

# NCD HARD TALKS

**WHAT** in the  
world is NCD  
integration and  
**HOW** to do it?



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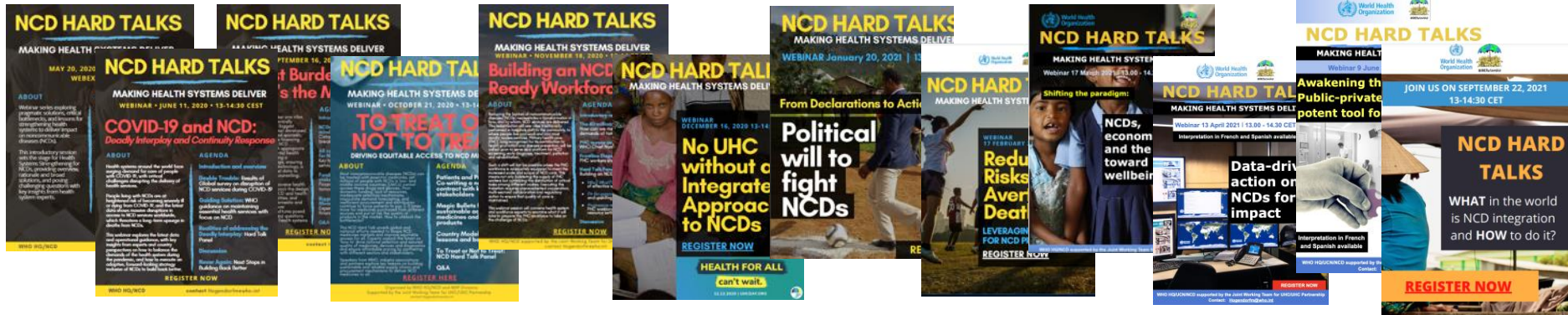




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# NCD HARD TALKS

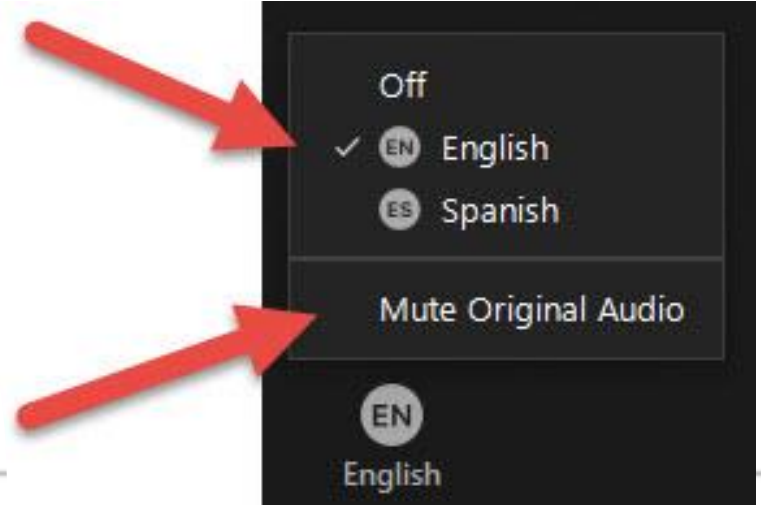


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# Thank you for joining

- **Interpretation** available in French and Spanish
- This webinar will be **recorded**, and links to the recording and all slides will be shared.
- **Please participate** in the discussion by sharing your questions in the Q&A box. Experts are invited to type their answers throughout the session.
- **General comments** can be shared in the chat box.
- **Please be respectful** - we are here to learn and exchange ideas.



# Agenda



JOIN US ON SEPTEMBER 22, 2021  
13-14:30 CET

## NCD HARD TALKS

WHAT in the world  
is NCD integration  
and **HOW** to do it?

**REGISTER NOW**

### NCD HARD TALK SPEAKERS

22 SEPT 2021  
13:00 CEST

WHAT in the world is  
NCD integration and  
HOW to do it?



Dr Bente Mikkelson  
Director, Department for  
NCDs, WHO



Dr Chertan Varghese  
Cross-cutting lead, NCD  
department, WHO



Dr Viktoria Stein  
Co-Founder and Co-CEO  
VM Partners Integrating  
Health and Care  
Joint Editor-in-Chief,  
International Journal for  
Integrated Care



Mr Austen Davis  
Senior Adviser  
Department for Education  
and Global Health  
Norwegian Development  
Agency

Dr Beatrice Matanje  
Medical Director  
Partners In  
Health/Abwenzi Pa Za  
Umoyo  
Malawi site, Neno



Dr Gene Bukhman  
Associate Professor of  
Global Health and Social  
Medicine, Harvard Medical  
School  
Lancet NCDI Poverty  
Commission



Dr Hongyi Xu  
Technical Officer,  
Integrated Service  
Delivery, NCD department,  
WHO



Emma Feeny  
Director of Global  
Advocacy & Policy  
Engagement  
The George Institute for  
Global Health



**REGISTER NOW**

- Welcome
- Introductory remarks
- Integration of NCDs-  
what do we mean?
- Implementation  
Guidance on NCDs  
Services Integration
- Hard Talk Panel
- Discussion and Q & A
- Concluding remarks

# Introductory remarks

**Dr Bente Mikkelsen**

Director,  
NCD Department, WHO



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# Moderator

**Dr Temo Waqanivalu**

Unit Head, Integrated Service Delivery

NCD Department, WHO



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# Integration of NCDs- what do we mean?

**Dr Cherian Varghese**

Cross-cutting lead

Noncommunicable diseases, WHO



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# Implementation Guidance on NCDs Services Integration

**Dr Hongyi Xu**

Integrated Service Delivery

Noncommunicable diseases, WHO



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# Implementation Guidance on NCDs Services Integration

Dr Hongyi XU, Technical Officer  
WHO HQ/NCD/ISD Integrated Service Delivery

**22 SEPTEMBER 2021**

**WHO NCD HARD TALKS: WHAT IN THE WORLD IS NCD INTEGRATION AND HOW TO DO IT?**

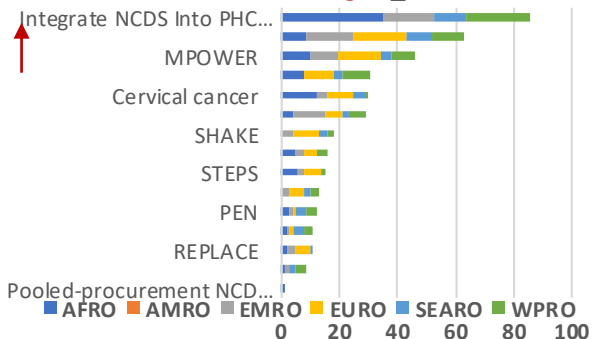
# Background

## • WHY

### 2011, 2018 UN Political Declaration on NCDs

#### We commit to:

Integrate, as appropriate, responses to non-communicable diseases and communicable diseases, such as HIV/AIDS and tuberculosis, especially in countries with the highest prevalence rates, taking into account their **linkages** \_2018



## • OBJECTIVE

- **Maximize the impact** of health services and extend access to NCD care.

**Bangladesh, Haiti, Malawi, Nepal, and Tanzania:** Very few facilities were fully "ready" to **provide NCD service** ( Moucheraud, 2018)

**South Africa: "I Just Wish That Everything Is in One Place":** Facilitators and Barriers to Continuity of Care Among HIV-positive, Postpartum Women With a Non-Communicable Disease in South Africa (Clause, 2018)

## • SCOPE AND FOCUS

- Strategic considerations and practical solutions for **integrating NCD services** into other programmes and broader health systems through **primary health care**

# Basis and Evidence

	WHO 3 levels working group consultation	Rapid qualitative systematic review *	Literature reviews and Case Studies	Expert group meeting	Appraisal thorough surveys	Public consultation	Others
Planning and scoping stage	√						√Desk and scoping review
Key considerations (total 21): evidence base	√	√	√	√	√	√	√Grey literatures, field stories, WHO webinars including NCD hard talk series
Other narratives: programming, social determinants, contexts, adaptation, M&E	√		√	√		√	√WHO existing source documents √Existing systematic review including meta-analysis
Guidance drafting, content and structure	√			√	√	√	√WHO small group

# Deliverables

## • Finalizing

- **Implementation considerations for integrating noncommunicable diseases into primary health care and other programme**
- **Chapters:**
- **Annex 1. Case studies**
- **Annex 2. Methods**
- **Annex 3. Qualitative systematic review**
- **Annex 4. Expert group meeting report**
- **Annex 5. Relevant WHO resources and tools**

## • Drafts

- **Integrated service delivery models (policy brief)**
- **Classification NCD service integration: understanding its use in LMIC**

## • Country application entry points

1. **Start from existing partnership, diseases initiatives, to fix health system key pieces**
2. **Improve technology and infrastructure, resources management**
3. **Improve linkage of NCDs service to responses of specific diseases such as communicable diseases, maternal and child health**
4. **Empower community and people as part of solution**
5. **Develop and mature integrated service models**

## Message: key considerations

Domains	Considerations
People and communities.	1. Ensure community and patient involvement at all levels.
	2. Develop measurements and monitoring systems that are <u>patient-centred</u> .
Policy, leadership	3. Provide policy directives for integration.
	4. Create and support a transformation team for NCD service integration.
	5. Align political, institutional and health systems, with the necessary resources.
	6. Provide transformational leadership and change management.
Financing	7. Ensure that funding is available for structural resources, software and service models.
	8. Harmonize funding models and sources with national health plans and NCD service integration.
Models of care	9. Assess health system functioning, strength and readiness for before integration.
	10. Redefine and ensure that planned NCD service integration is compatible, acceptable, feasible and fits well with existing services.
	11. Clarify the roles and functions of providers.
	12. Engage with managers and providers throughout integration.
	13. Ensure effective coordination, supportive supervision and mentoring.
	14. Monitor the outcomes of NCD service integration for services, patients and the population, and conduct implementation research.
Resource and enablers	15. Consider how best to use information and communication technology (ICT) systems for exchange of health information.
	16. Build multidisciplinary NCD teams.
	17. Provide comprehensive, tailored, flexible, interactive training in integration.
	18. Provide training of providers in ICT, assess other technology for service integration
	19. Provide adequate infrastructure for delivering integrated NCD care.
	20. Ensure strong operational management and human resource development.
	21. Develop strong procurement systems to meet the requirements of NCD integration.

WHO region	Country income level [4]			
	Low	Lower-middle	Upper-middle	High
African Region (n=9)	<b>Ethiopia, Malawi</b> – NCDs in HIV <b>Rwanda</b> – Oncology in NCDs in hospitals <b>Sierra Leone</b> – NCDs in health system <b>Uganda</b> – HIV, CDs and NCDs in community care	<b>Cameroon</b> – Diabetes and hypertension in facilities with no physician or clinician <b>Kenya</b> – HIV and SRH in hospital	<b>Namibia</b> – Anaemia and other NCDs in community care <b>South Africa</b> – HIV and NCDs in PHC	
Region of the Americas (n=7)		<b>Bolivia</b> – Youth SRH in health system	<b>Argentina</b> – Cancer, heart disease and other in health system <b>Brazil</b> – Chronic conditions in PHC <b>Paraguay</b> – Epilepsy and other in health system (telemedicine)	<b>Canada</b> – Diabetes and other in health system <b>Chile</b> – Chronic conditions in PHC <b>USA</b> – Autism and mental health in PHC
Eastern Mediterranean Region (n=6)	<b>Afghanistan</b> – NCDs in PHC in crisis situation <b>Sudan</b> – Rheumatic heart disease in child health and NCD programmes	<b>Syrian Arab Republic</b> – NCDs and mental health in PHC in a protracted emergency	<b>Islamic Republic of Iran</b> – NCDs and cardiac rehabilitation in health system <b>Lebanon</b> – Provision of medication for chronic diseases	<b>Oman</b> – NCDs in health system, COVID-19
European Region (n=10)	Case Studies		<b>Albania</b> – NCDs in PHC <b>Bulgaria</b> – Chronic conditions of the elderly in home care <b>Georgia</b> – Rehabilitation in health system	<b>Croatia</b> – Chronic conditions in health system <b>Denmark</b> – COPD and rehabilitation in home care (telemedicine) <b>France</b> – Stroke in health system (telemedicine) <b>Germany</b> – Chronic conditions in
				health system <b>Sweden</b> – Chronic conditions of the elderly in health system <b>United Kingdom</b> – Diabetes in health system
South-East Asian Region (n=4)		<b>Bhutan</b> – NCD people-centred care <b>India</b> – Mental health in PHC <b>Nepal</b> – Diabetes, hypertension and	<b>Thailand</b> – NCDs in PHC	



# Relevant resources and tools

Category	Title	Links
WHO	Health interventions for Universal Health Coverage. 2020	<a href="https://www.who.int/universal-health-coverage/compendium">https://www.who.int/universal-health-coverage/compendium</a>
	Framework on integrated, people-centred health services. 2016	<a href="https://apps.who.int/ebwha/pdf_files/WHA69/A69_39-en.pdf">https://apps.who.int/ebwha/pdf_files/WHA69/A69_39-en.pdf</a>
	Operational Framework for Primary Health Care. 2020	<a href="https://www.who.int/publications/i/item/9789240017832">https://www.who.int/publications/i/item/9789240017832</a>
	Noncommunicable diseases: what municipal authorities, local governments and ministries responsible for urban planning need to know. 2016	<a href="https://apps.who.int/iris/handle/10665/250228">https://apps.who.int/iris/handle/10665/250228</a>
	Strengthening NCD service delivery through UHC benefit package: technical meeting report. 2020	<a href="https://apps.who.int/iris/handle/10665/338690">https://apps.who.int/iris/handle/10665/338690</a>
	Strategizing national health in the 21st century: a handbook. 2016	<a href="https://apps.who.int/iris/handle/10665/250221">https://apps.who.int/iris/handle/10665/250221</a>
	Technical brief on Integrated health services – What and why? 2008	<a href="https://www.who.int/healthsystems/service_delivery_technical_brief1.pdf">https://www.who.int/healthsystems/service_delivery_technical_brief1.pdf</a>
	A system-wide approach to analysing efficiency across health programmes. 2017	<a href="https://apps.who.int/iris/handle/10665/254644">https://apps.who.int/iris/handle/10665/254644</a>
	Final report of the working group on the inclusion of NCDs in other programmatic areas for the WHO global coordination mechanism on the prevention and control of NCDs. 2018	<a href="https://apps.who.int/iris/handle/10665/312271">https://apps.who.int/iris/handle/10665/312271</a>
	Technical brief on Primary health care as an enabler for “ending the epidemics” of high-impact communicable diseases. 2018	<a href="https://apps.who.int/iris/handle/10665/326300">https://apps.who.int/iris/handle/10665/326300</a>
	Report on the regional meeting on strengthening the integration and management of noncommunicable diseases in primary health care. The WHO the Eastern Mediterranean. 2014	<a href="https://applications.emro.who.int/docs/IC_Meet_Rep_2014_EN_15646.pdf?ua=1">https://applications.emro.who.int/docs/IC_Meet_Rep_2014_EN_15646.pdf?ua=1</a>
	Lessons from transforming health services delivery: compendium of initiatives in the WHO European Region. 2016.	<a href="https://www.euro.who.int/en/health-topics/Health-systems/health-services-delivery/publications/2016/lessons-from-transforming-health-services-delivery-compendium-of-initiatives-in-the-who-european-region-2016">https://www.euro.who.int/en/health-topics/Health-systems/health-services-delivery/publications/2016/lessons-from-transforming-health-services-delivery-compendium-of-initiatives-in-the-who-european-region-2016</a>

Other useful tools or protocols or examples	Protocol- A mixed methods study to adapt and implement integrated mental healthcare for children with autism spectrum disorder	<a href="https://pubmed.ncbi.nlm.nih.gov/30976456/">https://pubmed.ncbi.nlm.nih.gov/30976456/</a>
	Protocol- Assessment of patient experience and service provision culture A Guide to Clinic Ethnography	<a href="https://www.gmu.ac.uk/media/6649/a-guide-to-clinic-ethnography-ruht-march-2019.pdf">https://www.gmu.ac.uk/media/6649/a-guide-to-clinic-ethnography-ruht-march-2019.pdf</a>
	Users questionnaire- Questionnaire for Care Continuity across Care Levels	<a href="http://www.consorti.org/media/upload/axius/publications/Questionnaire%20CAENA%20English.pdf">http://www.consorti.org/media/upload/axius/publications/Questionnaire%20CAENA%20English.pdf</a>
	Measure patient experience (Survey)- Development of a survey instrument to measure patient experience of integrated care	<a href="https://pubmed.ncbi.nlm.nih.gov/27250117/">https://pubmed.ncbi.nlm.nih.gov/27250117/</a>
	Measure service coordination (Survey)- Coordination between primary care, hospitals and long-term care services	<a href="http://www.consorti.org/media/upload/axius/publications/questionnaire_COORDENA%20CAT%20Questionnaire_EN.pdf">http://www.consorti.org/media/upload/axius/publications/questionnaire_COORDENA%20CAT%20Questionnaire_EN.pdf</a>
	Private sector- Private sector landscape in mixed health systems	<a href="https://www.who.int/publications/i/item/private-sector-landscape-in-mixed-health-systems">https://www.who.int/publications/i/item/private-sector-landscape-in-mixed-health-systems</a>
	Example- Characterizing the Use of Research-Community Partnerships in Studies of Evidence-Based Interventions in Children's Community Services	<a href="https://pubmed.ncbi.nlm.nih.gov/25578512/">https://pubmed.ncbi.nlm.nih.gov/25578512/</a>
	Example- Acceptability and feasibility of delegating HIV counseling and testing for TB patients to community health workers in the Philippines: a mixed methods study	<a href="https://pubmed.ncbi.nlm.nih.gov/30760257/">https://pubmed.ncbi.nlm.nih.gov/30760257/</a>

# Integrating NCD service

A complex process

Addressing social determinants of health and increasing co- and multimorbidity

Integration in different settings and income levels

Tailoring the guidance to national and local contexts

Monitoring and evaluation, Implementation research

## Acknowledgement

**Q/A for the guidance,  
contribution towards  
appraisal through survey**

[xuh@who.int](mailto:xuh@who.int)

**Country application and  
support**

[waganivalut@who.int](mailto:waganivalut@who.int)

[oakala@who.int](mailto:oakala@who.int)

[hogendorfm@who.int](mailto:hogendorfm@who.int)

# From Siloes to Synergies: Integrating NCD prevention and care into global health initiatives and UHC

**Emma Feeny**

Director of Global Advocacy & Policy  
Engagement

The George Institute for Global Health



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Department for  
Noncommunicable Diseases



# From Siloes to Synergies: Integrating NCD prevention and care into global health initiatives and UHC

Emma Feeny, Director, Global Advocacy and Policy Engagement  
The George Institute for Global Health  
WHO NCD HardTalks, 22 September 2021



# SETTING THE SCENE

NCDs: World's most prevalent diseases but not yet embedded in primary health care or universal health coverage

High prevalence of NCDs has increased mortality and morbidity in people with COVID-19

**Major policy opportunity** with inclusion of ground-breaking target in [Political Declaration](#) adopted at the HLM on HIV/AIDs

NCD Alliance commissioned report via The George Institute for Global Health, supported by Helmsley Charitable Trust

Methodology: Online survey (182 people), stakeholder consultation, literature review, and case studies from Kenya, Malawi and Zambia



FROM SILOES TO SYNERGIES:

**Integrating noncommunicable disease prevention and care into global health initiatives and universal health coverage**

Policy Research Report

The  
George  
Institute  
for Global Health

 **NCDAlliance**

# FINDINGS – BARRIERS TO INTEGRATION

Old ways of thinking / political ambivalence

Staffing in silos: Cannot provide integrated, person-centred care

Weak health system organisation / capacity

Previous integration efforts not equitable, sustainable, or focused on disease prevention





# WHY INTEGRATION WORKS: THE EVIDENCE

Integrated services have been shown to:

- **Increase access** to specialist care for underserved groups
- **Increase retention in care** and effectiveness for both HIV and NCD care streams
- **Reduce the disease burden**/impact of disease for those accessing HIV/NCD services
- **Increase detection and diagnosis** of NCDs among groups living with other diseases
- **Increase user satisfaction and trust** in services across a range of settings
- **Be cost-effective** (eg. gestational diabetes / regular MNCH services) – more studies needed



For people living with HIV already attending AMPATH's clinics, incorporation of NCD services has been found to increase long-term adherence to care schedules and improve patient retention.

# CASE STUDY: KENYA



## AMPATH:

Integrating HIV/AIDS and Diabetes Care in Western Kenya

## LOCATION:

Eldoret, Kenya

## TARGET POPULATION:

3.5 million people

## IMPLEMENTATION PARTNERS:

Kenya Ministry of Health, Moi University, Moi Teaching and Referral Hospital, AMPATH Consortium of North American universities and health centres, led by Indiana University

## FUNDING AND IN-KIND SUPPORT:

USAID, National Institutes of Health, US Centers for Disease Control and Prevention, Bill & Melinda Gates Foundation, AstraZeneca, Boehringer Ingelheim, Eli Lilly and Company, Merck, Pfizer, Takeda, The World Bank

## HOW TO GET THERE

**AMPLIFY VOICES:** Put experiences of people living with NCDs centre-stage by involving them in design processes and giving a platform to share experiences

**STRONGER RELATIONSHIPS:** Buy-in among wide range of disease-focused stakeholders and communities will be key to sustainable integration efforts

**PROGRAMME DESIGN:** Integration is key in the design process, with strong vision for whole-of-person-care and people-centred health systems

**STRONGER HEALTH SYSTEMS:** Shift towards integrated data management systems, effective referral pathways, and a skilled workforce with supplies/medicines to respond to whole-of-person-care



## Links

[Policy Research Report - From Siloes to Synergies: Integrating noncommunicable disease prevention and care into global health initiatives and universal health coverage | NCD Alliance](#)

[Brief for decision-makers - From Siloes to Synergies: Integrating noncommunicable disease prevention and care into global health initiatives and universal health coverage | NCD Alliance](#)

Feedback welcome! [nrenshaw@ncdalliance.org](mailto:nrenshaw@ncdalliance.org)



FROM SILOES TO SYNERGIES:

Integrating noncommunicable disease prevention and care into global health initiatives and universal health coverage

Policy Research Report

The  
George  
Institute  
for Global Health

 NCDAlliance

# THANK YOU

**SHARE. DISCUSS. ENGAGE. CHANGE.**



**#NCDs @ncdalliance**



**MAKING NCD PREVENTION AND CONTROL A PRIORITY, EVERYWHERE**

**[ncdalliance.org](https://ncdalliance.org)**



# Understanding NCD integrated service delivery and implementation strategies in LMICs

## Dr Gene Bukhman

Associate professor of Global Health and Social Medicine, Harvard Medical School

Associate professor of Medicine, Brigham and Women's Hospital

Lancet NCDI Poverty Commission



World Health  
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Noncommunicable Diseases



**BRIGHAM HEALTH**



BRIGHAM AND WOMEN'S  
Center for Integration Science  
in Global Health Delivery



# Integration Science and NCD Service Delivery Optimization

WHO NCD Hard Talks • 21 September 2021

Gene Bukhman



Program in Global NCDs  
and Social Change  
HARVARD MEDICAL SCHOOL



# Primary Health Care on the Road to Universal Health Coverage

## 2019 GLOBAL MONITORING REPORT

**FIGURE 1.1** The UHC service coverage index (SCI): summary of tracer indicators and computation

### Reproductive, maternal, newborn and child health

1. Family planning (*FP*)
2. Antenatal care, 4+ visits (*ANC*)
3. Child immunization (*DTP3*)
4. Careseeking for suspected pneumonia (*Pneumonia*)

$$RMNCH = (FP \cdot ANC \cdot DTP3 \cdot Pneumonia)^{1/4}$$

### Infectious disease control

1. TB effective treatment (*TB*)
2. HIV treatment (*ART*)
3. Insecticide-treated nets (*ITN*)
4. At least basic sanitation (*WASH*)

$$Infectious = (ART \cdot TB \cdot WASH \cdot ITN)^{1/4}$$

if high malaria risk

$$Infectious = (ART \cdot TB \cdot WASH)^{1/3}$$

if low malaria risk

### Noncommunicable diseases

1. Normal blood pressure (*BP*)
2. Mean fasting plasma glucose (*FPG*)
3. Tobacco nonsmoking (*Tobacco*)

$$NCD = (BP \cdot FPG \cdot Tobacco)^{1/3}$$



### Service capacity and access

1. Hospital bed density (*Hospital*)
2. Health worker density (*HWD*)
3. IHR core capacity index (*IHR*)

$$Capacity = (Hospital \cdot HWD \cdot IHR)^{1/3}$$

$$UHC \text{ service coverage index} = (RMNCH \cdot Infectious \cdot NCD \cdot Capacity)^{1/4}$$

**Note:** For more detail on UHC SCI calculation methods, see Annex A1.2.



# Primary Health Care on the Road to Universal Health Coverage

## 2019 GLOBAL MONITORING REPORT

4. At least basic sanitation (WASH)

### Noncommunicable diseases

1. Normal blood pressure (*BP*)
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### Service capacity and access

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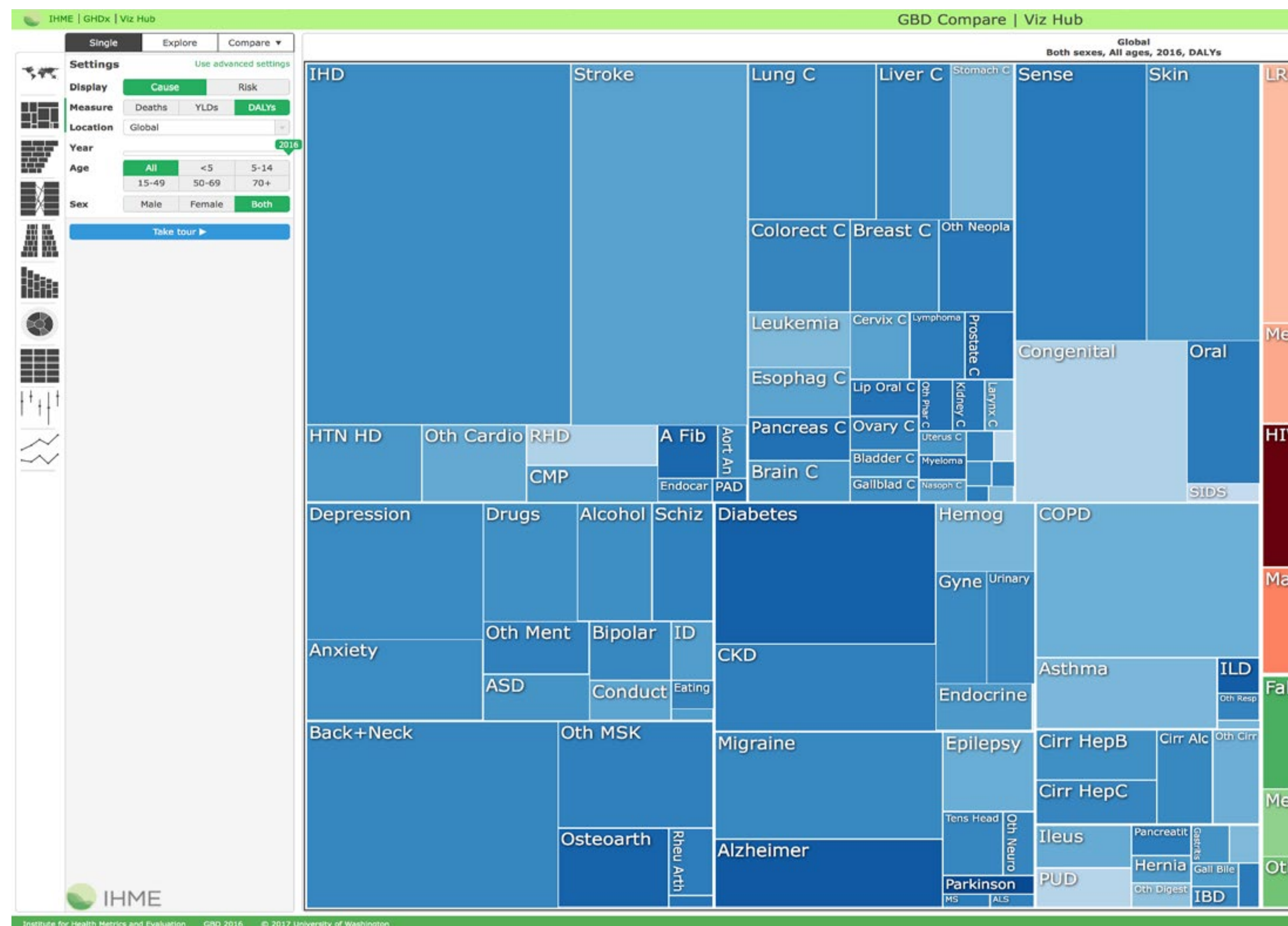
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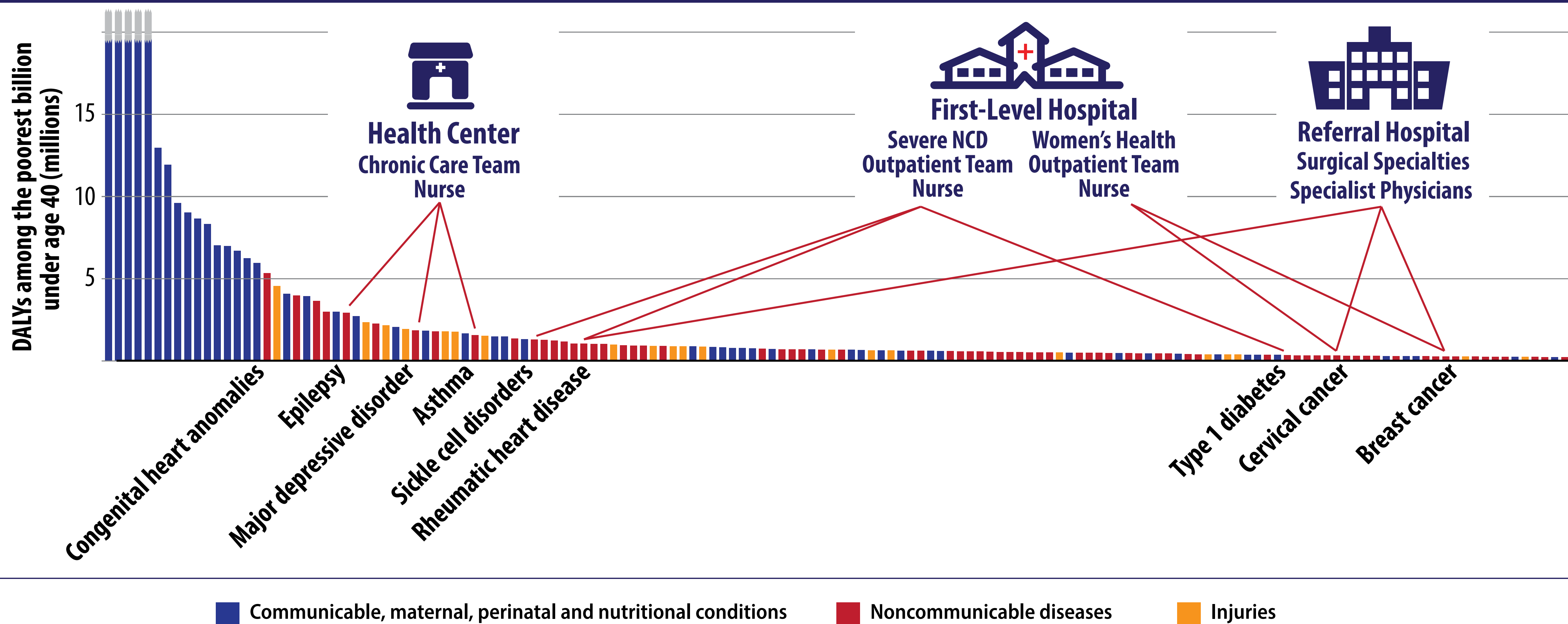


# NCD(I)s in Global Burden of Disease include:

- CVD
- Neoplasms
- CRD
- Diabetes
- Endocrine
- Renal
- Gastrointestinal
- Musculoskeletal
- Mental, Neurological & Substance Abuse
- Sense organ
- Skin
- Congenital
- Hematological
- Oral
- Injuries



## Some examples of packaging integrated services to address the “Long Tail” of NCDs



# Principles of planning for the “long tail”

Some examples of packaging integrated services to address the “Long Tail” of NCDs

- **Leverage**  
inefficiencies in existing space and staffing
- **Decentralize**  
progressively
- **Optimize clustering**  
of related services around shared competencies

DALYs among the poorest billion  
under age 40 (millions)



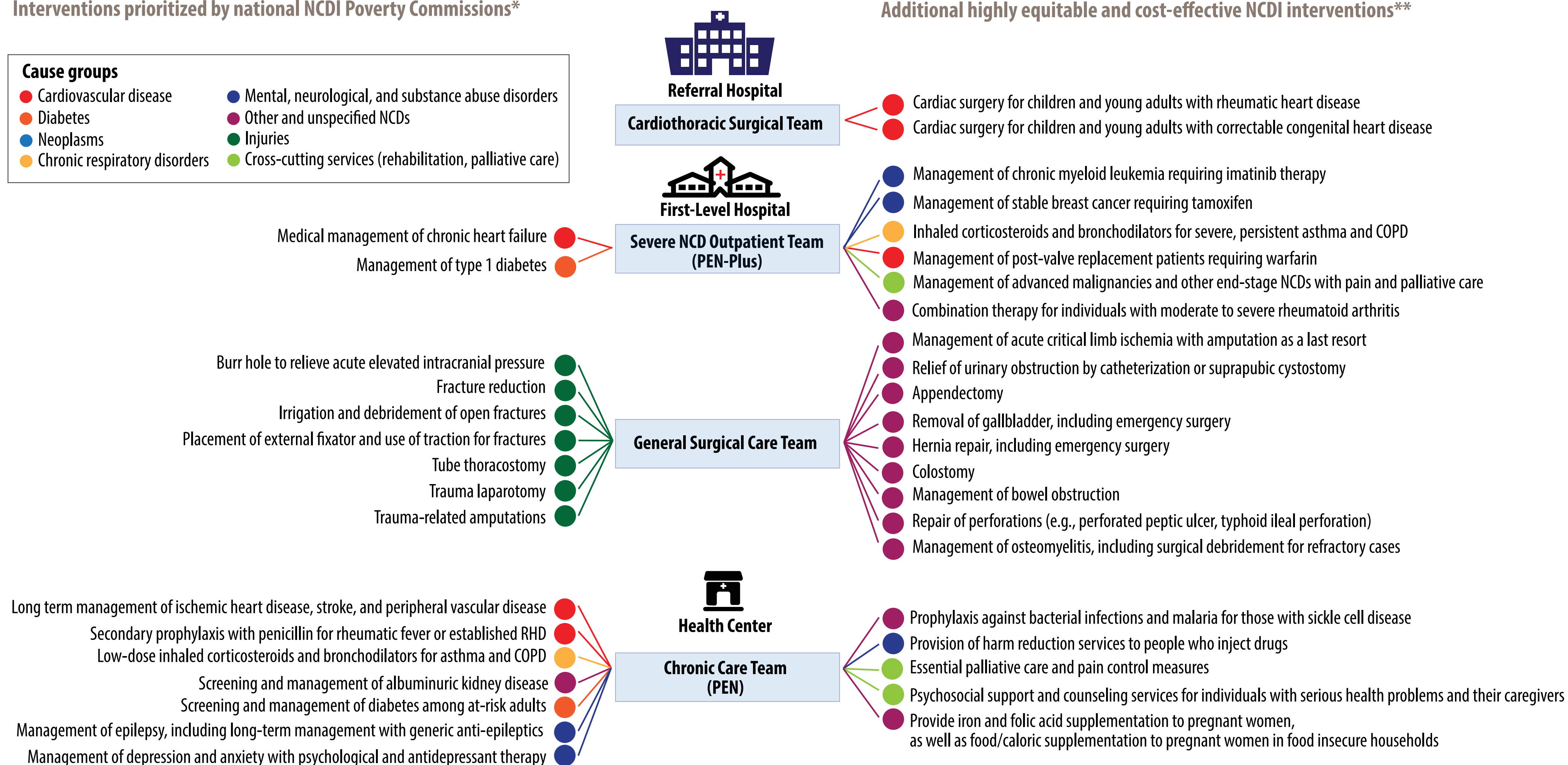


# Examples of selected ICTs at different levels of the health system

## Interventions prioritized by national NCDI Poverty Commissions\*

### Cause groups

- Cardiovascular disease
- Diabetes
- Neoplasms
- Chronic respiratory disorders
- Mental, neurological, and substance abuse disorders
- Other and unspecified NCDs
- Injuries
- Cross-cutting services (rehabilitation, palliative care)





# Provisional definition of “integration science”

*Integration science in global health delivery is the study of delivery model design, including optimal clustering of tasks among providers, and interfaces within and outside of the health system.*

*Integration science is the missing link between evidence-based interventions, health-sector priority setting, and implementation.*

# Toward a typology of integrated service delivery

Dimension	Types identified
Health system level	Community Health center Secondary level facility Outpatient Inpatient Tertiary level facility Outpatient Inpatient Specialty outpatient clinic
Urban or rural	Urban Rural Peri-urban Mixed
Scale	Single center Small to medium scale Large scale National Multi-country
Institution	Private Public Public (with external funding) Nongovernmental organization (NGO) Faith-based organization (FBO)
Integration type	New care delivery teams Description of existing delivery models Task redistribution within existing delivery models New conditions integrated into existing delivery models New services integrated into existing delivery models New conditions and services integrated into existing delivery models
Primary provider	Lay staff HIV counsellor Social worker Traditional healer Community health worker (CHW) Midlevel provider Generalist physician Specialist physician No primary provider Multidisciplinary team Multi-cadre team

Dimension	Types identified
Patients' fee	Free Out of pocket Copay
Decentralization	No Yes
Task shifting	No Yes
Linkage	Counter-referral Referral
Mobile	No Yes (including community campaigns and mobile clinics)
Effort of primary provider	Part-time Full-time
Compensation of primary provider	Salaried Fee-for-service Volunteer
Service	Health promotion Health education Screening Referral Initial diagnosis Adherence support Peer group facilitation Acute care Home based care Home based visits Psychotherapy Medication dispensing Patient follow-up Monitoring Medication management
Condition category	Common chronic noncommunicable diseases (NCDs) Severe chronic NCDs Common neuropsychiatric (NP) Severe NP Chronic infection Acute infection Maternal and child health Conditions addressed through "primary health care" Sense organ

## Number and percentage of condition categories included in study models stratified by health system level

Condition category	Community (N=53) n (%)	Health center (N=87) n (%)	Secondary level (N=29) n (%)	Tertiary level (N=26) n (%)	Specialty outpatient clinic (N=8) n (%)
Common NCDs	32 (60)	58 (69)	20 (69)	13 (50)	6 (75)
Severe NCDs	12 (23)	6 (7)	14 (48)	10 (38)	2 (25)
Common NP	15 (28)	33 (38)	5 (17)	5 (19)	2(25)
Severe NP	6 (11)	9 (10)	1 (3)	1 (4)	1 (13)
Chronic infection	15 (28)	19 (22)	6 (21)	7 (27)	0
Acute infection	6 (11)	2 (2)	0	2 (8)	0
Maternal and child health	9 (17)	8 (9)	3 (10)	2 (8)	0
Primary health care	2 (4)	25 (29)	4 (14)	0	0
Sense organ	1 (2)	0	0	0	0

## Number and percentage of service type categories included in study models stratified by health system level

Service	Community (N=53) n (%)	Health center (N=87) n (%)	Secondary level (N=29) n (%)	Tertiary level (N=26) n (%)	Specialty outpatient clinic (N=8) n (%)
Health promotion	20 (38)	5 (6)	3 (10)	1 (4)	0
Health education	34 (64)	57 (66)	18 (62)	18 (69)	6 (75)
Screening	33 (62)	38 (44)	9 (31)	13 (50)	2 (25)
Linkage to care	37 (70)	54 (62)	14 (48)	13 (50)	2 (25)
Initial diagnosis	4 (8)	45 (52)	18 (62)	6 (23)	0
Adherence support	21 (41)	20 (23)	4 (14)	6 (23)	4 (50)
Peer group facilitation	5 (9)	3 (3)	1 (3)	1 (4)	1 (13)
Acute care	2 (4)	3 (3)	0	3 (12)	0
Home based care	3 (6)	0	0	0	0
Home visits	18 (34)	9 (10)	1(3)	2 (8)	0
Psychotherapy	4 (8)	11 (13)	2 (7)	5 (19)	1 (13)
Medication dispensing	12 (23)	55 (63)	24 (83)	14 (54)	4 (50)
Patient follow-up	11 (21)	48 (55)	18 (62)	12 (46)	5 (63)
Monitoring	12 (23)	35 (40)	15 (52)	11 (42)	4 (50)
Medication management	1 (2)	11 (13)	12 (41)	8 (31)	4 (50)

### Legend

- 1-20%
- 21-40%
- 41-60%
- 61-80%

## Number and percentage of primary provider categories included in study models stratified by health system level

Primary provider	Community (N=53) n (%)	Health center (N=87) n (%)	Secondary level (N=29) n (%)	Tertiary level (N=26) n (%)	Specialty outpatient clinic (N=8) n (%)
Traditional healer	0	1 (1)	0	0	0
Community health worker	26 (49)	3 (3)	0	0	0
Lay worker (e.g. primary school teacher)	5 (9)	0	1 (3)	0	0
HIV counsellor	2 (4)	0	0	1 (4)	0
Social worker	1 (2)	0	0	0	0
Pharmacist	1 (2)	0	0	1 (4)	0
Midlevel provider (e.g. nurse, clinical officer)	5 (9)	35 (40)	14 (48)	8 (31)	1 (13)
Generalist physician	0	24 (28)	7 (24)	2 (8)	0
Specialist physician	0	0	1 (3)	2 (8)	2 (25)
No primary provider					
– Multi-disciplinary team	1 (2)	5(6)	2 (7)	5 (19)	5 (63)
– Multi-cadre team	8 (15)	16 (18)	4 (14)	5 (19)	0
Not specified	4 (8)	2 (2)	0	0	0

## Number and percentage of integration types utilized in each model stratified by health system level

Integration type	Community (N=53) n (%)	Health center (N=87) n (%)	Secondary level (N=29) n (%)	Tertiary level (N=26) n (%)	Specialty outpatient clinic (N=8) n (%)
New care delivery teams	16 (30)	19 (22)	7 (24)	8 (31)	2 (25)
Descriptions of previously existing delivery models	10 (19)	7 (8)	3 (10)	3 (12)	2 (25)
Task distribution within existing delivery models	1 (2)	6 (7)	2 (7)	2 (8)	0
New conditions integrated into existing delivery models	13 (25)	22 (25)	10 (34)	6 (23)	0
New services integrated into existing delivery models	6 (11)	19 (22)	3 (10)	4 (15)	3 (38)
New services and conditions integrated into existing delivery models	7 (13)	13 (15)	4 (14)	3 (12)	1 (13)
Not specified	0	1 (1)	0	0	0

### Legend

- 1-10%
- 11-20%
- 21-30%
- 31-40%

# Integration in practice: Experience in Malawi

**Dr Beatrice Matanje**

Medical Director,  
Partners in Health/Abwenzi Pa Za Umoyo  
Malawi site, Neno



World Health  
Organization

Department for  
Noncommunicable Diseases



# Competencies required to implement integrated care

**Dr Viktoria Stein**

Co-Founder and Co-CEO

VM Partners Integrating Health and Care

Joint Editor-in-Chief, International Journal  
for Integrated Care



World Health  
Organization

Department for  
Noncommunicable Diseases

# Where's the money? Donor perspective on integrated service delivery

**Mr Austen Davis**

Senior Adviser

Department for Education and Global  
Health

Norwegian Development Agency



World Health  
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Noncommunicable Diseases

# MODERATED DISCUSSION/Q&A WITH OUR PANELISTS



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# Concluding remarks

**Dr Temo Waqanivalu**

Unit Head, Integrated Service Delivery  
NCD Department, WHO



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Thank you

Join us next month  
13 October 2021

**NCD Hard Talk:** HOW COVID-19 HAS  
AFFECTED NCD CONTROL IN CITIES

See link in chat

