

Improving maternal and newborn survival: opportunities and challenges in sub-Saharan Africa



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Godfrey Mbaruku - an early hero of modern maternal health

The Lancet Vol 375 June 5, 2010

In 1988, he was sent to Kigoma, in the remote west of Tanzania, to be the only maternal specialist for a population of 1.2 million people. It was to be the start of a fascinating two decades in Mbaruku's career.

"At the beginning, I saw this posting as a punishment", recalls Mbaruku, currently Deputy Director of Tanzania's Ifakara Health Institute. "But I changed my mind when I saw the positive changes that were possible."



1954-2018

The Lancet 1985

THE LANCET, JULY 13, 1985

83

Maternal Health

MATERNAL MORTALITY—A NEGLECTED TRAGEDY

Where is the M in MCH?

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INTRODUCTION

THE World Health Organisation (WHO) estimates that 500 000 women in developing countries die every year from complications of pregnancy, abortion attempts, and childbirth.¹ 100–300 maternal deaths per 100 000 births are common in the Third World, and rates are much higher in rural areas.² In contrast developed countries have only 7–15 maternal deaths per 100 000 live births. Morbidity rates are rarely available, but it is certain that for every woman who dies many more have serious, often long-term, complications. Most of the deaths are preventable, yet little is being done to reduce this source of unnecessary suffering and death. Although in recent years much attention has been given to

trend was to abandon such innovations and to build hospitals and medical centres in the capital cities, often with help from international donors.⁷ During the past 15 years, however, more attention has been paid to tailoring medical systems to the needs and resources of developing countries. A major expression of this reorientation is the increased interest in primary health care (PHC), which was adopted as a global strategy for health at the Alma Ata conference in 1978.⁸

PHC concentrates on preventive care and management of the infections and nutritional deficiencies among children so common and devastating in poor countries. Moreover, PHC relies on the use of available personnel, including auxiliary health workers, villagers, and traditional health practitioners, and the small force of highly trained personnel is reserved for complicated tasks. Such an approach is necessary since in many rural areas of the Third World there are about 100 000 people per physician, compared with 1000 or less in the West and in many capital cities of developing countries.⁹ This approach has even been adopted in developed countries, where various members of the health-care team have been given new responsibilities. There can be no doubt that the move away from Western medical models and towards PHC is a major improvement. However, there are some important health problems on which PHC (as currently defined) will have little impact. One of these is maternal mortality.

The Lancet 2016

THE LANCET

September, 2016

www.thelancet.com

Maternal Health



"This Series... suggests two fundamental issues that need to be addressed to improve maternal health: to ensure the quality of maternal health care for all women, and to guarantee access to care for those left behind or those who are most vulnerable."

A Series by The Lancet

Shifting policy and programme emphasis

TBA training/primary health care/district health systems

1987

- EmOC
- Three delays
- Skilled attendance
- Continuum of care
- Quality of care

~2017

- Intersectoral/Universal health coverage

Three messages:

1. Progress has been made but is fragile
2. The challenges are new ones and old ones
3. There are opportunities for accelerated progress

Progress has been made in reducing maternal deaths

- Between 1990 & 2015, maternal mortality decreased by 44 percent: from 385 per 100,000 live births to 216 per 100,000
- Tanzania is estimated to have achieved a 60% decline, to an MMR of 398 per 100,000 live births in 2015 (WHO et al, 2015)
- But..... MDG5 was not achieved



MILLENNIUM DEVELOPMENT GOAL 5A:

REDUCE MATERNAL DEATHS BY 3/4 BETWEEN 1990 AND 2015

Of the 95 countries with high levels of maternal mortality in 1990:

9 Countries Achieved MDG 5A

Another 39
countries also
made significant
progress



Bhutan

Cabo Verde

Cambodia

Iran

Lao People's
Democratic
Republic

Maldives

Mongolia

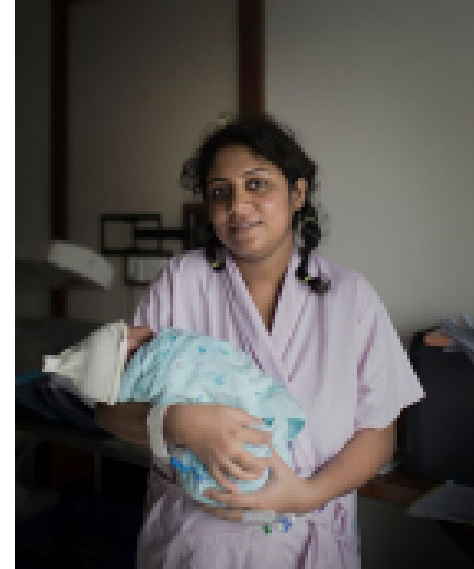
Rwanda

Timor-Leste

Pregnancy & childbirth is a BIG global issue

Staggering numbers ..each year...

- ~210 million pregnancies
 - ~140 million births
 - ~303,000 maternal deaths
 - ~27 million morbidity episodes
- from five key obstetric causes



WHERE IS IT MOST DANGEROUS TO HAVE A BABY?

IN FRAGILE SETTINGS

Countries experiencing crisis and conflict - where over 1/2 of all maternal deaths take place.

Lifetime risk of dying in pregnancy and childbirth:

Fragile settings

1 IN 54

Developed countries

1 IN 4900

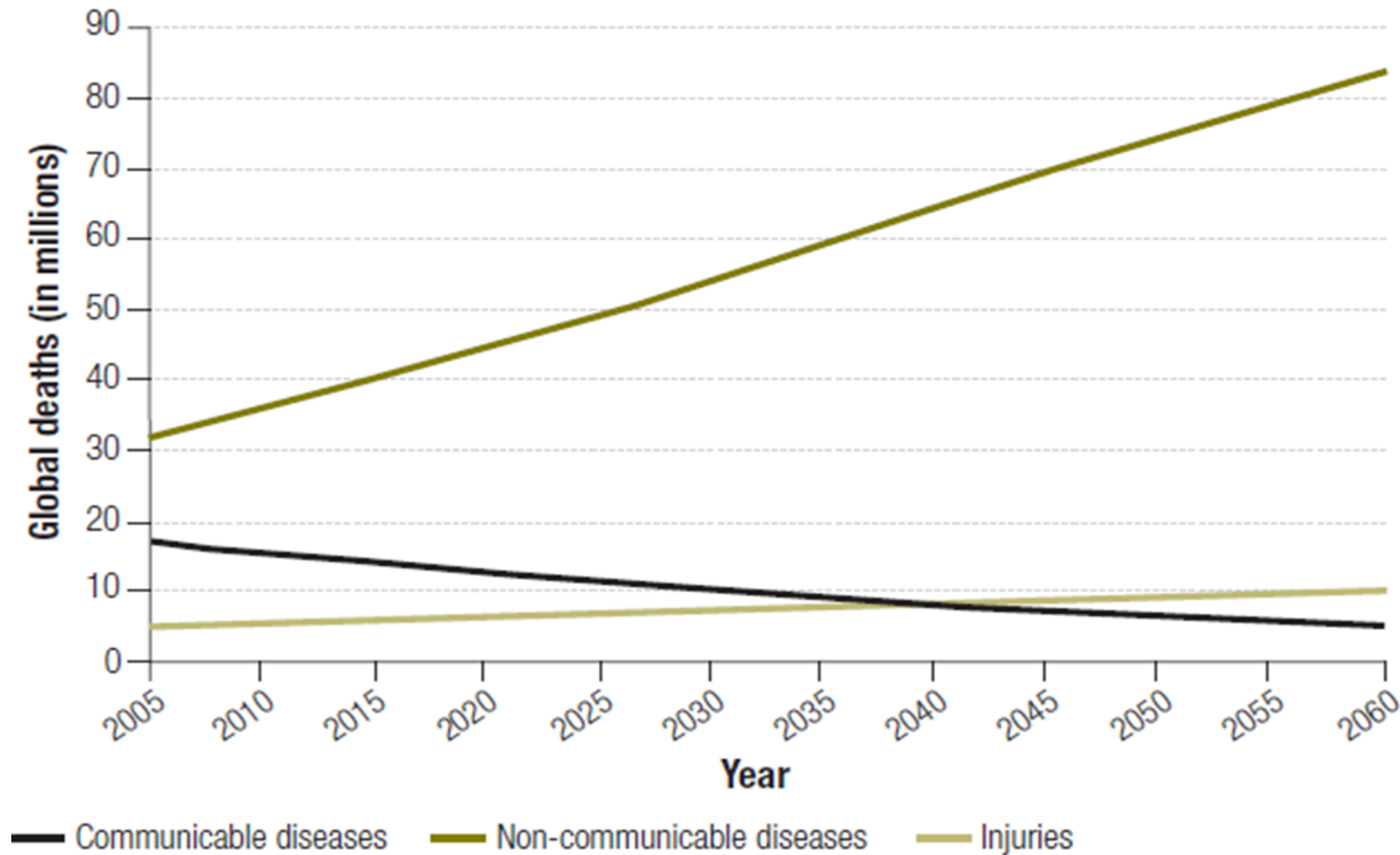


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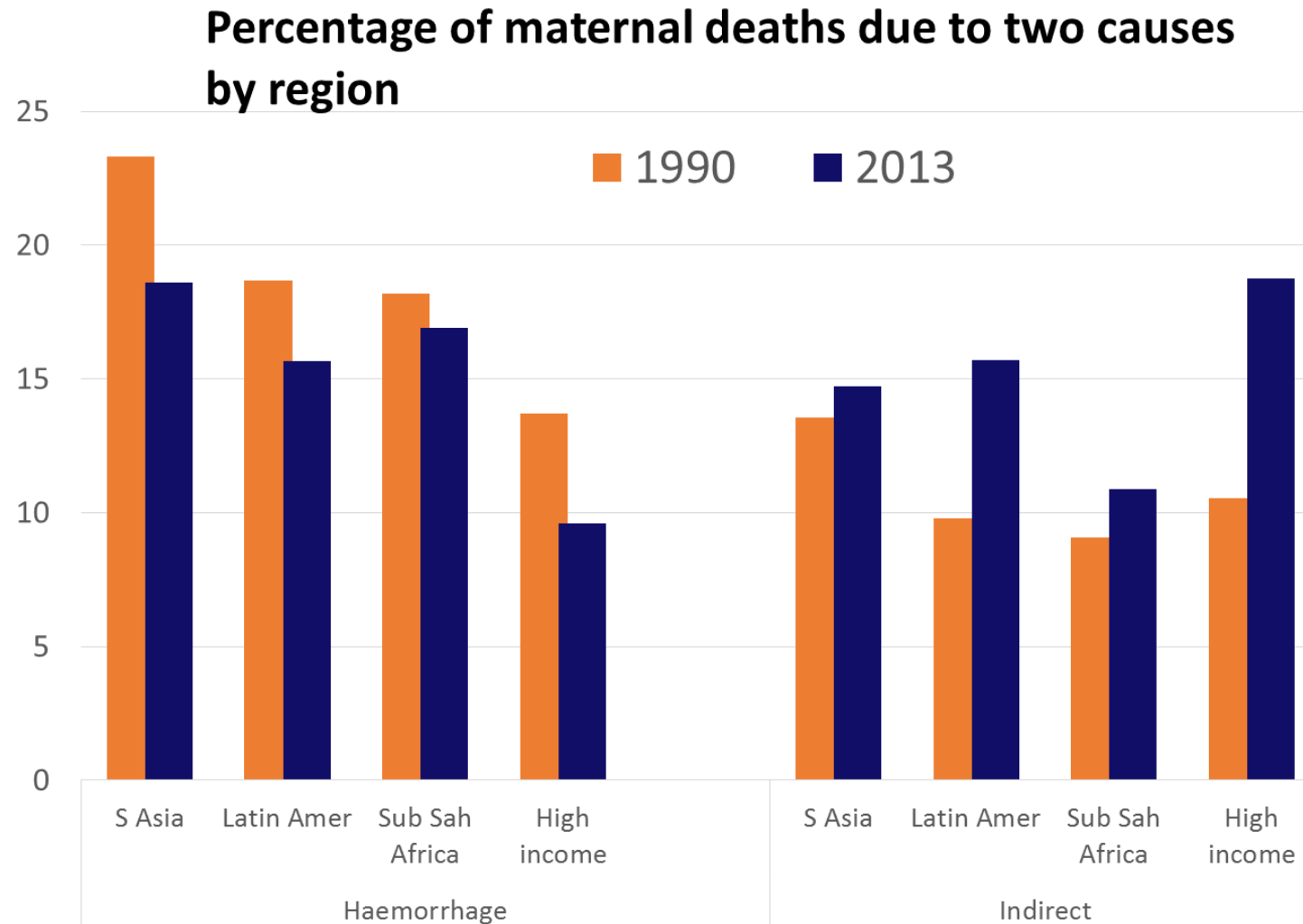
“New” challenge 1: the epidemiological transition

Fig. 4. Global deaths by major disease groups

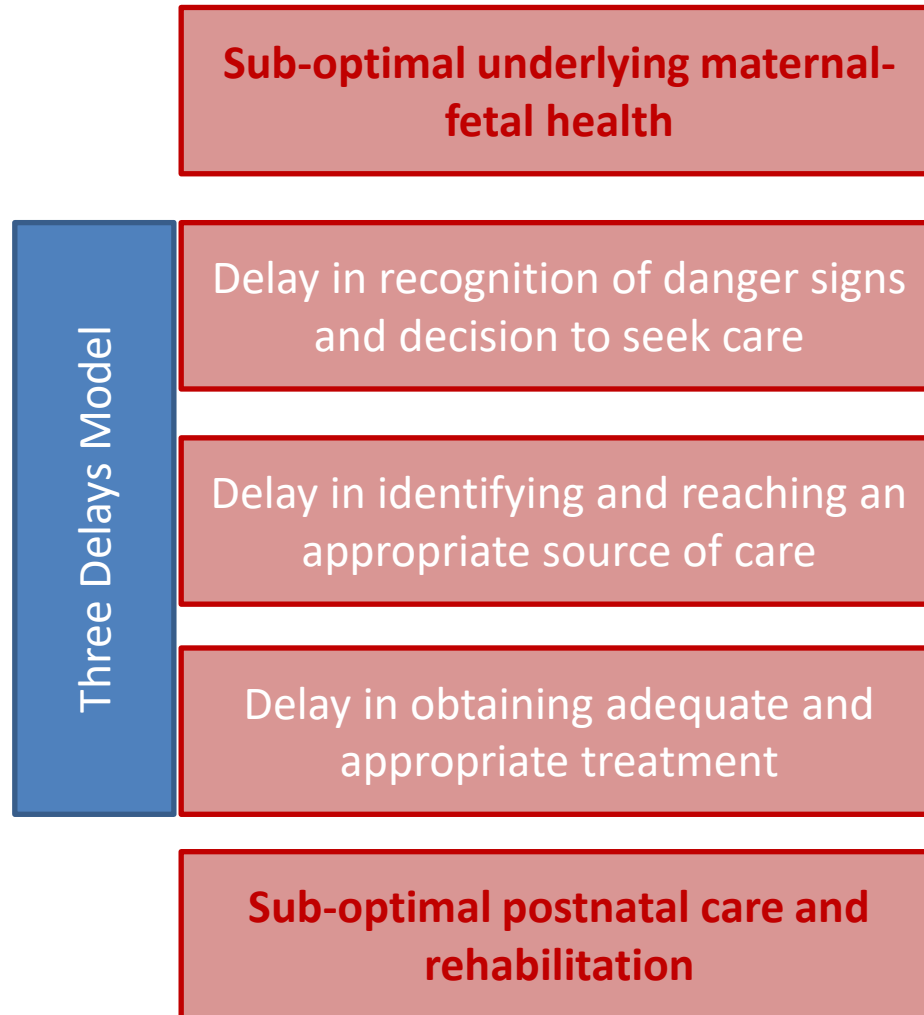


Source: International Futures version 6.32 base case forecast.

The obstetric transition

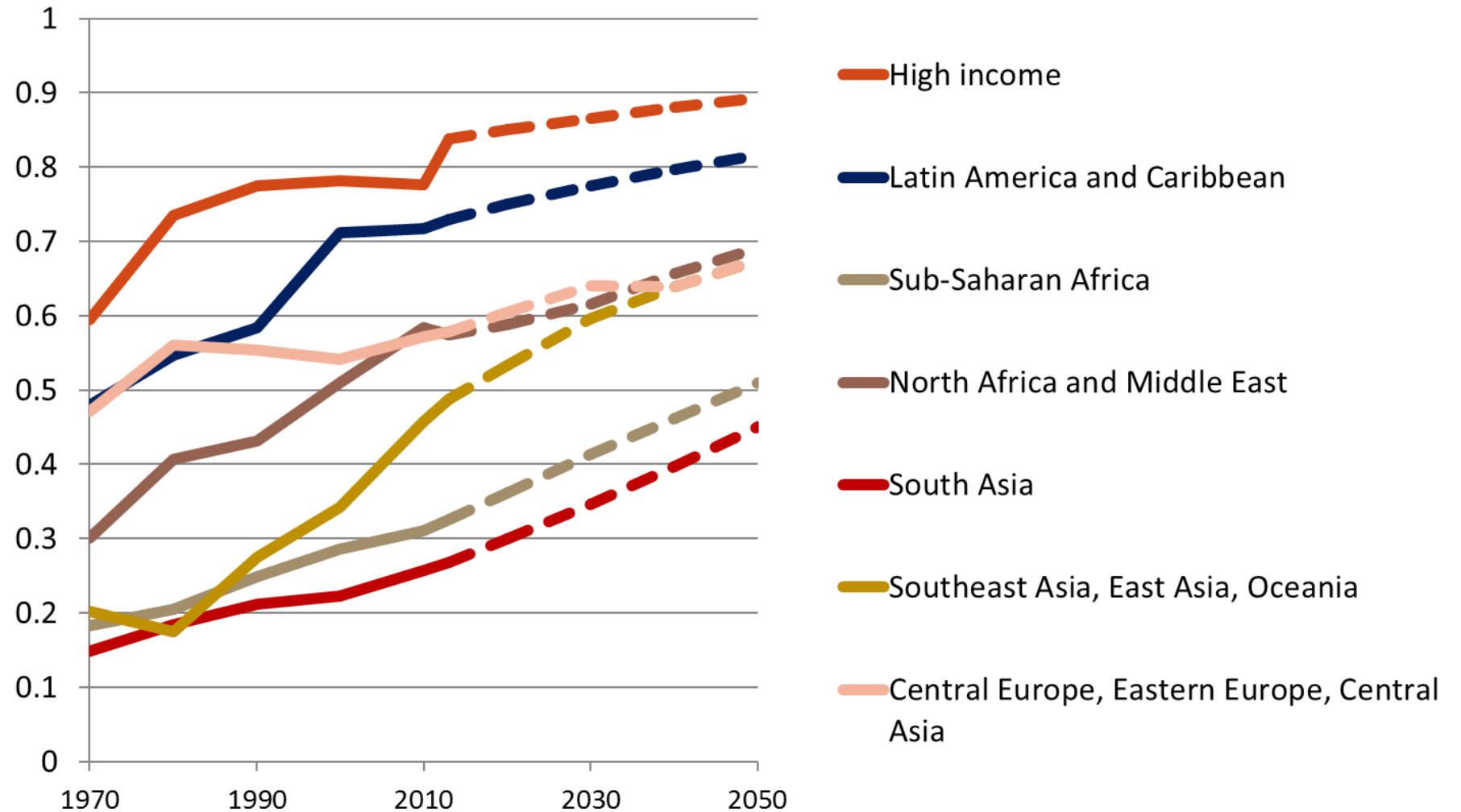


So why do mothers and babies die or have sub-optimal outcomes?



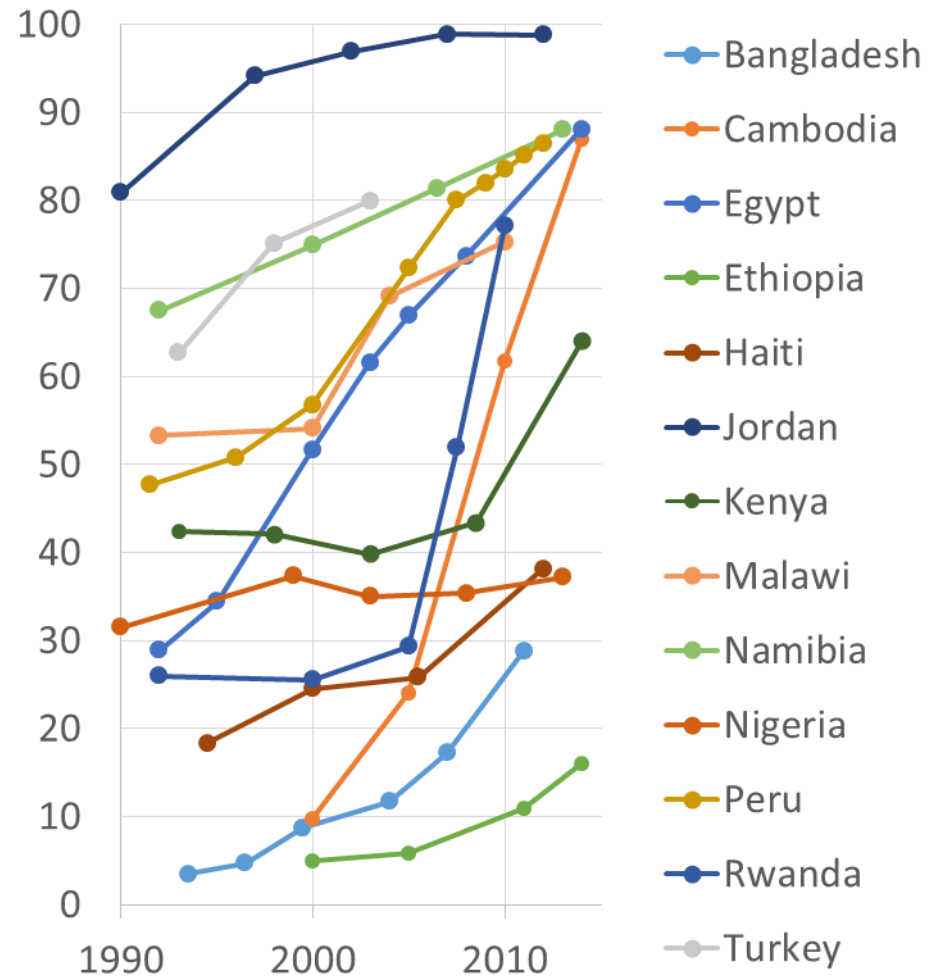
New challenge 2: Urbanization

Proportion of
births occurring
in urban areas
by region,
1970-2050



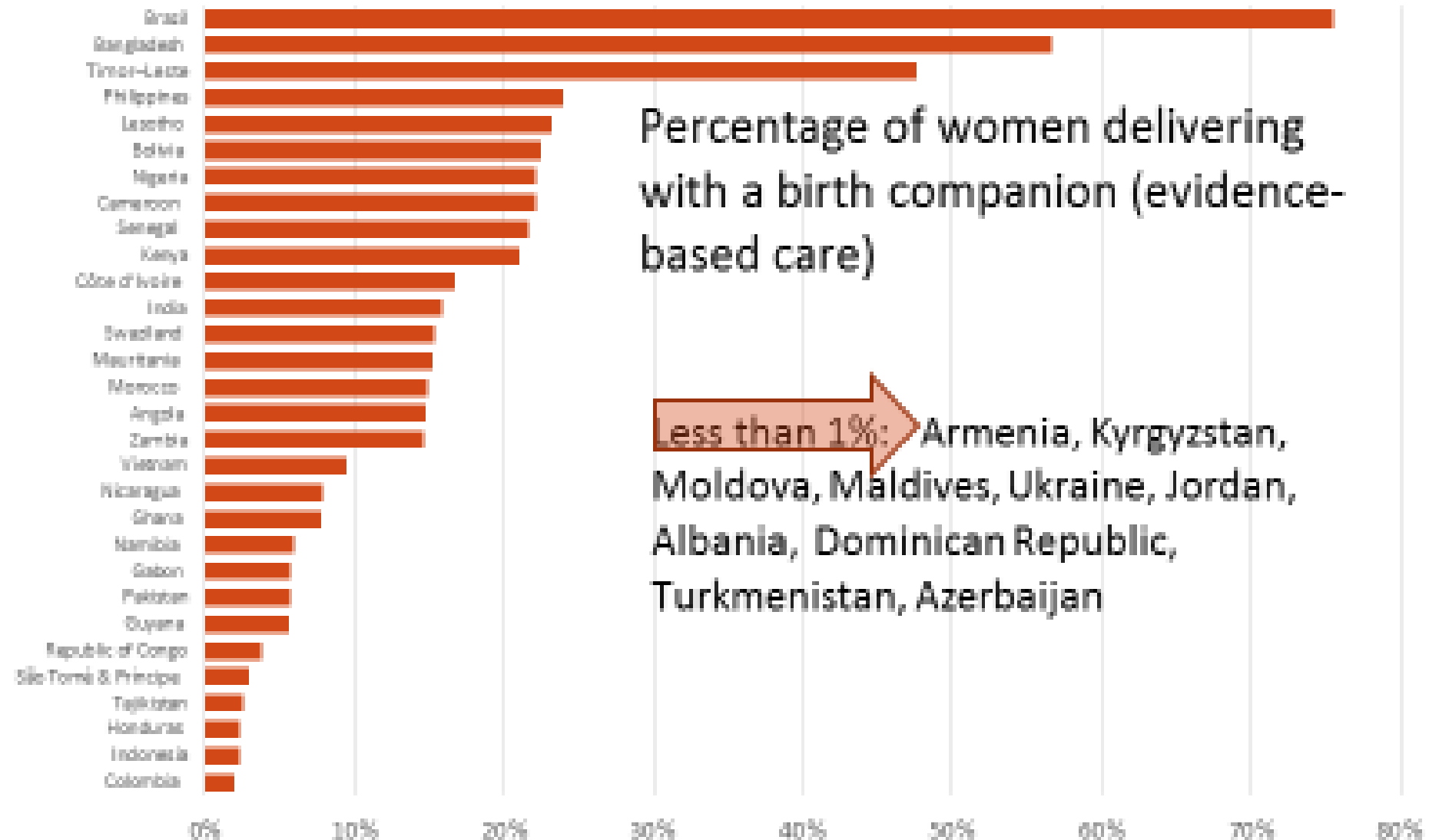
“New” challenge 3: institutional deliveries are increasing dramatically

- Three-quarters of women globally now deliver in institutions
- In Tanzania proportion is ~64% (?2018/ALMA/WHO) – with wide regional variation



Facility deliveries by country (1990-2014)

Quality of care is being seriously challenged



What is (& what is not) quality maternal healthcare?

Too little too late

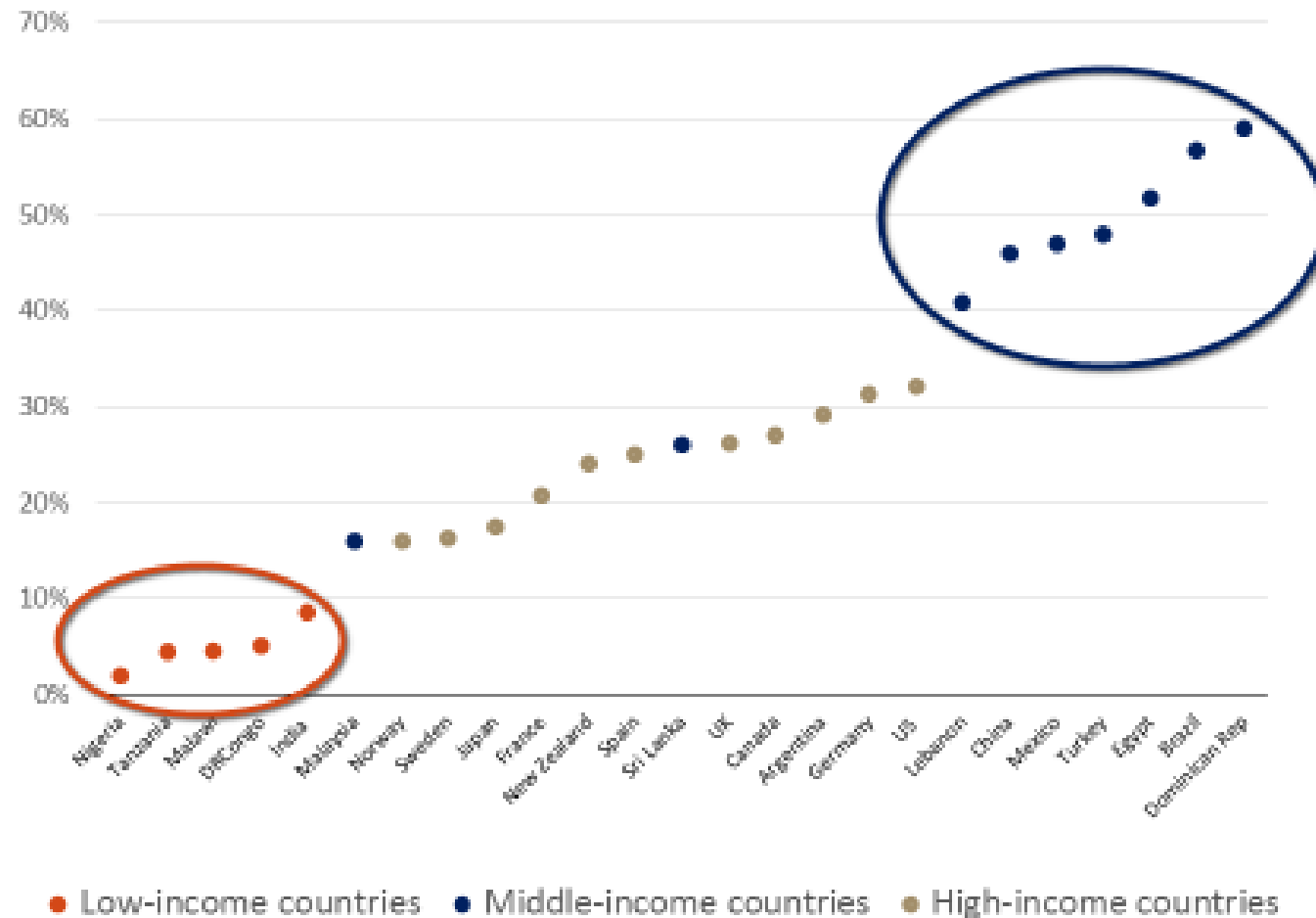
- Lack of evidence-based guidelines
- Women delivering alone
- Lack of equipment, supplies, medicines & basic infrastructure

**Appropriate,
Timely,
Evidence-
Based,
Respectful
Care**

Too much too soon

- Routine induced or augmented labor
- Routine antibiotics postpartum
- Unnecessary caesarean section
- Routine episiotomy

Caesarean sections: too much, too little



Disparate rates
between (and within)
countries

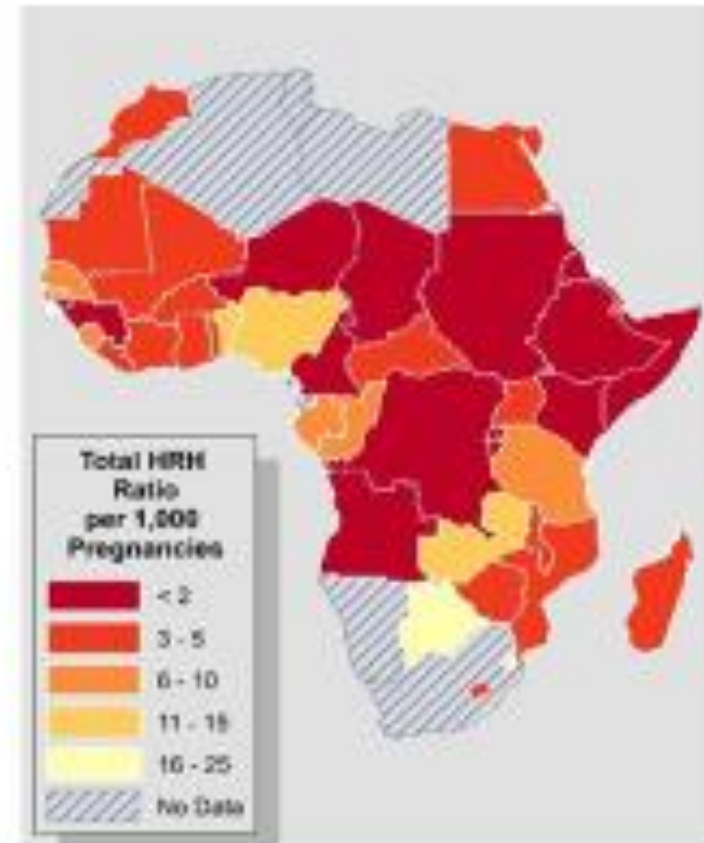
Both “too little, too
late” & “too much, too
soon”

Some disparities due
to differences in
adherence to
evidence-based
guidelines

“Old” challenges remain: acute human resources shortage (1)

Countries with largest numbers of births have some of lowest densities of midwives & obstetricians (<2 per 1000 pregnancies)

We need more maternal and newborn health workers



Open Access

Research

BMJ Open A qualitative process evaluation of training for non-physician clinicians/associate clinicians (NPCs/ACs) in emergency maternal, neonatal care and clinical leadership, impact on clinical services improvements in rural Tanzania: the ETATMBA project

David R Ellard,¹ Aloisia Shemdoe,² Festo Mazuguni,² Godfrey Mbaruku,²
David Davies,³ Paul Kihale,² Senga Pemba,⁴ Staffan Bergström,⁵
Angelo Nyamtema,⁴ Hamed-Mahfoudh Mohamed,² Joseph Paul O'Hare,⁶
On behalf of The ETATMBA Study Group



“Old” challenge 2: increasing inequity

In 1990, the pooled maternal mortality ratio for 10 countries with highest levels were 100 times greater than for the 10 with the lowest

By 2013, the gap had doubled to 200 times greater

“Maternal mortality is much more than a medical issue”

Ban Ki-moon

United Nations Secretary General

UN General Assembly 2009

Programmes to improve status of women and children?

- Gender perspectives
- Women's income generation; maternity leave & breastfeeding policies
- Women's education
- Human rights approaches
- Recognition of stillbirths
- **Most beyond the scope of health sector**

Coverage has increased but.....



53 million women
not receiving
childbirth care at all

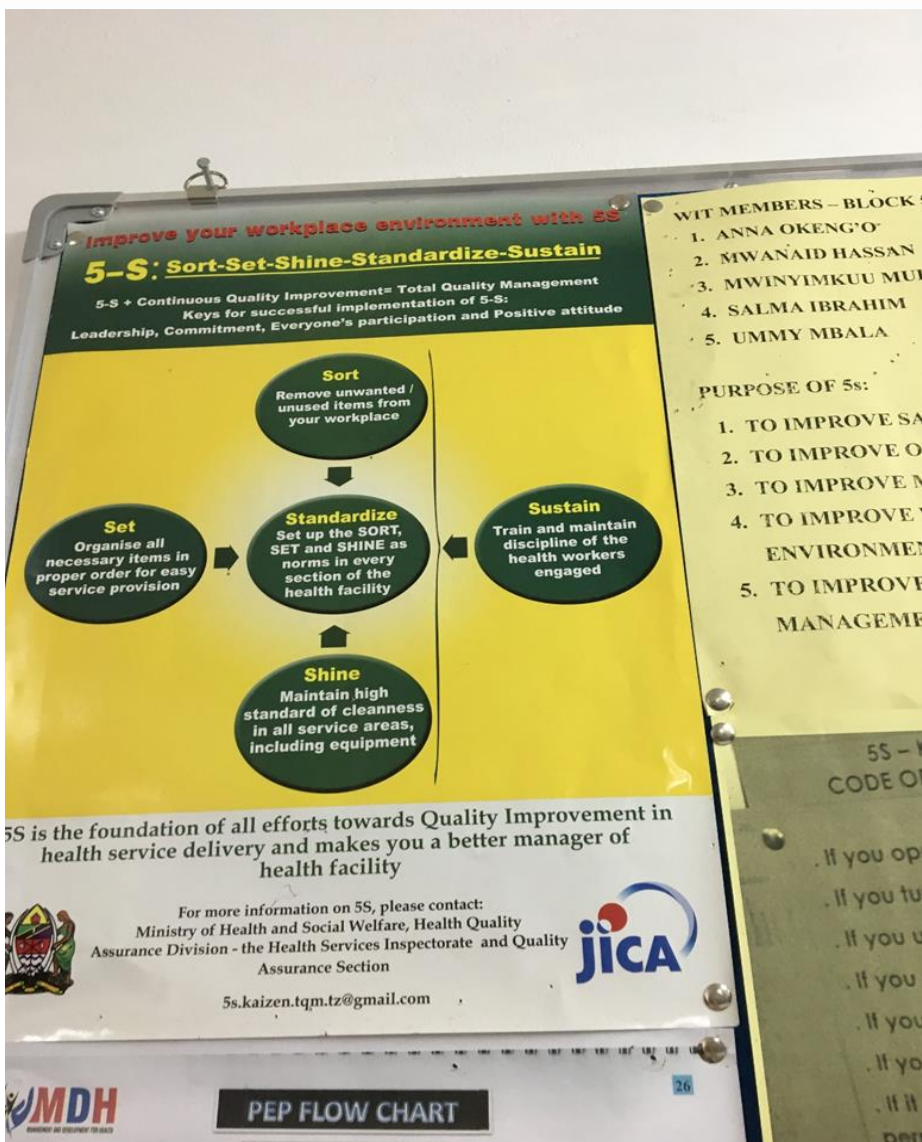
“Old” challenge 3: coverage is necessary by not sufficient



Evidence for poor infection prevention and control



Tanzanian initiatives



Five-star assessment of Tanzanian Hospitals

10% of overall score from Infection Prevention and Control activities

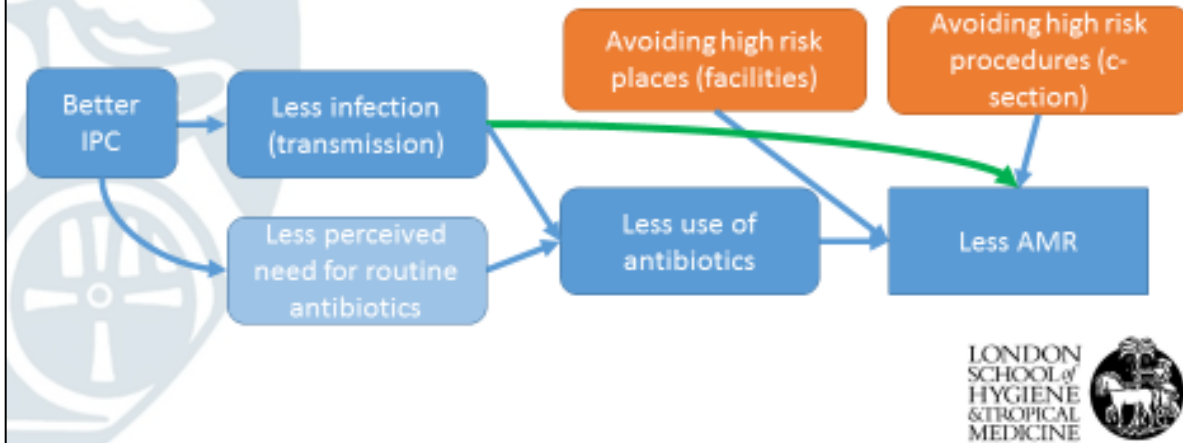
11	Infection prevention and control	28	25
1	Compound & surrounds well kept	2	3
2	Antiseptics & disinfectant are used	2	2
3	PEP for accidental exposure	3	1
4	Safe injection use	1	1
5	Handwashing performed	2	3
6	Instruments cleaned and sterilised	2	2
7	Personal protective equipment used	6	3
8	Laundry handled per IPC G/L	3	2
9	Healthcare waste disposal facilities	2	3
10	Staff trained in waste management	1	2
11	Waste segregation equipment	4	3

Hygienic practices & environment

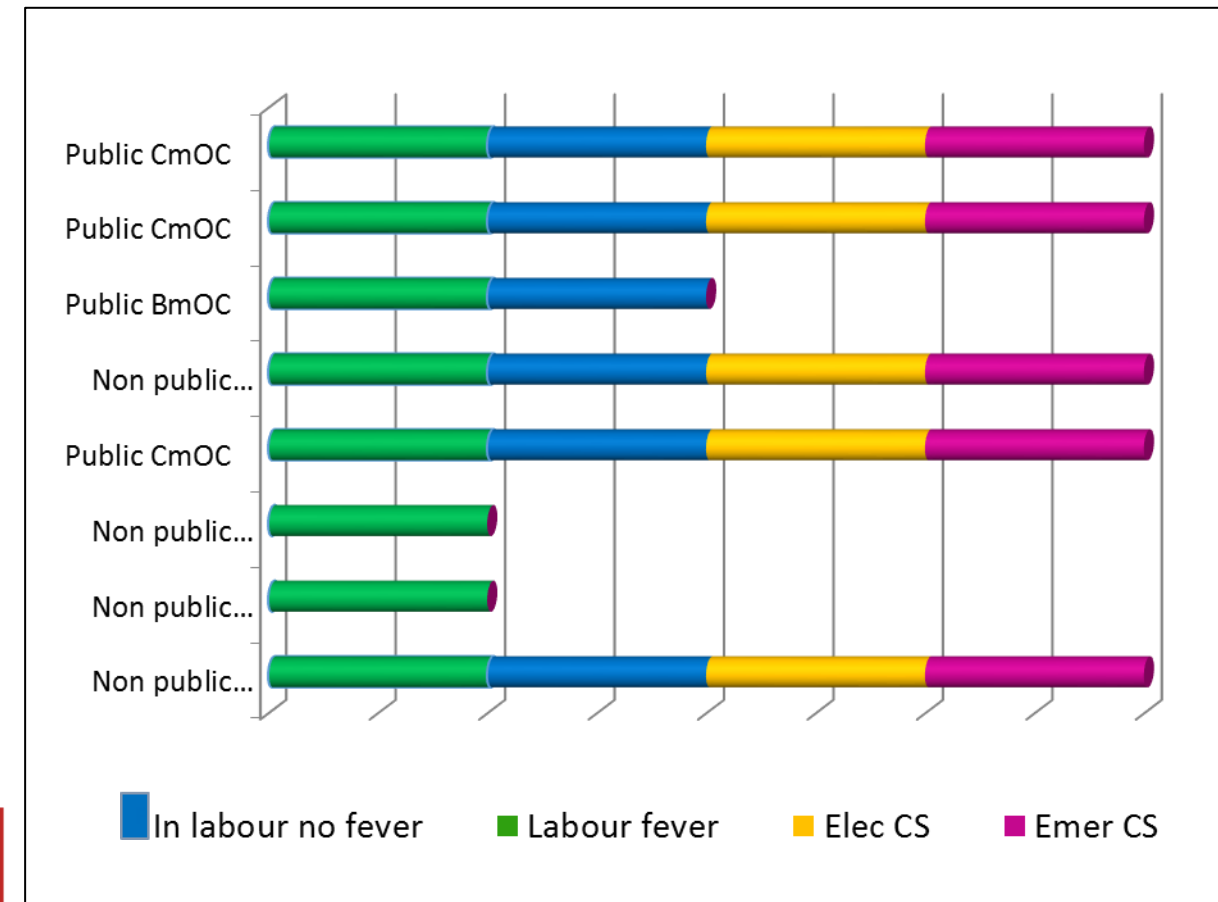
Emerging antimicrobial resistance

IPC → AMR

- Existing core component of any healthcare system
- The link between IPC and AMR



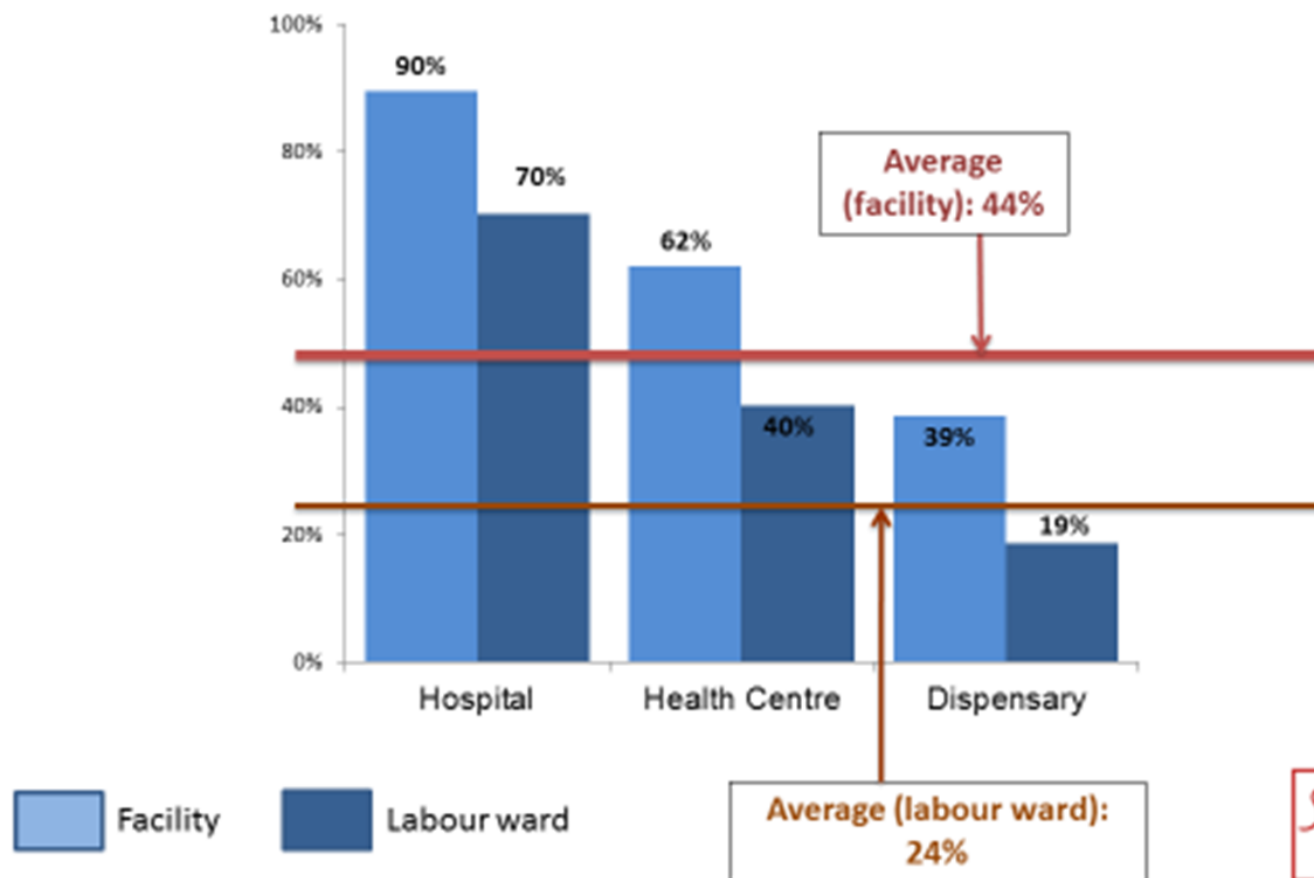
Use of antibiotics in 8 hospitals in India and Bangladesh



Safe WASH is an integral part of Quality of Care

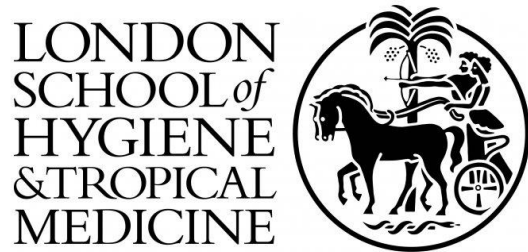


Tanzania 2010 -Health facilities and labour wards: % with water supply & latrines (“WASH safe”)



Benova, L., O. Cumming, and O.M.R. Campbell (2014)

The CLEAN study



**Presenters: Prof Wendy Graham, LSHTM
Dr Alex Aiken, LSHTM (PI)**

Co-investigators (IHI): Dr Abdunoor Mukolozi, Dr Fatuma Manzi,
Dr Stella Mwita, Dr Yovitha Sedekia, Sarah Mswata



Co-investigators (LSHTM): Giorgia Gon, Dr Sandra Virgo, Petri Blinkoff,
Prof Simon Cousens, Prof Tanya Marchant,
Dr Loveday Penn-Kekana, Prof Stephanie Dancer

Funding: JGHT Trial Development Grant from



Three messages:

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A NEW GLOBAL TARGET FOR REDUCING MATERNAL DEATHS

216 women died for every 100 000 live births in **2015**

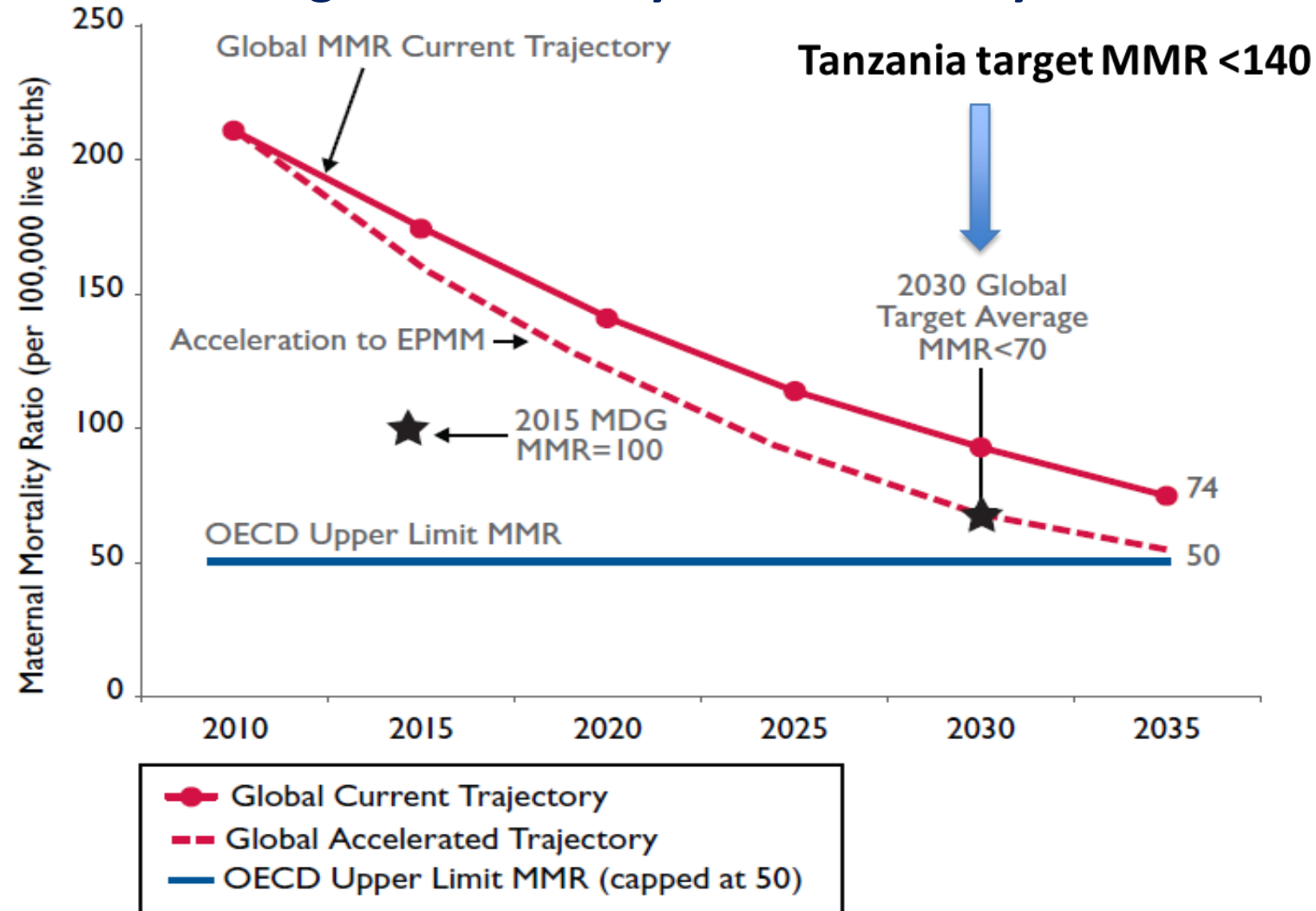


We aim for **<70** deaths
for every 100 000
live births by **2030***

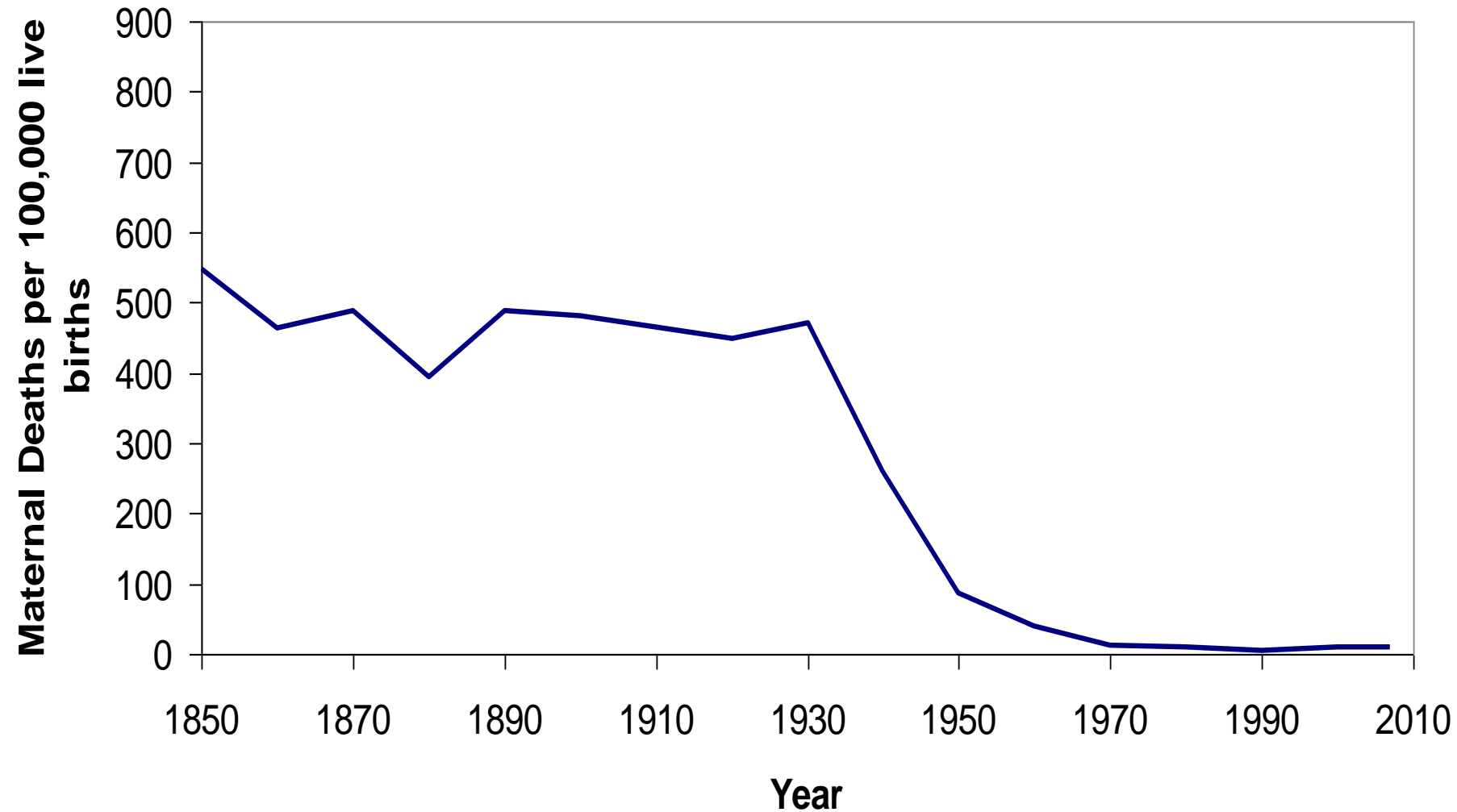
*Sustainable Development Goal 3.1

Accelerated progress is needed

Towards Ending Preventable Maternal Mortality (EPMM) Reaching MMR of 70 by 2030 and 50 by 2035



Maternal mortality decline: UK











Reproductive Health Matters

An international journal on sexual and reproductive health and rights

ISSN: 0968-8080 (Print) 1460-9576 (Online) Journal homepage: <http://www.tandfonline.com/loi/zrhm20>

Eye of the beholder? Observation versus self-report in the measurement of disrespect and abuse during facility-based childbirth

Lynn P Freedman, Stephanie A Kujawski, Selemani Mbuyita, August Kuwawenaruwa, Margaret E Kruk, Kate Ramsey & Godfrey Mbaruku



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To link to this article: <https://doi.org/10.1080/09688080.2018.1502024>

ACCELERATION INGREDIENTS

TO ACHIEVE THIS TARGET, WHAT IS NEEDED?



Political will & commitment



Improved access to quality care before, during & after childbirth



Contraception & safe abortion services



Strong health systems with trained health workers & essential medicines



Health & wellbeing: nutrition, education, water sanitation & hygiene



Accountability: every death must be counted & its cause recorded



Efforts to **reach everyone, everywhere**



Adoption of UHC has the potential to:

- Provide financial protections & reduce catastrophic health expenditures
- Focus on the life-course & non-communicable diseases
- Reintegrate maternal health into the broader women's health agenda



International Journal for Quality in Health Care, 2017, 29(1), 104–110

doi: 10.1093/intqhc/mzw141

Advance Access Publication Date: 5 December 2016

Article

OXFORD

Article

Beyond utilization: measuring effective coverage of obstetric care along the quality cascade

ELYSIA LARSON¹, DANIEL VAIL², GODFREY M. MBARUKU³,
REDEMPTA MBATIA⁴, and MARGARET E. KRUK¹



Who is left behind on the road to universal facility delivery? cross-sectional multilevel analysis in rural Tanzania

Margaret E. Kruk¹, Sabrina Hermosilla², Elysia Larson¹, Daniel Vail², Qixuan Chen², Festo Mazuguni³, Beatrice Byalugaba³ and Godfrey Mbaruku³ 

¹ Harvard TH Chan School of Public Health, Boston, MA, USA

² Columbia University Mailman School of Public Health, New York, NY, USA

³ Ifakara Health Institute, Dar es Salaam, Tanzania

Leave no one behind: quality care for every mother and every newborn



Bellagio Declaration on high-quality health systems: from a quality moment to a quality movement



In the past two decades, the world has markedly improved health and economic opportunities for millions of people. Low-income and middle-income countries have enhanced access to safe water, sanitation, education, and nutrition and have expanded health services for women and children. These efforts have reduced mortality from vaccine-preventable diseases, maternal and child health

quality champions (panel). As Forum participants, we declare the following statements.

We endorse the new definition of high-quality health systems, as systems that consistently deliver services that improve or maintain health, are trusted by people, and can adapt to changing needs and health shocks. Health systems are first and foremost for people, and they

Lancet Glob Health 2018

Published Online

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See Online/The Lancet

Global Health Commission

[http://dx.doi.org/10.1016/S2214-109X\(18\)30386-3](http://dx.doi.org/10.1016/S2214-109X(18)30386-3)

**Lancet Commission on
Quality Health Systems
Sep 5th 2018**

Three messages:

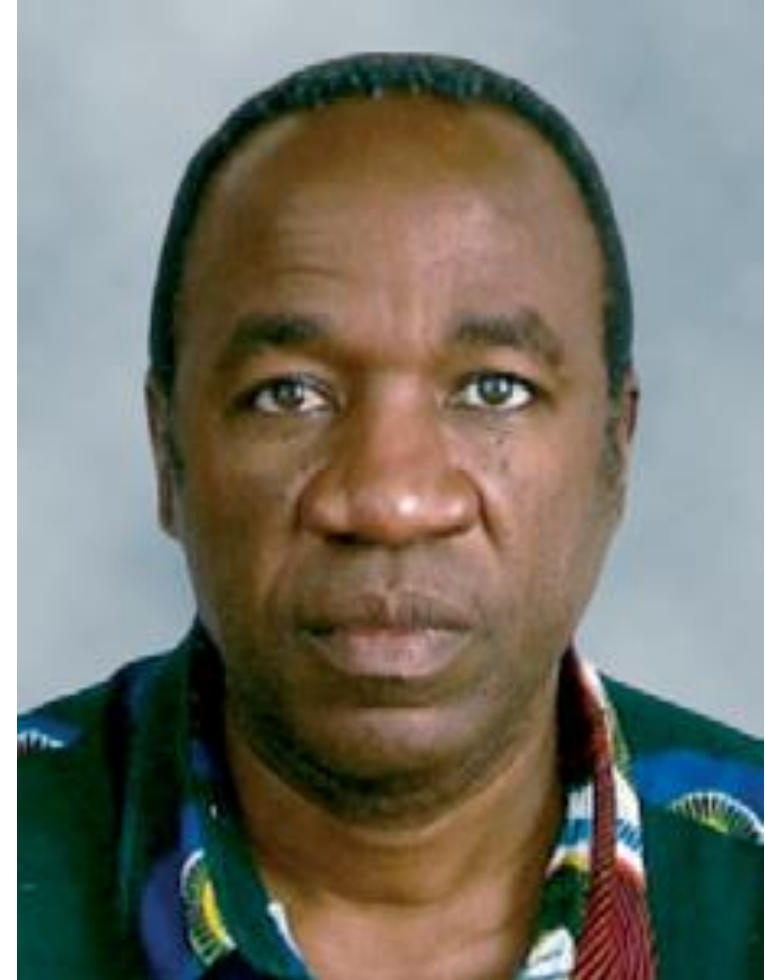
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In memoriam

***Godfrey Mbaruku - an early hero of
modern maternal health***

The Lancet Vol 375 June 5, 2010

***“But I changed my mind when I saw the
positive changes that were possible.”***



1954-2018

THANK YOU

www.maternalhealthseries.org

www.soapboxcollaborative.org

www.lshtm.org

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