

Overview of Methods to Measure Quality of Care

Quality of TB Care

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Measurement should be ‘fit for purpose’

Indicator content, level, frequency, synthesis, and use should be defined in reference to a specific purpose

Accountability:

Using data to enhance transparency, including benchmarking progress relative to agreed standards and targets

Action:

Using data to diagnose problems, guide the scope of health system improvement interventions, and assess intervention effects

Current quality measurement in LMICs is not ‘fit for purpose’

	Quality-relevant indicators	Foundation	Process of care		Quality Impact		
		All	Competent care	User experience	Health outcomes	Confidence	Economic benefit
Global measurement sets							
Countdown 2030 Indicators	91	41	26	1	23	0	2
SDG health Indicators	28	11	7	1	8	0	1
WHO Core 100 (2015)	49	15	14	0	18	0	2
Cross-national measurement sets							
DHS	72	4	51	2	14	0	1
SDI	726	723	2	0	1	0	0
SPA	1269	784	349	108	22	6	0
Example national measurement sets for routine health system measurement							
Kenya HIS	135	60	53	3	17	0	0
Mexico IMSS, ISSSTE, MOH	471	205	97	36	103	17	13
Nepal HMIS	183	89	39	0	32	0	0

How can we improve measurement?

High-quality health systems in the Sustainable Development Goals era: time for a revolution



Margaret E Kruk, Anna D Gage, Catherine Arsenaault, Keely Jordan, Hannah H Leslie, Sanam Roder-DeWan, Olusoji Adeyi, Pierre Barker, Bernadette Daelmans, Svetlana V Doubova, Mike English, Ezequiel Garcia Elorrio, Frederico Guanais, Oye Gureje, Lisa R Hirschhorn, Lixin Jiang, Edward Kelley, Ephrem Tekle Lemango, Jerker Liljestrand, Address Malata, Tanya Marchant, Malebona Precious Matsoso, John G Meara, Manoj Mohanan, Youssoupha Ndiaye, Ole F Norheim, K Srinath Reddy, Alexander K Rowe, Joshua A Salomon, Gagan Thapa, Nana A Y Twum-Danso, Muhammad Pate



1. Measure effective coverage

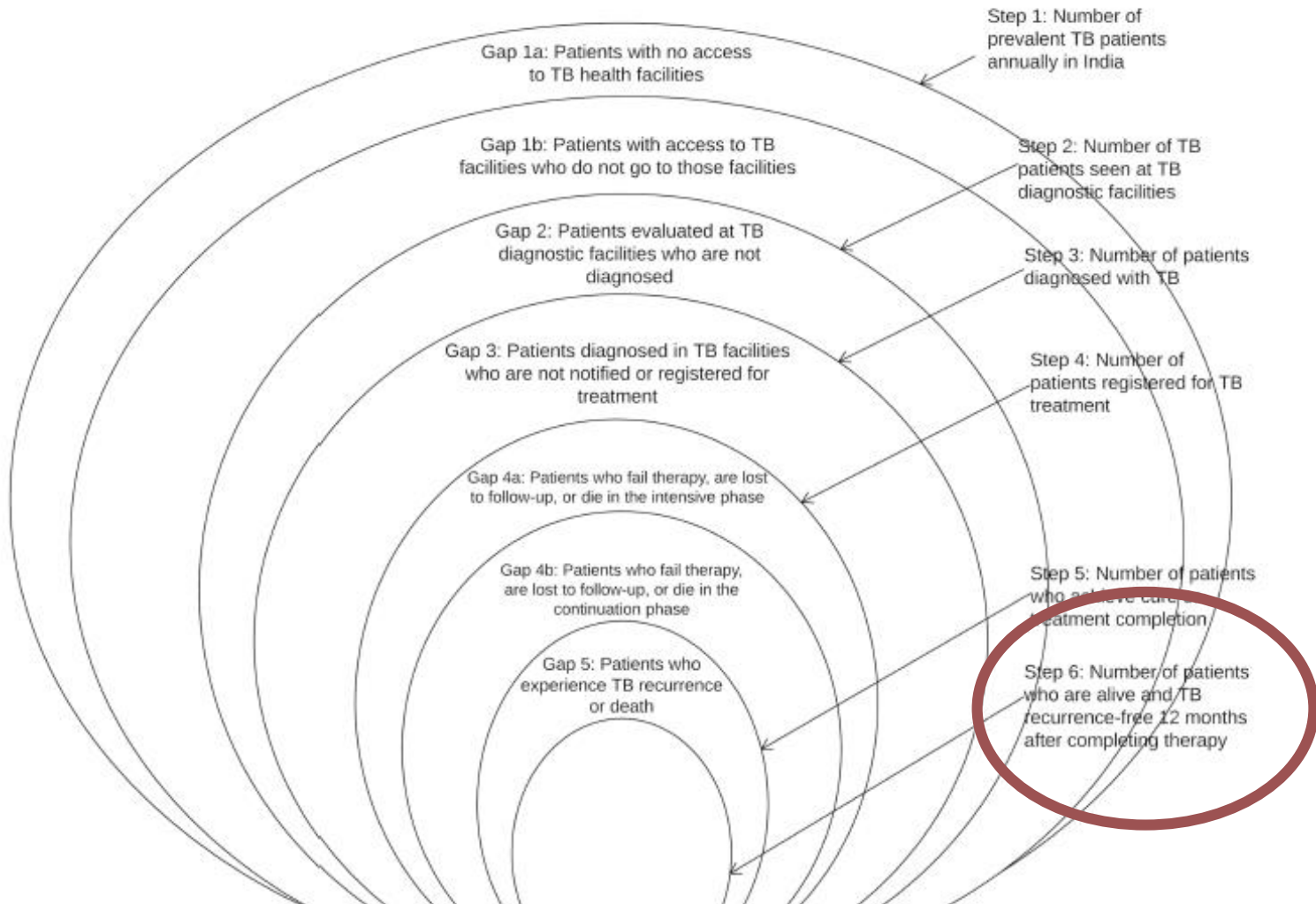
2. Adopt fewer, better measures

3. Invest for country-led quality measurement

1. Measure effective coverage

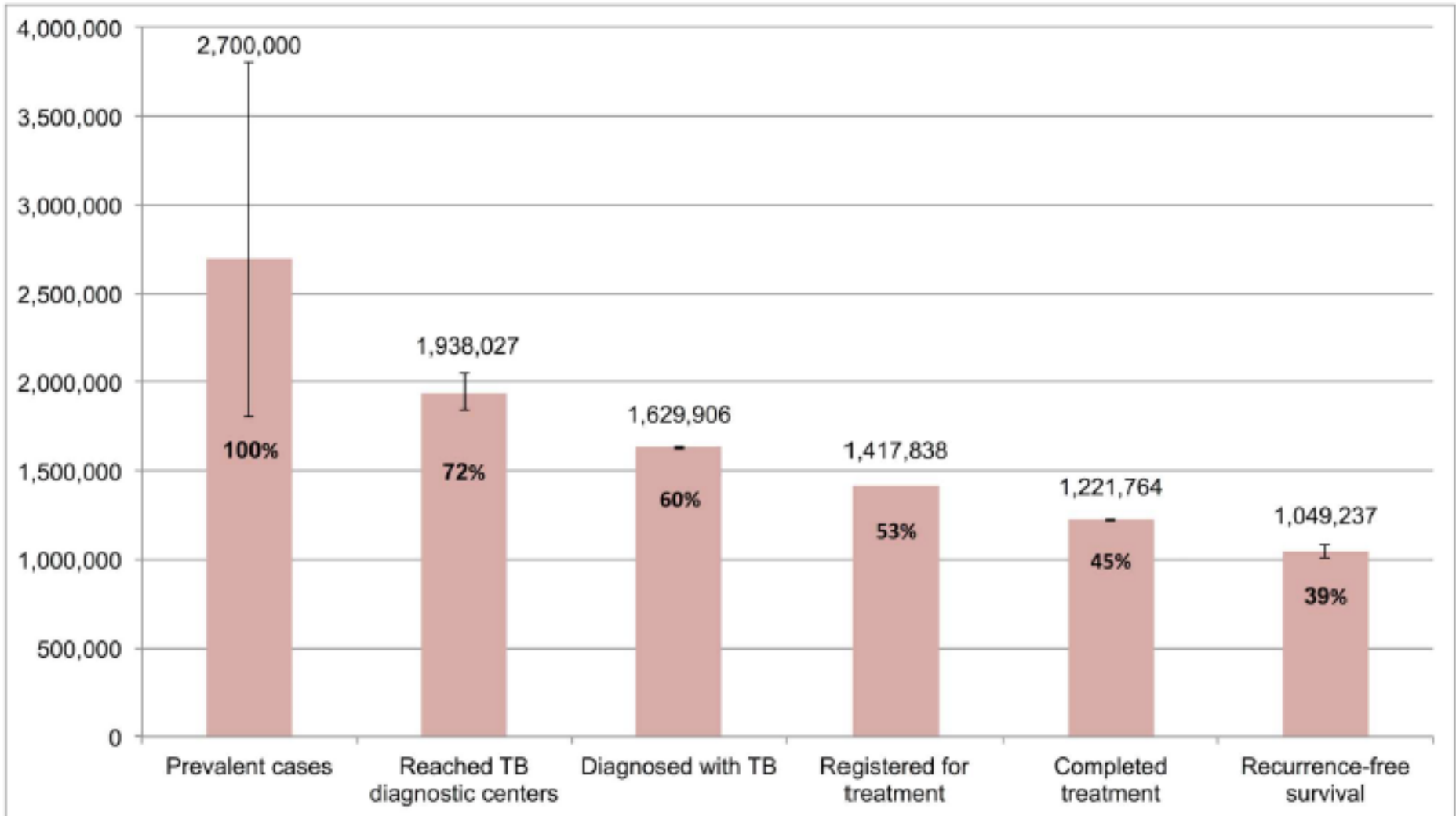
Current coverage indicator	Illustrative effective coverage indicator
Care-seeking behavior for children with suspected pneumonia (%)	Children diagnosed with pneumonia receiving appropriate treatment per national or IMCI guidelines
People with HIV receiving antiretroviral therapy (%)	People with HIV with viral suppression
Proportion of people with TB who who successfully complete treatment	As is

TB cascade of care; integrates the WHO onion model with concepts from the HIV cascade of care



Source: Subbaraman R, et al. (2016) The Tuberculosis Cascade of Care in India's Public Sector: A Systematic Review and Meta-analysis. PLOS Medicine 13(10)

TB Care Cascade India, 2013



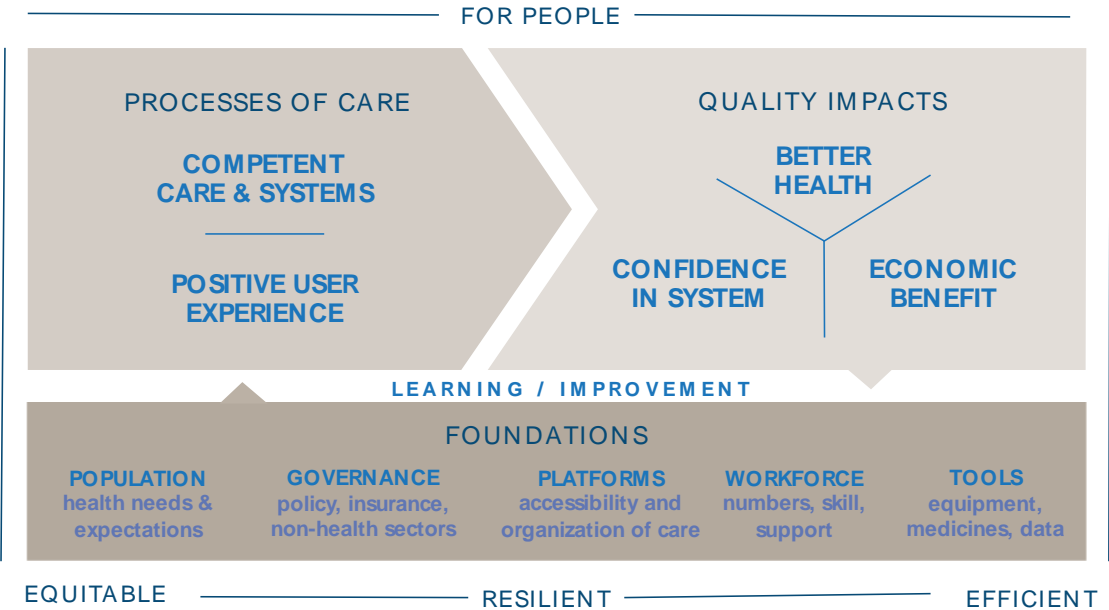
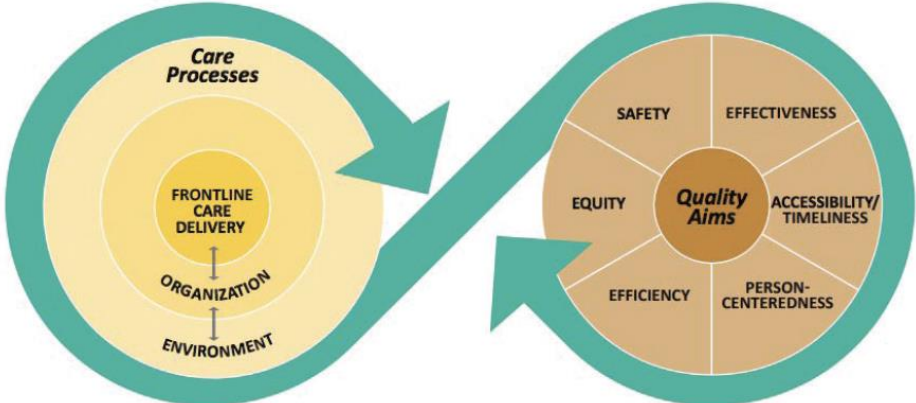
Source: Subbaraman R, et al. (2016) The Tuberculosis Cascade of Care in India's Public Sector: A Systematic Review and Meta-analysis. PLOS Medicine 13(10)



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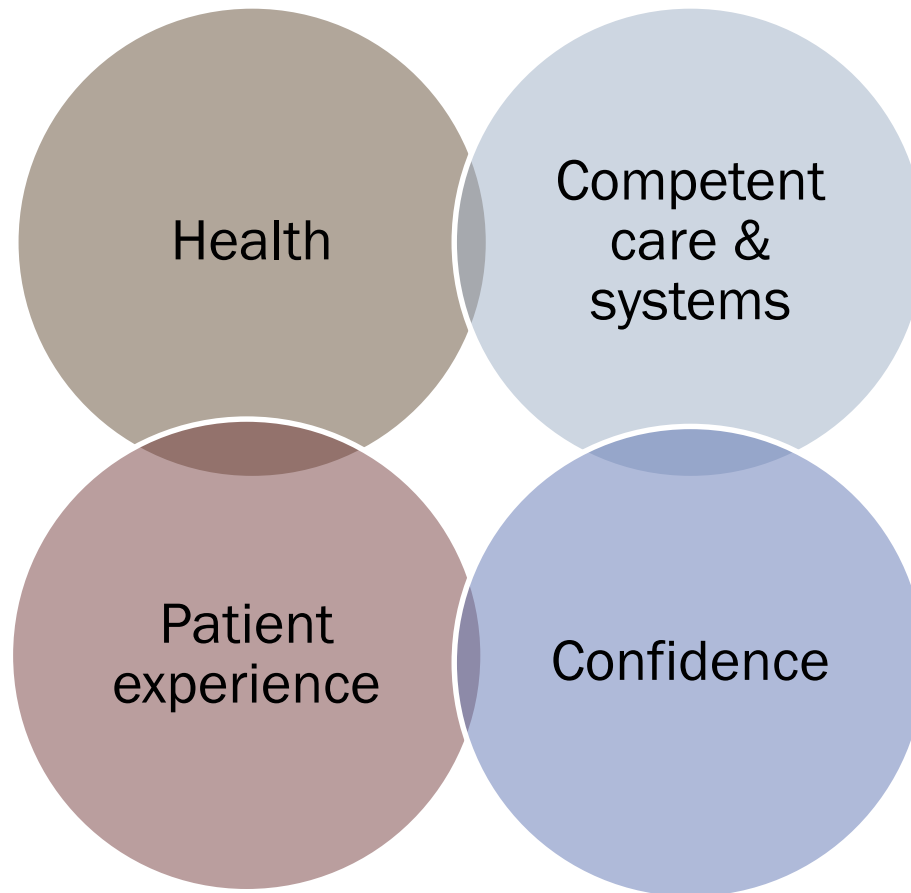
SCHOOL OF PUBLIC HEALTH
Department of Global Health
and Population

2. Fewer, better measures



Sources: Crossing the global quality chasm: improving health care worldwide. Washington: National Academies of Science, Engineering, Medicine; 2018.; Delivering quality health services: a global imperative for universal health coverage. Geneva: World Health Organization, Organisation for Economic Co-operation and Development and The World Bank; 2018 ; Kruk et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. Lancet Glob Health. 2018

2. Measure what matters to people



Choose person-centered measures

1. Define the purpose
2. Address subjectivity
3. Validate and test

Policy & practice

When the patient is the expert: measuring patient experience and satisfaction with care

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Abstract In 2018, three independent reports were published, emphasizing the need for attention to, and improvements in, quality of care to achieve effective universal health coverage. A key aspect of high quality health care and health systems is that they are person-centred, a characteristic that is at the same time intrinsically important (all individuals have the right to be treated with dignity and respect) and instrumentally important (person-centred care is associated with improved health-care utilization and health outcomes). Following calls to make 2019 a year of action, we provide guidance to policy-makers, researchers and implementers on how they can take on the task of measuring person-centred care. Theoretically, measures of person-centred care allow quality improvement efforts to be evaluated and ensure that health systems are accountable to those they aim to serve. However, in practice, the utility of these measures is limited by lack of clarity and precision in designing and by using measures for different aspects of person-centredness. We discuss the distinction between two broad categories of measures of patient-centred care: patient experience and patient satisfaction. We frame our discussion of these measures around three key questions: (i) how will the results of this measure be used?; (ii) how will patient subjectivity be accounted for?; and (iii) is this measure validated or tested? By addressing these issues during the design phase, researchers will increase the usability of their measures.

Abstracts in [عربي](#), [中文](#), [Français](#), [Русский](#) and [Español](#) at the end of each article.

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3. Invest in country-led quality measurement

High-quality health system dashboard

Country, year

System competence

Prevention and detection



Children with complete immunisation: X%



Adults with up to date NCD screening: X%

Integration

Proportion of adults with NCD screened for multimorbidity (eg, TB/diabetes, hypertension/diabetes)



Safety

Percentage of hospital-acquired infections



Percentage of unsafe injections



Timely care

Percentage of cancer treated in early stage

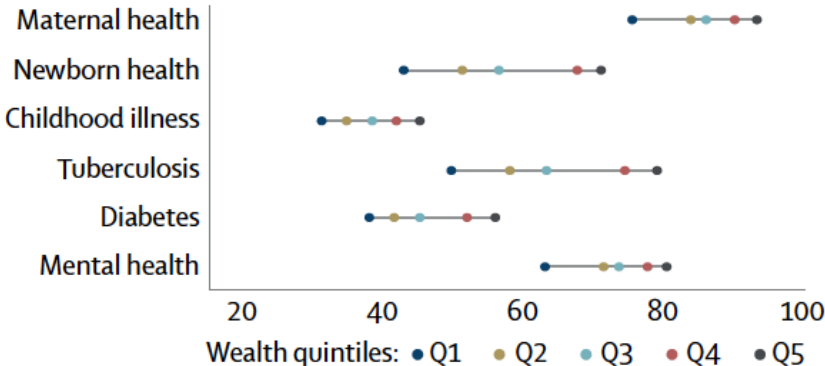
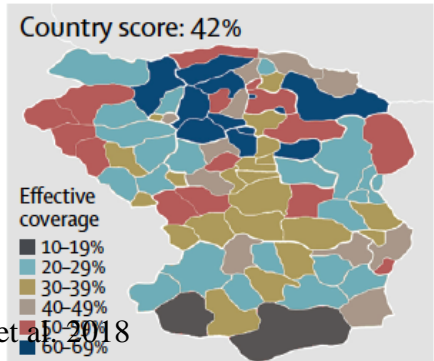


Percentage of women receiving oxytocin within 1 min of delivery

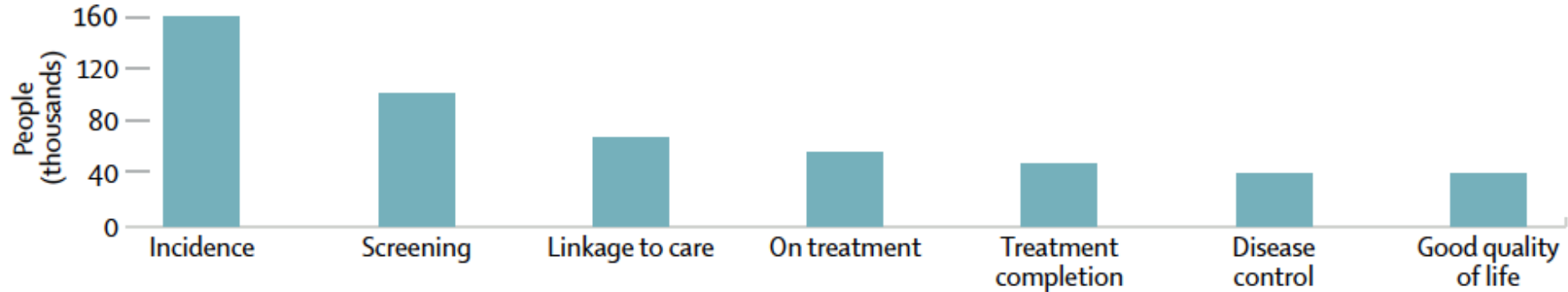


Median time from injury to admission: X min

Effective coverage for priority conditions: distribution and equity

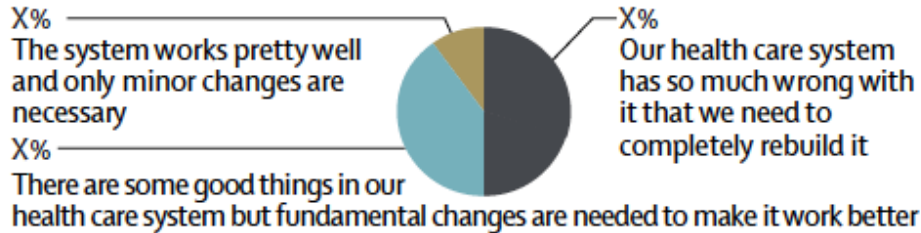


Care cascade for priority condition

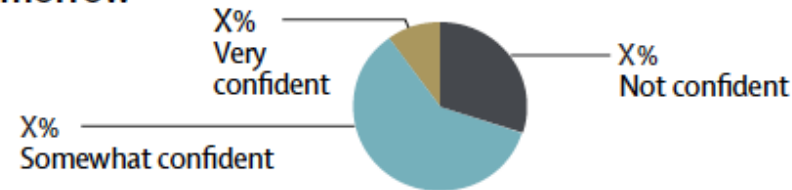


Confidence and economic benefit

Endorsement of health system



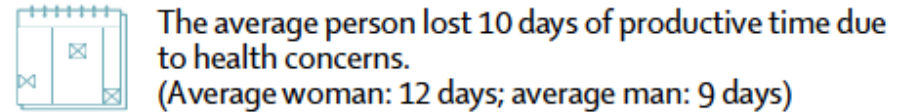
Confidence in receiving effective treatment if became sick tomorrow



Financial protection

Households with catastrophic expenditure on health	X%
Households impoverished by health expenditure	X%

Measure of productive time lost to poor health



MEASUREMENT TOOLS



Measurement tools: Observation

- Measures:
 - practice (competent care and patient experience)
- Benefits:
 - reflects care provided to actual patients
- Drawbacks:
 - May not measure knowledge
 - Hawthorne effect (observation bias)
 - Does not account for patient and case-mix
 - Rare illnesses are challenging
 - ‘Truth’ is unknown

Measurement tools: Standardized patients

	Case description	Presentation of patient	Expected correct case management
Standardised patient 1	Classic case of presumed tuberculosis with 2–3 weeks of cough and fever	Presents with presumptive tuberculosis, for the first time, to a private health-care provider	Recommendation for sputum testing, chest radiograph, or referral to a public DOTS centre or qualified provider
Standardised patient 2	Classic case of presumed tuberculosis in a patient who has had 2–3 weeks of cough and fever and a history of taking a broad-spectrum antibiotic (amoxicillin) for 1 week, given by another health-care provider, with no improvement	Presents after an initial, failed (empirical) treatment for symptoms with broad-spectrum antibiotics	Recommendation for sputum testing, chest radiograph, or referral to a public DOTS centre or qualified provider

- Measures: practice (competent care and patient experience)
- Benefits:
 - reflects care provided to actual patients
 - No Hawthorne effect
 - Can account for patient and case-mix
 - “Truth is known”
- Drawbacks:
 - Some misclassification in reporting
 - Treatment cannot always be assessed
 - Not possible for some illnesses
 - Adults only

Standardized patients (SP): process

- Case development: experts (in local context and medical details)
- SP recruitment, training, script development
- IRB
- Survey and data

Standardized patients: validation

- Low detection rates (~5%)
- Harm to SPs: 3 cases
- Harm to providers: non reported
- Audio recordings correlated with recall (r=0.63)

Measurement tools: Vignettes

- Measures:
 - Knowledge (measures the maximum a provider can do)
- Benefits:
 - Can account for patient and case-mix
 - “Truth is known”
 - Can cover all illnesses
- Drawbacks:
 - No measure of patient experience
 - Hawthorne effect
 - Do not account for provider behaviors (do not reflect actual practice)

Measurement tools: Chart abstraction

- Measures:
 - practice (competent care)
- Benefits:
 - Easy to collect
- Drawbacks:
 - May not measure actual care (poor record keeping)
 - Hawthorne effect
 - Does not account for patient and case-mix
 - ‘Truth’ is unknown



Related, but for inputs: Clinic audit

Measurement tools: Interviews

- Measures:
 - practice (competent care and patient experience)
- Benefits:
 - Gold standard for patient experience
 - Can include vignettes to standardize across populations
 - Can follow care across the system
- Drawbacks:
 - Recall bias
 - Does not account for patient and case-mix
 - ‘Truth’ is unknown

A few points on data quality

- Data should be:
 - Accurate and complete
 - Reliable/Consistent
 - Standardized
 - Reproducible (transparent procedures)
 - Timely
- Achieve through:
 - Pilot
 - Timely review and use of data
 - Tablets

If you remember one thing:

- Measure for a purpose

If you remember a couple more things:

- Focus on measuring competent care & patient experience
- Measure effective coverage
- Consider using standardized patients

Thank you

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