin diseases and sexually transmitted diseases

National system for knowledge-based  
management within healthcare

---

**SWEDEN'S REGIONS IN COLLABORATION**

# 7 national groups working in collaboration

## National collaboration groups

- Methods for knowledge support
- National quality registers
- Follow-up and analysis
- Pharmaceuticals/MedTech
- Research/Life Science
- Patient safety
- Structured healthcare data



National system for knowledge-based  
management within healthcare

---

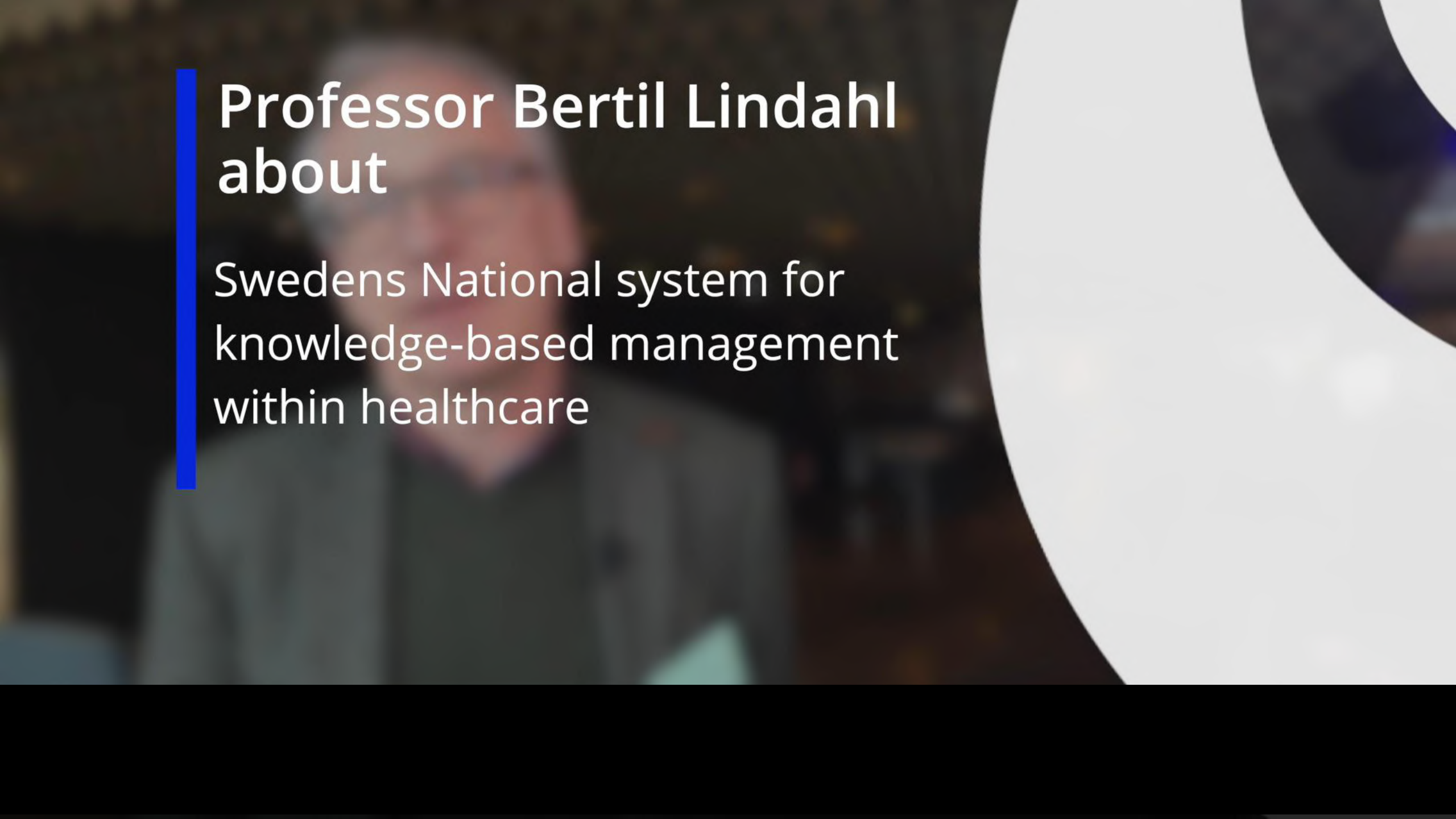
**SWEDEN'S REGIONS IN COLLABORATION**



National system for knowledge-based  
management within healthcare

---

**SWEDEN'S REGIONS IN COLLABORATION**

A blurred background image of Professor Bertil Lindahl, a man with grey hair and a beard, wearing a dark suit and tie. The image is out of focus, with the text overlaid on the left side. A large white circular shape is visible on the right side of the image.

# Professor Bertil Lindahl about

Swedens National system for  
knowledge-based management  
within healthcare

The value is created  
together with  
the patients



We count our success  
in lives  
and equal health

We make  
each other successful!

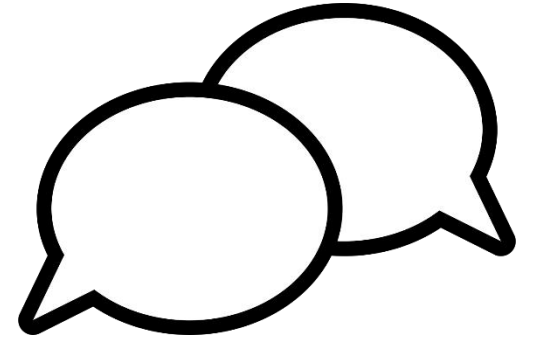


National system for knowledge-based  
management within healthcare

---

**SWEDEN'S REGIONS IN COLLABORATION**

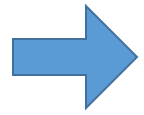
**Discuss with your neighbor!**



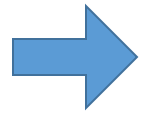
What are the similarities between the two national approaches?

What's the key factors for success in a whole system approach?

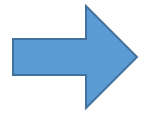
# Take home knowledge



How to build a structure for successful implementation



How to move from local to national improvement



How to collaborate in order to satisfy shared goals and strategies