

# Information session on Reaching Billion 1 and 2 and SDG3.4: NCDs in Primary healthcare and Universal Health Coverage also as a foundation for preparedness

Dr Bente Mikkelsen, NCDs Department

Tuesday 25 October 2022 from 14:00-15:30 CET



# Agenda

- 1 Welcoming remarks**  
**Dr Minghui Ren, ADG UCN, WHO**
- 2 Strengthening NCD Services through PHC and UHC including Tools and Guidance**  
**Dr Bente Mikkelsen, Director, NCD/HQ,**  
**Dr Suraya Dalil, Director, Special Programme on PHC, WHO**  
**Dr Rudi Eggers, Director IHS/HQ**
- 3 Country Case Study**  
**Dr Rajesh Pandav, WR Nepal**  
**Dr Benido Ipouma, Director NCD AFRO**
- 4 Moderated discussion with Member States**  
**Guy Fones, Head, GCM/NCD, WHO**
- 5 Wrap up and end of session**  
**Dr Bente Mikkelsen, Director, NCD Department, WHO**

# Welcoming Remarks

**Dr Minghui Ren, Assistant Director General UHC/Communicable & Noncommunicable Diseases, WHO, also on behalf of DDG Dr Jakab**



- 
- 1. NCD Services in PHC and UHC**
  - 2. Strengthening NCD services through PHC and UHC also as a foundation for Health Security: Tools and Guidance**
  - 3. Strengthening NCD services through PHC : Practice & Case Studies - UHC Partnership, NORAD NCD Flagship Initiative, PENplus, Preparedness**
  - 4. Political Engagement and Advocacy : Global Group of Heads of State on NCD, UN High Level Meeting on UHC**

# Why PHC and UHC for NCDs?

- The magnitude of the problem
- Lack of investment and financial protection for NCDs
- Preparedness and lessons learned from COVID-19
- Mandates to WHO
- Existing tools and ongoing normative and country work
- The need for recommendations
- How to measure the impact

# Invisible numbers

The true extent of **noncommunicable diseases**  
and what to do about them

Read the report

[https://www.who.int/publications/  
item/9789240057661](https://www.who.int/publications/item/9789240057661)

Access the NCD Data Portal

<https://ncdportal.org/>

# Data portal on NCDs

## Noncommunicable Diseases Data Portal

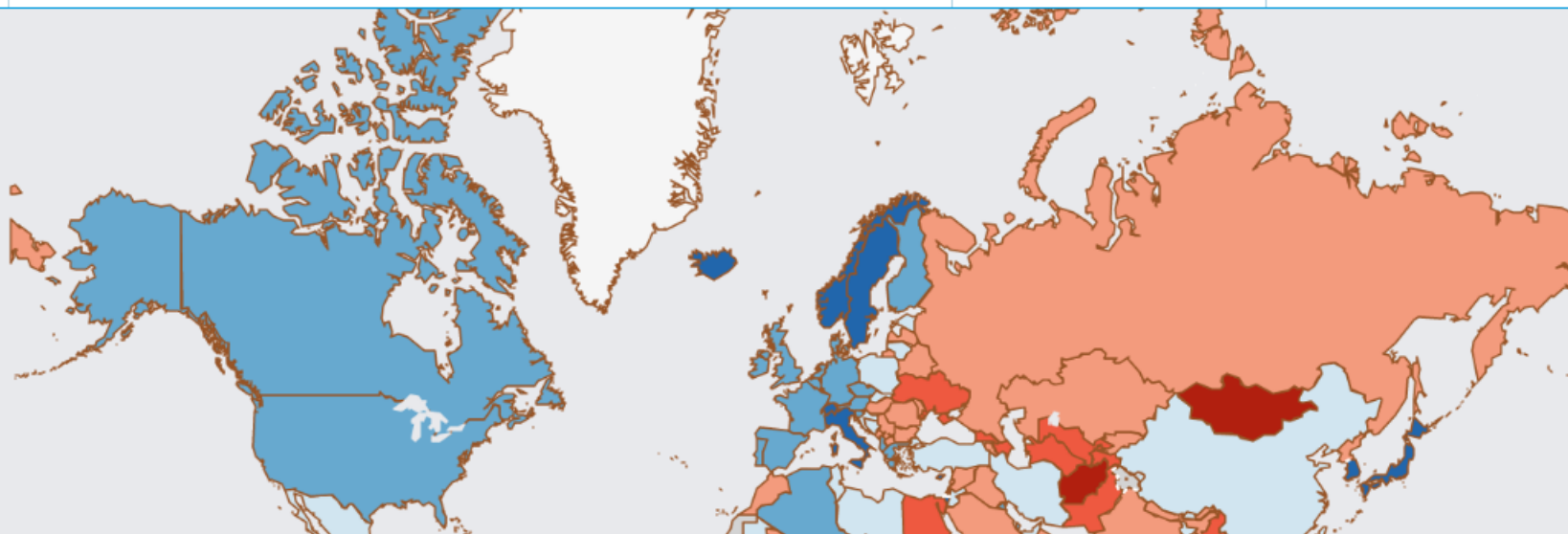
Noncommunicable diseases (NCDs) – chief among them, cardiovascular diseases (heart disease and stroke), cancer, diabetes and chronic respiratory diseases – cause nearly three-quarters of deaths in the world. Their drivers are social, environmental, commercial and genetic, and their presence is global. Every year 17 million people under the age of 70 die of NCDs, and 86% of them live in low- and middle-income countries.

Users can explore the data below by country, accessing detailed information on noncommunicable diseases and their key risk factors:

## Noncommunicable Diseases & Key Risk Factors

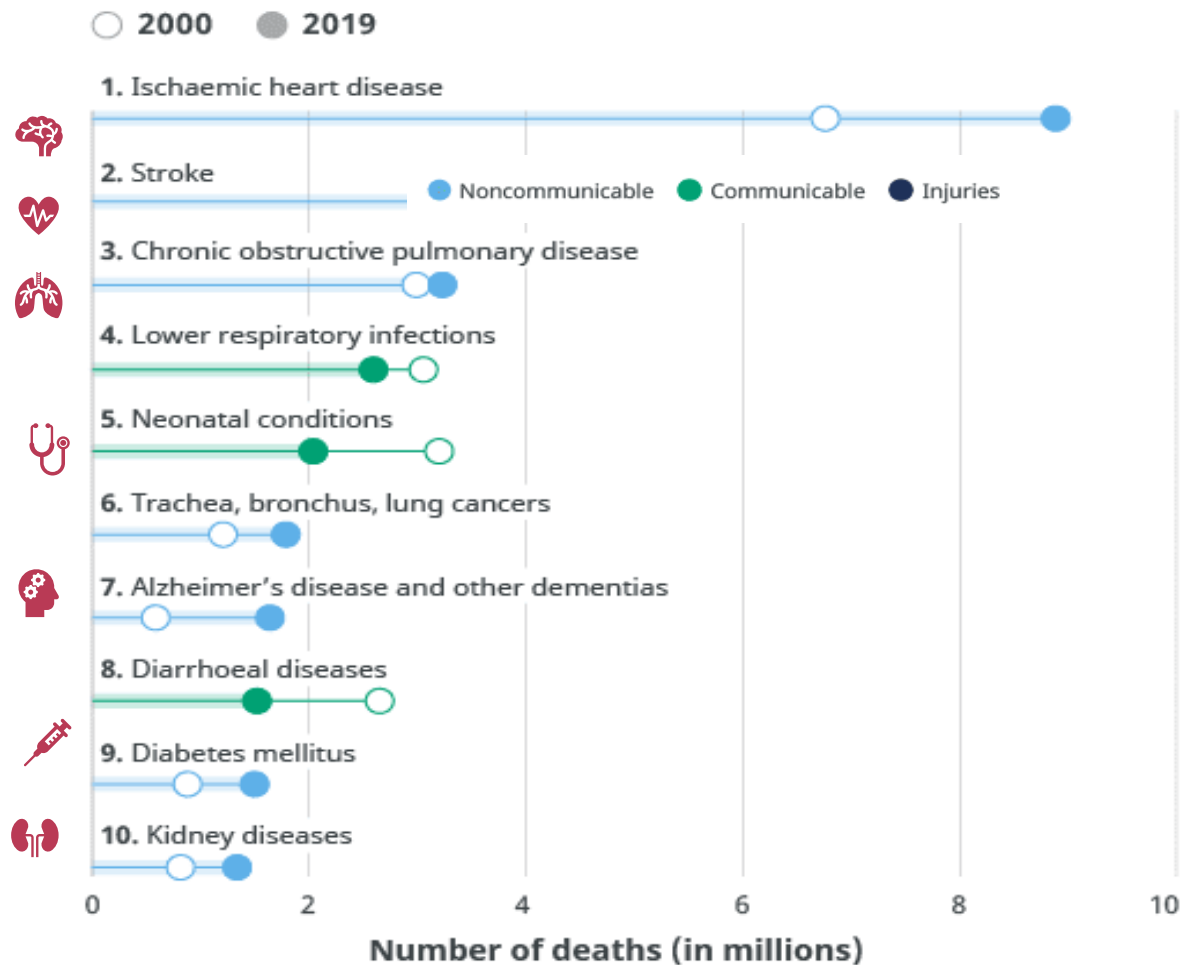
-  Cancer
-  Cardiovascular diseases (CVDs)
-  Chronic respiratory diseases (CRDs)
-  Diabetes
-  Harmful alcohol use
-  Obesity / Unhealthy diet
-  Physical inactivity
-  Tobacco use

Diseases & Risk Factors								Gender			Indicators	
 NCDs	 Alcohol	 Cancer	 CRDs	 CVDs	 Diabetes	 Obesity / Diet	 Physical Inactivity	 Tobacco	 Total	 Males	 Females	Probability of premature mortality ... ▾
Search country <input type="text"/>												



# NCDs are the leading causes of death worldwide

## Leading causes of death globally



74%

Together, all NCDs accounted for 74% of deaths globally in 2019



# NCDs are the leading causes of death worldwide

3/4 

Almost 3/4 of all deaths in the world are from an NCD



Cardiovascular diseases cause 1 in 3 deaths



Cancers cause 1 in 6 deaths



Chronic respiratory diseases cause 1 in 13 deaths



Diabetes causes 1 in 28 deaths

# Huge national inequalities remain in the likelihood of dying prematurely from a major NCD

30% likelihood

20% likelihood

10% likelihood

9%: Norway

29%: Cote d'Ivoire



**Living with  
breast cancer in  
Cote d'Ivoire**

# Countries are not on track to meet the SDG target on NCDs

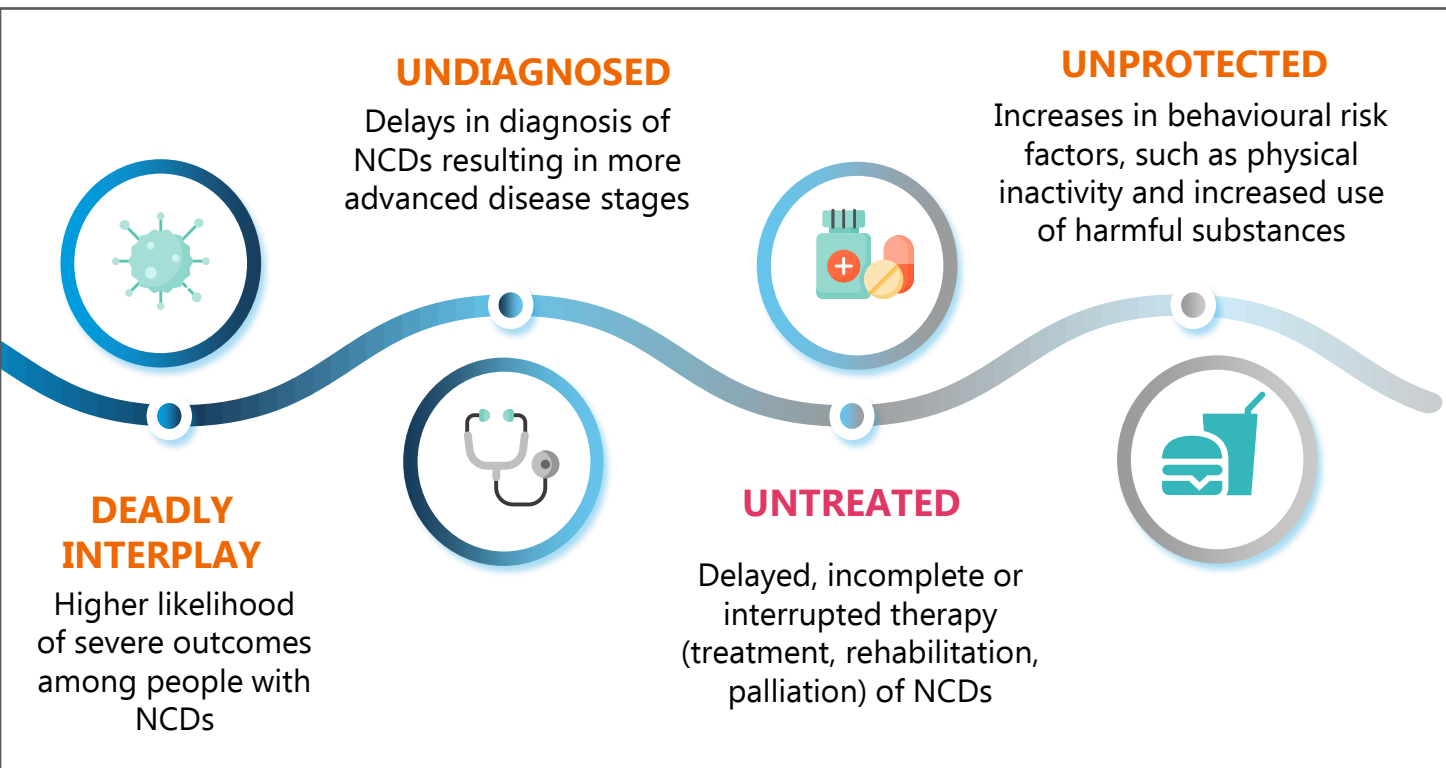
- If past trends continue, **only 14 countries will reach the SDG target** to reduce premature NCD mortality by a third.
- Yet with extra spending of **18 billion per year** -- equivalent to 0.6% of LMICs' gross national income per capita, **90% of LMICs could meet the target and prevent or delay 39 million deaths.**



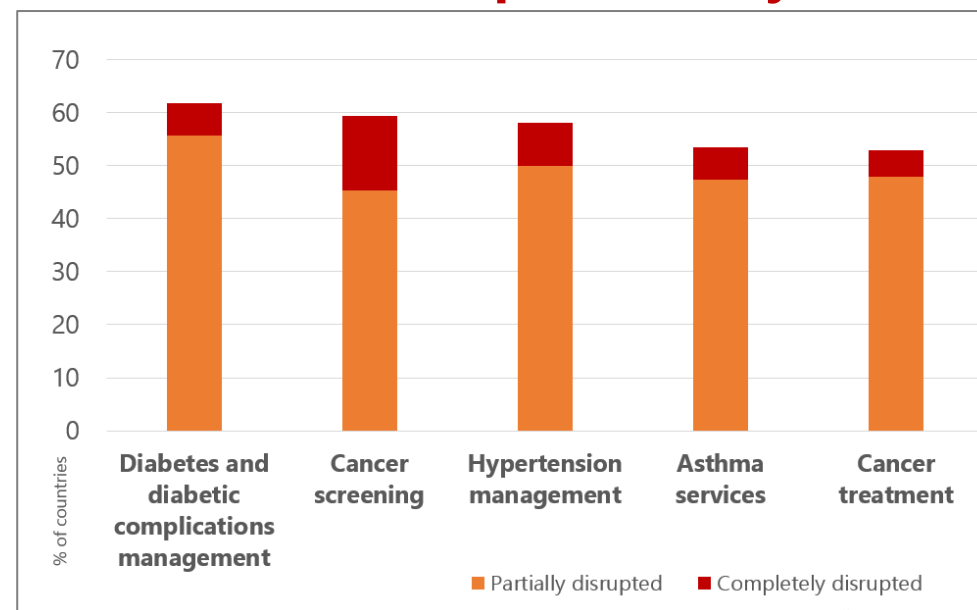
**With sufficient investment, 90% of LMICs could meet the SDG target to reduce premature deaths from NCDs by a third by 2030**

Data Sources: EB 150/7 (2022) and NCD Countdown 2030 collaborators (2022)

# Addressing NCDs in UHC will reduce future COVID-19 burden



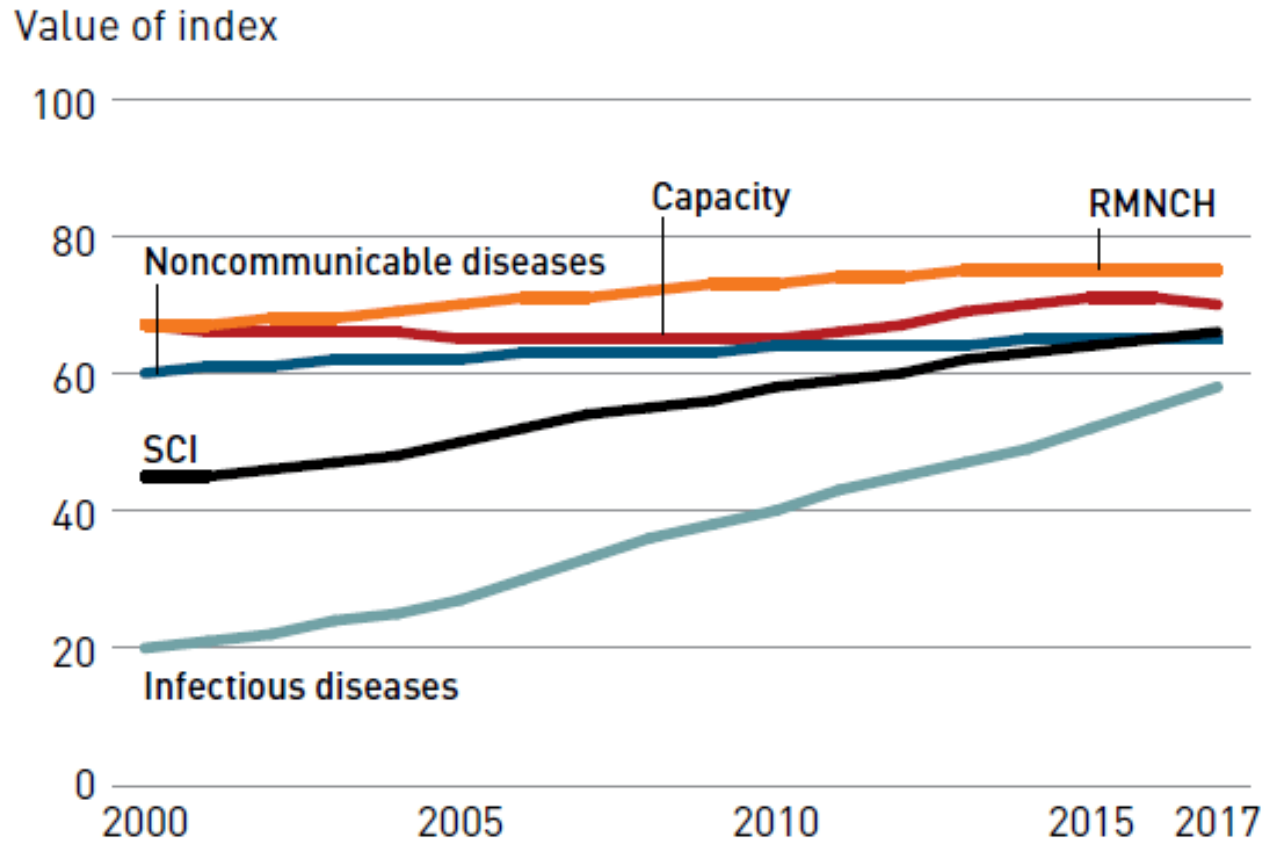
## 136 countries reported NCD services were disrupted in May 2020



“COVID-19 has **preyed on people with NCDs such as cancer**, cardiovascular disease, diabetes and respiratory disease. Globally, NCDs and their risk factors are increasing vulnerability to COVID-19 infection and the likelihood of worse outcomes, including in younger people. The pandemic has underscored the urgency of addressing NCDs and their risk factors.”



# NCD services are lagging behind



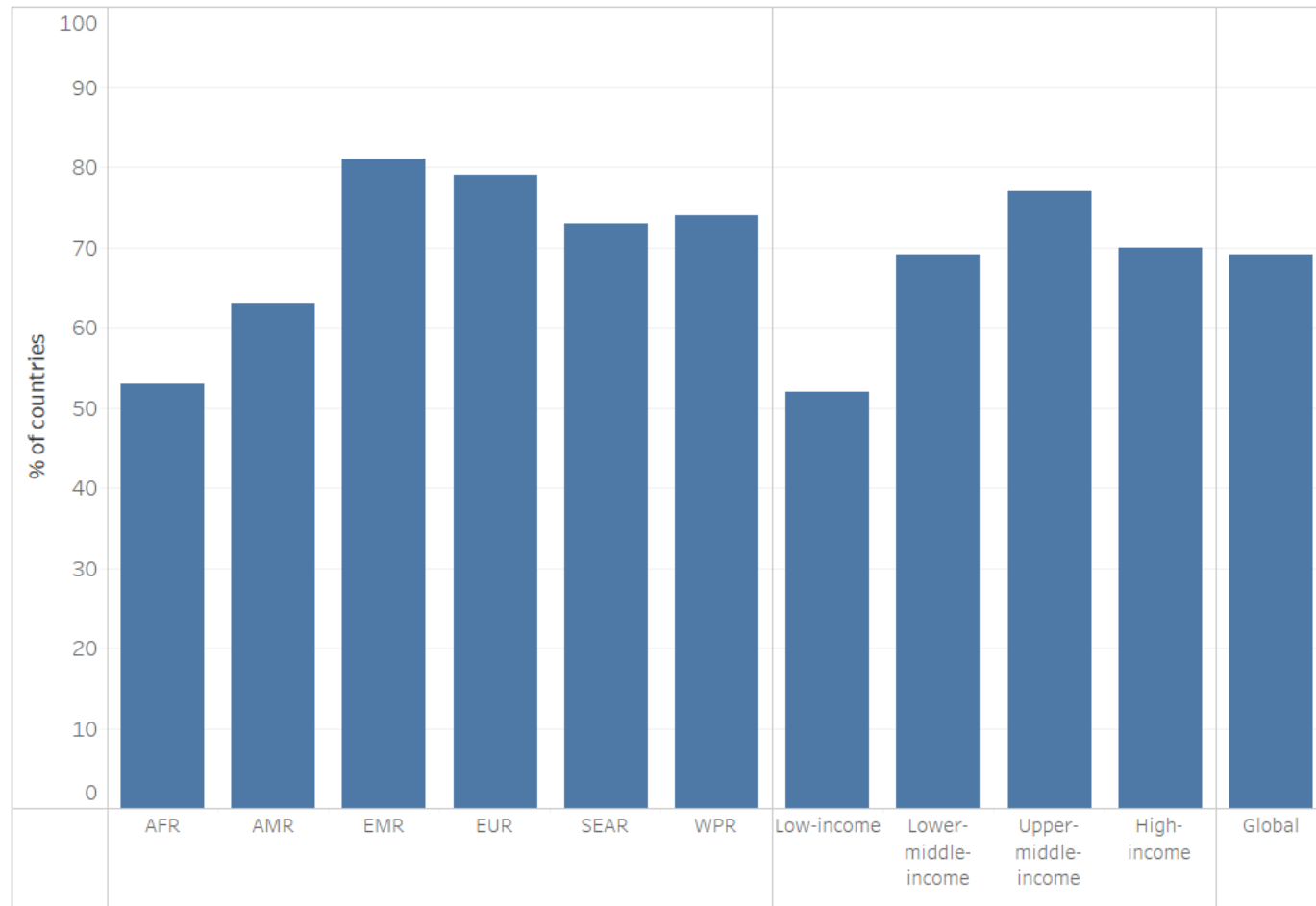
- Since 2000: rapid improvements in coverage of infectious diseases in UHC vs relatively little change on NCDs

## NCD Country Capacity Survey Data

Are NCD services included in your national essential package of health services or universal health coverage-priority benefits package?

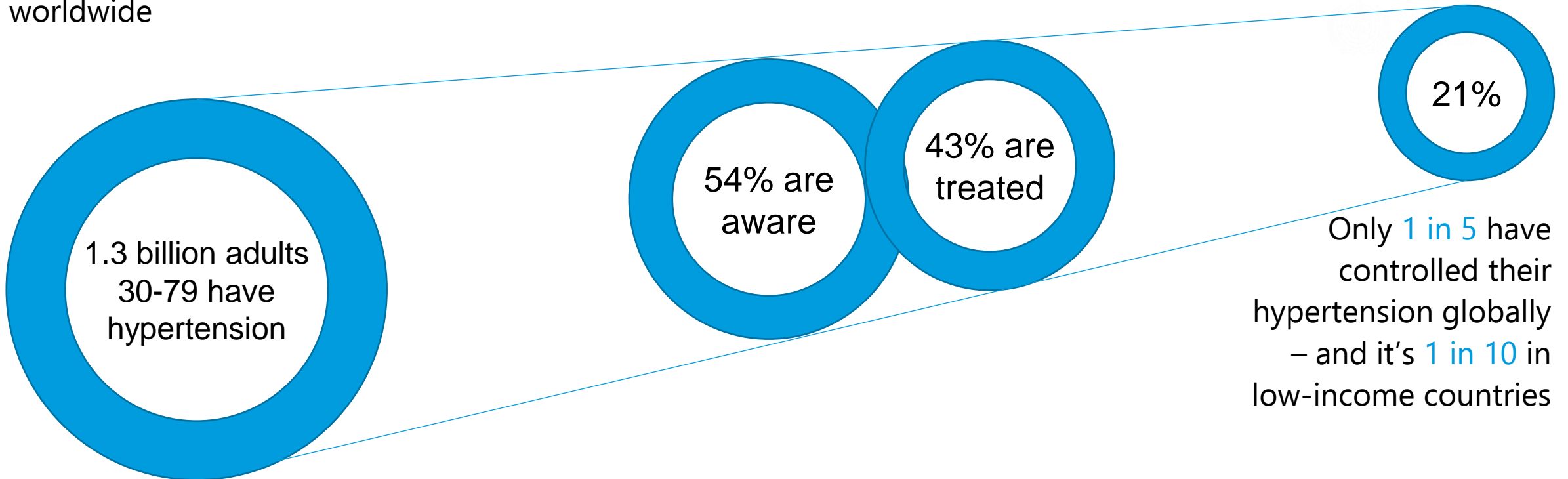
WHO CCS 2021

Percentage of countries with NCD services included in their national essential package of health services or universal health coverage-priority benefits package, by WHO region and World Bank income group



# Do the Health System respond to NCDs? NCD services are key to achieving UHC

**EXAMPLE:** High systolic blood pressure causes 54% of cardiovascular deaths worldwide



Data Sources: NCD-RisC (2021) and the 2019 Global Burden of Disease Study (2020).

# Lack of International investments and OOP expenditure – From MDGs to SDGs?



Only 5% of external aid for health goes to addressing NCDs in LMICs

**Catastrophic health expenditure** has been found to occur in more than 60% of some patient populations with non-communicable diseases (NCDs; cancer, cardiovascular disease, and stroke); large variations in such outcomes occur by disease and context

**Being uninsured increases the risk** of catastrophic health expenditure in patients with non-communicable diseases

Programmes to achieve universal health coverage need to adopt **compulsory pre-payment via taxes or national insurance contributions**

Cost-effectiveness and the targeting of the poorest groups need to be primary considerations in prioritising services that are included in insurance programmes to achieve universal health coverage

Addressing the household economic burden of NCDs is an important step in efforts to alleviate global poverty and achieve the UN's Sustainable Development Goals



# From MDG to SDG? Cancer and HIV as an example

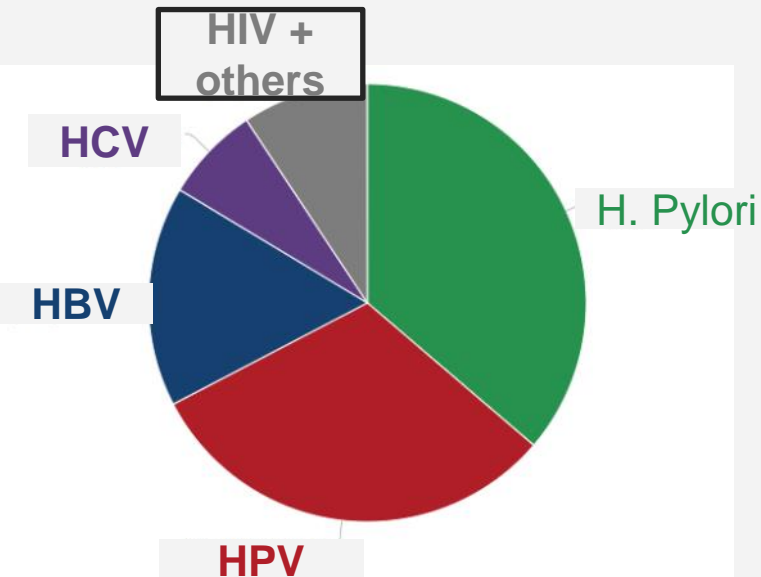
- Addressing infectious causes to reduce cancer burden

## Context

Women living with HIV with higher risk of cervical cancer

6x

Lower risk of clearing infection, faster progress to cancer, higher recurrence, younger age



## Emerging consensus

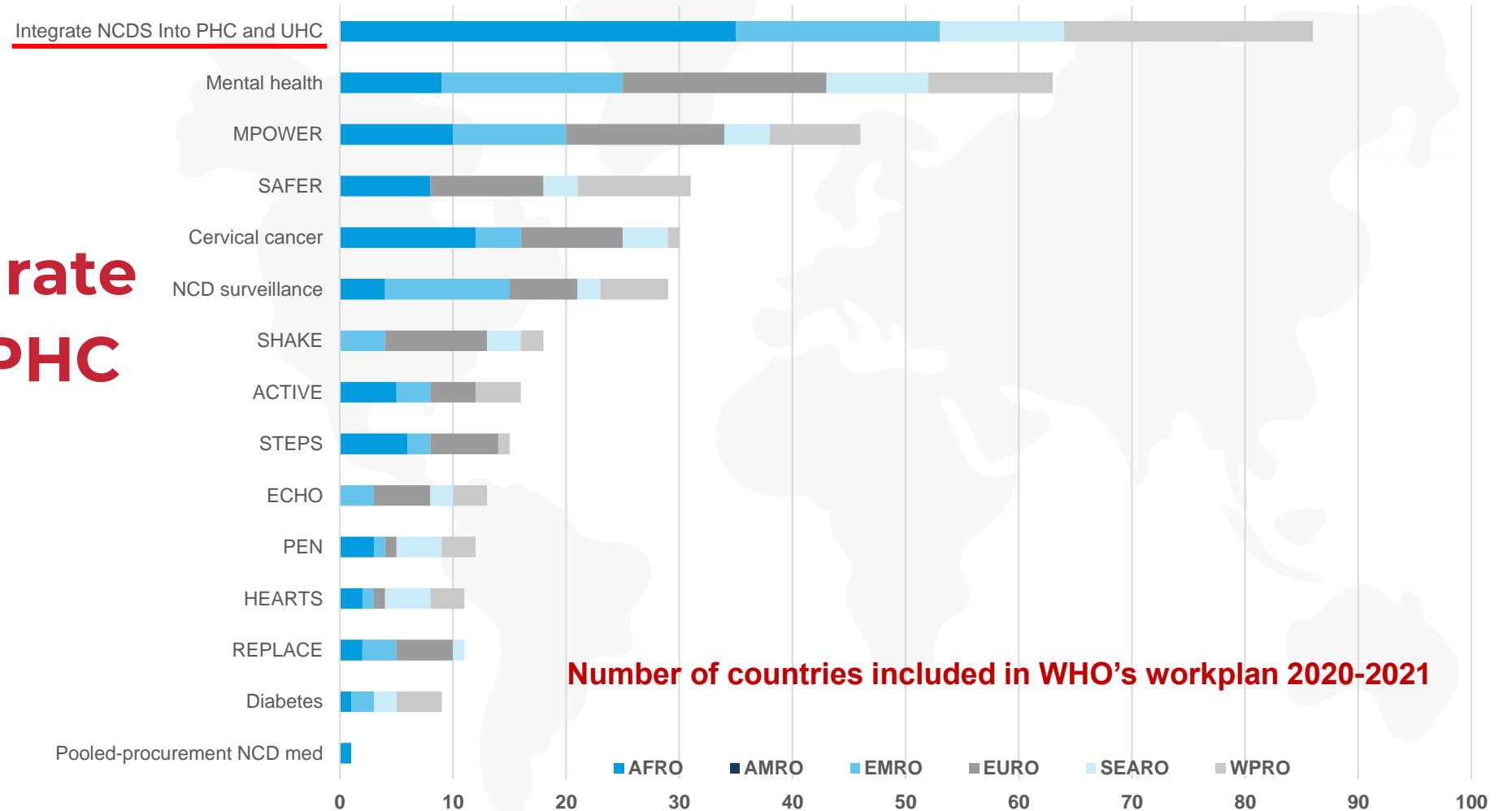
2015: Member States and stakeholders agree at The Global Fund Board to address the co-morbidities between HIV and cancer

HIV and Cervical cancer  
 Kaposi sarcoma  
 Non-Hodgkin lymphoma  
 Hodgkin lymphoma  
 Anal cancer  
 Liver cancer  
 Colorectal cancer  
 Prostate cancer  
 Breast cancer  
 Lung cancer  
 Liver disease

Global Fund Area	Universe of co-infections and co-morbidities	
	Co-infections	Co-morbidities
HIV	<b>Opportunistic infections<sup>ii</sup></b> Invasive candidiasis Isosporiasis Non-tuberculous mycobacteria Coccidioidomycosis <i>Pneumocystis jirovecii</i> pneumonia (PCP) Cryptococcal disease Tuberculosis	<b>AIDS-defining cancers<sup>iii</sup></b> Kaposi sarcoma Non-Hodgkin lymphoma Cervical cancer
	<b>Non-opportunistic infections<sup>v,vi</sup></b> Cryptosporidiosis Cytomegalovirus Toxoplasmosis Herpes simplex Histoplasmosis	<b>Non-AIDS defining cancers<sup>iv</sup></b> Hodgkin lymphoma Anal Liver Colorectal Prostate Breast Lung
	<b>Chronic diseases<sup>vii,viii</sup></b> Hepatitis B Hepatitis C Human papillomavirus Sexually transmitted infections Pneumonia and bacterial infections	Cardiovascular Liver Opiate addiction
TB	Pneumonia <sup>ix</sup> and bacterial infections <sup>x</sup>	Autoimmune disease Diabetes Silicosis Tobacco use Liver disease Diabetes <sup>xv</sup>
HIV and TB	Hepatitis Sexually transmitted infections <sup>xi,xii,xiii</sup>	Diabetes <sup>xv</sup> Liver disease Lung
HIV, TB, and Malaria	Helminths <sup>xv</sup> Leishmaniasis <sup>xvi,xvii</sup> Neglected tropical diseases <sup>xviii</sup>	Malnutrition <sup>xix,xxxi</sup>

# WHO Member States' Top Demands for technical assistance

**#1. To integrate NCDs into PHC and UHC**



# NCDs in Primary healthcare (PHC) and Universal Health Coverage (UHC)

## Some key Mandates

### **A/RES/73/2. Political declaration of the third high-level meeting of the General Assembly on the prevention and control of non-communicable diseases 2018**

39 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;

35 Strengthen health systems and reorient them towards the achievement of universal health coverage and improvement of health outcomes, and high-quality, integrated and people-centered primary and specialized health services for the prevention, screening and control of non-communicable diseases and related mental health disorders and other mental health conditions throughout the life cycle

### **A/RES/74/2 Political Declaration of the High-level Meeting of the UN General Assembly on UHC 2019**

24. “progressively cover all people by 2030 with quality essential health services and quality, safe, effective, affordable and essential medicines, vaccines, diagnostics and health technologies for the prevention, screening, early diagnosis and treatment of NCDs”.

33. Strengthen efforts to address NCDs, including cardiovascular diseases, cancer, chronic respiratory diseases and diabetes, as part of universal health coverage

### **WHA 74 Implementation Road Map 2023-2030 for the Global Action Plan for the Prevention and Control of NCD 2013-2030**

### **WHA69.24 resolution on “Strengthening integrated people-centered health services”**









**WHA74.5 resolution on oral health.** The resolution recommends that oral health should be firmly embedded within the noncommunicable disease agenda and that oral health-care interventions should be included in universal health coverage programmes.

# The power of PHC

- **75% of the projected health gains from the SDGs could be achieved through PHC;**
- **90% of essential UHC interventions can be delivered through PHC;**
- **Investing in PHC could increase life expectancy by up to 6.7 years by 2030.**
- PHC is the **most equitable and cost-effective way** to address comprehensive health needs close to people's communities and everyday environments.
- It includes essential public health functions and contributes to resilience.
- It is an approach (i.e. not just 'primary care' level) that underpins progressive realization of the full continuum of care across health programmes and diseases and levels of care.
- It is integrated, comprehensive, and relevant for countries at all income/development levels.

# Primary health care in practice

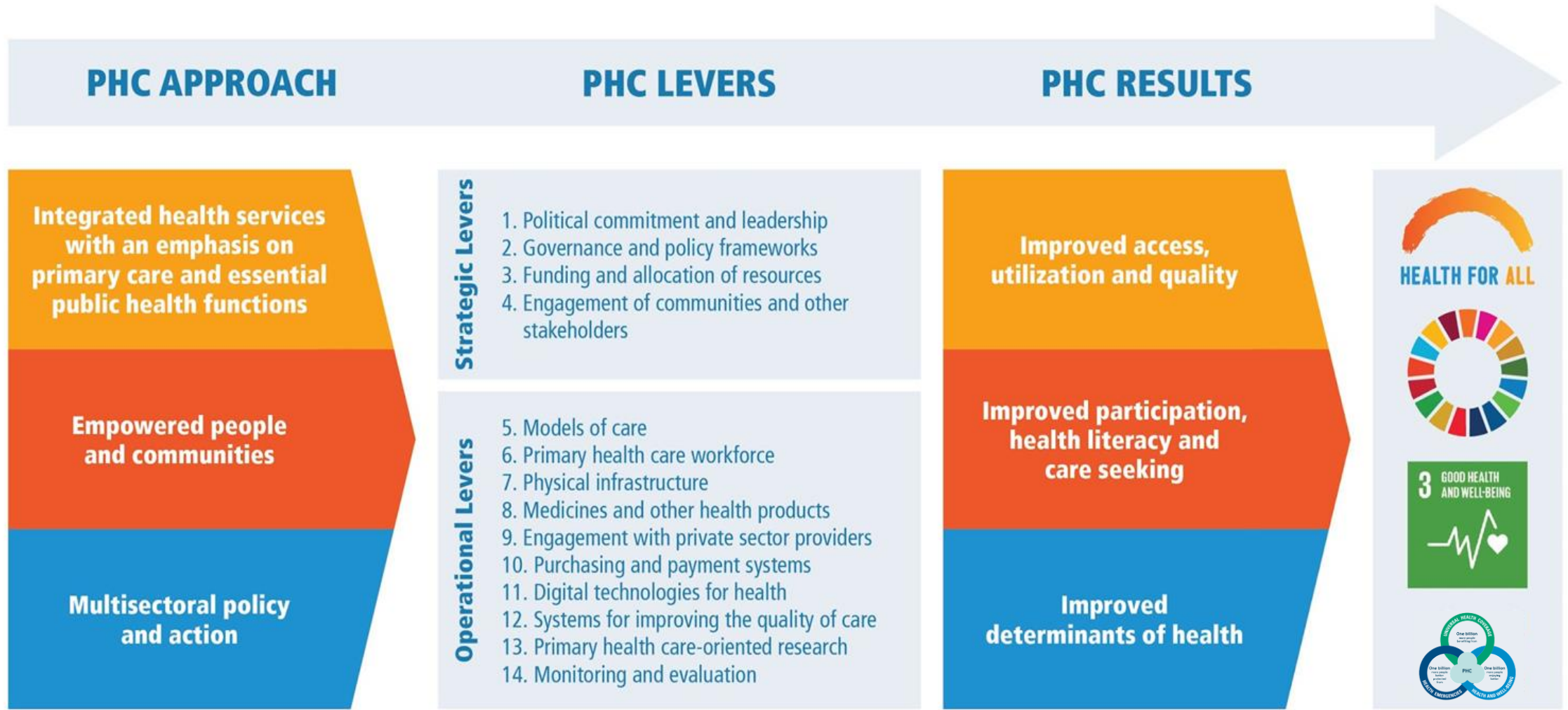
## What it is

<p>A <b>whole-of-society approach</b> to health that aims at ensuring the highest possible level of health &amp; well-being and its equitable distribution in the population</p>	<p>PHC provides better value for money than its alternatives, but still requires <b>considerable investment</b>.</p>	<p>Dealing with the <b>health of everyone</b> in the community</p>	<p>A <b>comprehensive response</b> to people's health needs and expectations, including promotion of healthier lifestyles and mitigation of the health effects of social and environmental hazards</p>	<p>A <b>health system wide approach</b> to address the health needs and preferences of populations, while maximizing effectiveness, efficiency and equity of health outcomes</p>	<p>Institutionalized participation of <b>civil society, communities and people</b> in policy dialogue, accountability, health system management and in decisions about their health care, with improved health literacy</p>	<p><b>Integrated and people-centered health services</b> encompassing all levels and settings of care, focusing on primary care as coordinator</p>	<p><b>Teams of health workers with an appropriate skill mix</b> facilitating access to comprehensive health services and appropriate use of technology and medicines</p>
							
<p>A basic package of health interventions and essential drugs for the poor</p>	<p>PHC is cheap and requires only a modest investment</p>	<p>Concentration on specific populations (i.e. mother &amp; child health only)</p>	<p>Focus on a small number of selected diseases, primarily infectious and acute (i.e. HIV care alone)</p>	<p>An exclusive focus on primary care services (first-level care) missing out on the opportunities of wider health system alignment, multisectoral action and community engagement and empowerment</p>	<p>People and communities are passive recipients of health services without a voice on health matters</p>	<p>Primary care working in isolation from sub-specialty care, in-patient hospital care, etc., without mechanisms for integration &amp; coordination</p>	<p>Volunteer, non-professional community health workers working in isolation with limited scope of practice, medicines and technologies</p>

## What it is not

Modified from Table 1 'How experience has shifted the focus of the PHC movement', WHR 2008 (WHO, 2008)

# Operational Framework for PHC



# Meeting the needs of people living with NCDs: Service Package Delivery and Implementation (SPDI) Toolkit

## UHCC SPDI tool

*Epidemiologic shift is one of the main drivers for new package development*

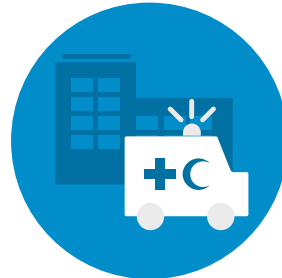
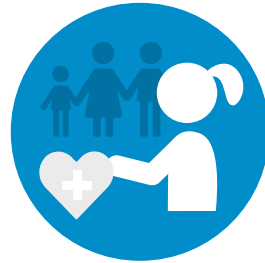


## Package implementation manual

*provides guidance on subnational management, community participation & monitoring*

## Primary and emergency care toolkits

*process protocols & clinical decision support for acute and chronic care for NCDs*



**Guidance on budgeting, purchasing, payment, and entitlement mechanisms**

*that support effective integrated service delivery*

**Models of Care Initiative**  
*promotes integration of health programs and optimizes movement across the health system*



## UHC Compendium Service Package Delivery & Implementation Tool

[More about UHCC](#)

[Contact us](#)

The Universal Health Coverage (UHC) Compendium of Health Interventions is a powerful database of health services designed to assist countries in making progress toward [UHC](#). The UHCC Selection Interface supports users to develop service and UHC packages that best fit country needs. The Selection Interface provides:

- A systematic approach to creating and revising national and sub-national packages
- A structured architecture that facilitates a stepwise approach to service selection
- Detailed data on resource requirements, WHO guidelines, and country-specific priorities
- Tools to support planning and tracking progress
- A system to map services to delivery platforms, facilitating the integration of services across the health system

### My Projects

New



Liberia EPHS II



Copy of EMRO EHS 2022 - Comment



High-Priority Health Services in Humanitarian Settings (H3)



Somalia 2020





# A systematic approach to prioritizing services and resources to meet the needs of people living with NCDs

1

A structured architecture supports a systematic approach to selection

2

Each intervention contains a comprehensive list of actions (services)

3

Each action linked to detailed resources

4

Services linked to cost & cost-effectiveness bundles

The screenshot displays the UHC Compendium interface for Sierra Leone BPEHS - 2022, specifically for Diabetes mellitus. The interface is organized into a structured architecture with the following elements:

- UHC Compendium** header with navigation options: [Package](#) and [Configuration](#).
- Breadcrumb navigation: [Home](#) > [Noncommunicable diseases and mental health](#) > [Endocrine, metabolic, and autoimmune disorders](#) > [Diabetes mellitus](#).
- Diabetes mellitus** main heading with an [Export](#) button.
- A list of actions (services) for Diabetes mellitus:
  - Prevention for diabetes mellitus**: No core actions configured.
  - Screening and diagnosis of diabetes mellitus**: 1 of 3 core actions included.
  - Longitudinal management of diabetes mellitus**: 1 of 11 core actions included. A red arrow points to this action.
  - Management of hyperglycaemic and hypoglycaemic emergencies**: No core actions configured.
- Comments** section: 0 comments, with an [Add Comment](#) button.
- Footer navigation: [CEA bundles](#) and [WHO sub-packages](#), with a [Show all](#) button.

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The screenshot displays the UHC Compendium interface for configuring services for Diabetes mellitus. The breadcrumb trail is: Home > Noncommunicable diseases and mental health > Endocrine, metabolic, and autoimmune disorders > Diabetes mellitus. The main heading is "Diabetes mellitus" with a flag icon and a green checkmark. There are three main intervention categories:

- Prevention for diabetes mellitus: No core actions configured.
- Screening and diagnosis of diabetes mellitus: 1 of 3 core actions included.
- Longitudinal management of diabetes mellitus: 1 of 11 core actions included.

The "Longitudinal management of diabetes mellitus" section is expanded, showing a table of actions with configuration options:

	COM	PRE	OPT	1RL	2RL	MCHP	
Condition-specific nutrition assessment and counselling	●	●	●	●	●	●	⊗ →
Counselling on foot care	●	●	●	●	●	●	⊗ →
Oral hypoglycaemics for diabetic mellitus	●	●	●	●	●	●	⊗ →
Oral statins for diabetes mellitus	●	●	●	●	●	●	⊗ →

At the bottom, there are tabs for "CEA bundles" and "WHO sub-packages", and a "Show all" button.

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Services linked to cost & cost-effectiveness bundles

The screenshot displays a digital health interface with a structured approach to prioritizing services and resources for NCDs. The interface is organized into a hierarchy of actions and resources.

- Screening and diagnosis of diabetes mellitus** (1 of 3 core actions included)
- Longitudinal management of diabetes mellitus** (1 of 11 core actions included)
- Condition-specific nutrition assessment and counselling** (COM, PRE, OPT, 1RL, 2RL, MCHP)
- Counselling on foot care** (COM, PRE, OPT, 1RL, 2RL, MCHP)
- Oral hypoglycaemics for diabetic mellitus** (COM, PRE, OPT, 1RL, 2RL, MCHP)

The **Oral hypoglycaemics for diabetic mellitus** action is expanded to show detailed resources:

- Tasks:** Prescribe oral hypoglycaemic medications (Health worker 1: General Medical Practitioners → Paramedical Practitioners; Health worker 2)
- Products:** Gliclazide, Metformin
- Medicines:** None
- Programmes:** Non-Communicable Disease, Primary care
- Included in:** WHO PEN (WHO Package of Essential Noncommunicable Disease), HEARTS
- Links:** World Health Organization (2013). Implementation tools Package of Essential Noncommunicable (PEN) disease interventions for primary health care in low-resource settings; WHO-PEN

The interface also includes a search bar for the action name (Oral hypoglycaemics for diabetic mellitus) and a "Change" button. At the bottom, there are tabs for "CEA bundles" and "WHO sub-packages", and a "Show all" button.

# A systematic approach to prioritizing services and resources to meet the needs of people living with NCDs

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- Screening and diagnosis of diabetes mellitus** (1 of 3 core actions included)
- Longitudinal management of diabetes mellitus** (1 of 11 core actions included)
- Condition-specific nutrition assessment and counselling**
- Counselling on foot care**
- Oral hypoglycaemics for diabetic mellitus**

Below the interventions, there are sections for **Tasks** (Prescribe oral hypoglycaemic medications) and **Products** (Gliclazide, Metformin). The interface also includes a **CEA bundles** section with a red arrow pointing to it, and a **WHO sub-packages** section. The **Actions included** section shows a list of actions with their status (e.g., 0 of 1, 1 of 1) and options to **Highlight**, **Include all**, **Exclude all**, and **Defer all**.

Action	Status	Options
Appendix 3 - Statin use in people with diabetes > 40years old	0 of 1	Highlight, Include all, Exclude all, Defer all
[additional] Diagnosis of diabetic retinopathy and longitudinal management with laser photocoagulation	1 of 1	Highlight, Include all, Exclude all, Defer all
[core] Diagnosis of diabetic neuropathy and management with footcare	1 of 1	Highlight, Include all, Exclude all, Defer all
[core] Diagnosis of diabetic nephropathy and management with medications	1 of 1	Highlight, Include all, Exclude all, Defer all
[core] Diagnosis of diabetic neuropathy and management with footcare	1 of 1	Highlight, Include all, Exclude all, Defer all

# Optimizing models of care to deliver for people living with NCDs

The screenshot displays the UHC Compendium interface for Sierra Leone BPEHS - 2022. The breadcrumb trail is: Home > Noncommunicable diseases and mental health > Cancers > Cervical cancer. The main heading is 'Cervical cancer' with a flag icon and a checkmark. Below this, there are two expandable sections: 'Prevention of cervical cancer' and 'Early detection, diagnosis and staging of cervical cancer'. The 'Early detection...' section is expanded, showing a table of actions. The table has columns for 'COM', 'PRE', 'OPT', '1R', '2R', and 'MCHP'. A red arrow points to the 'OPT' column for the first action, 'Counselling on self-sampled HPV-based screening test (at health facility)'. The 'OPT' cell contains a green dot, while the other cells in that row are grey. The 'PRE' column for the second action, 'Visual inspection with acetic acid (VIA)', also has a green dot. The 'MCHP' column for the third action, 'Cytology (pap smear or liquid-based cytology)', has a green dot. The 'COM' column for the fourth action, 'History and physical examination for and information on cervical cancer', has a green dot. The '1R' and '2R' columns for the fourth action have green dots. The 'MCHP' column for the fourth action has a green dot. The 'COM' column for the fifth action, 'Counselling on self-sampled HPV-based screening test (at health facility)', has a green dot. The 'PRE' column for the fifth action has a green dot. The 'OPT' column for the fifth action has a green dot. The '1R' column for the fifth action has a green dot. The '2R' column for the fifth action has a green dot. The 'MCHP' column for the fifth action has a green dot. The 'COM' column for the sixth action, 'Visual inspection with acetic acid (VIA)', has a green dot. The 'PRE' column for the sixth action has a green dot. The 'OPT' column for the sixth action has a green dot. The '1R' column for the sixth action has a green dot. The '2R' column for the sixth action has a green dot. The 'MCHP' column for the sixth action has a green dot. The 'COM' column for the seventh action, 'Cytology (pap smear or liquid-based cytology)', has a green dot. The 'PRE' column for the seventh action has a green dot. The 'OPT' column for the seventh action has a green dot. The '1R' column for the seventh action has a green dot. The '2R' column for the seventh action has a green dot. The 'MCHP' column for the seventh action has a green dot. The 'COM' column for the eighth action, 'History and physical examination for and information on cervical cancer', has a green dot. The 'PRE' column for the eighth action has a green dot. The 'OPT' column for the eighth action has a green dot. The '1R' column for the eighth action has a green dot. The '2R' column for the eighth action has a green dot. The 'MCHP' column for the eighth action has a green dot. The interface also includes an 'Export' button, 'CEA bundles', 'WHO sub-packages', and a 'Show all' button.

**1** Assign actions to context specific delivery platforms

**2** Defer actions if needed for when resources are more available

**3** Easily visualize actions found in reference packages to support decision making

# Optimizing models of care to deliver for people living with NCDs

UHC Compendium

Sierra Leone BPEHS - 2022 Package Configuration

Home > Noncommunicable diseases and mental health > Cancers > Cervical cancer

### Cervical cancer

Export

Prevention of cervical cancer No core actions configured

Early detection, diagnosis and staging of cervical cancer No core actions configured

	COM	PRE	OPT	1RL	2RL	MCHP
Counselling on self-sampled HPV-based screening test (at health facility)	●	●	●	●	●	●
Visual inspection with acetic acid (VIA)	●	●	●	●	●	●
Cytology (pap smear or liquid-based cytology)	●	●	●	●	●	●
History and physical examination for and information on cervical cancer	●	●	●	●	●	●

CEA bundles WHO sub-packages Show all

**1** Assign actions to context specific delivery platforms

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# Optimizing models of care to deliver for people living with NCDs

UHC Compendium

Sierra Leone BPEHS - 2022 Package Configuration

Home > Noncommunicable diseases and mental health > Cancers > Cervical cancer

Cervical cancer

Prevention of cervical cancer

Early detection, diagnosis and staging of cervical cancer

Reference packages

- Ghana EHSP 2022
- DCP3 - EUHC
- High-Priority Health Services in Humanitarian Settings (H3)

COUNSELLING ON SELF-SAMPLING (facility)

Visual inspection with acetic acid (VIA)

Cytology (pap smear or liquid-based cytology)

History and physical examination for and information on cervical cancer

CEA bundles WHO sub-packages

Show all

1

Assign actions to context specific delivery platforms

2

Defer actions if needed for when resources are more available

3

Easily visualize actions found in reference packages to support decision making

# Symptom-based algorithms with referral criteria

## Cough or difficulty breathing

**Give urgent attention to the patient with cough and any of the following:**

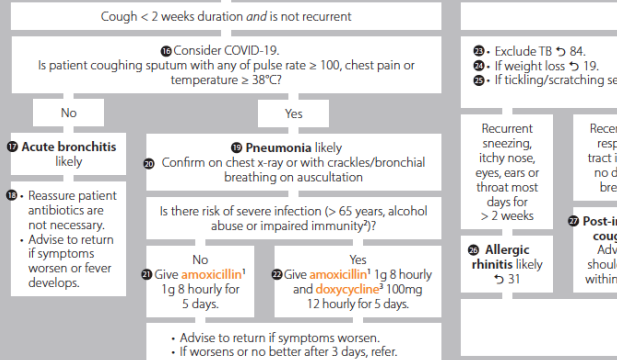
- Wheeze/tight chest → 37.
- Difficulty breathing worse on lying flat and leg swelling: heart failure likely → 115.
- Sudden breathlessness, more resonant/decreased breath sounds/pain on 1 side, deviated trachea BP < 90/60: tension pneumothorax likely.

**Manage and refer urgently:**

- If short of breath or oxygen saturation < 90%, give oxygen:
  - Ideally use nasal prongs, start 5L/min. If only facemask available, give 6-10L/min. Aim for oxygen saturation > 90%.
  - If patient remains distressed or oxygen saturation < 90%, give facemask oxygen with reservoir bag (no nasal prongs).
- If temperature ≥ 38°C, pneumonia likely: give **ceftriaxone<sup>1</sup> 1g IV/IM**.
- If rapid deep breathing, check glucose. If > 11mmol/L → 13.
- If tension pneumothorax likely:
  - Insert large bore cannula above 3rd rib in mid-clavicular line. Arrange urgent chest tube.
- If BP < 90/60, give **sodium chloride 0.9% 1L IV rapidly**, repeat until systolic BP > 90. Continue 1L 6 hourly.

**Approach to the patient with cough or difficulty breathing:**

- Test for HIV → 90. If HIV positive, send 1 sputum specimen for Xpert MTB/RIF. If on ART, refer to TB clinic.
- If patient smokes, encourage to stop → 123.



<sup>1</sup>If severe penicillin allergy (previous angioedema, anaphylaxis or urticaria), discuss with doctor. <sup>2</sup>Known with HIV, diabetes or cancer, pregnant.

## Dizziness

**Give urgent attention to the patient with dizziness and any of the following:**

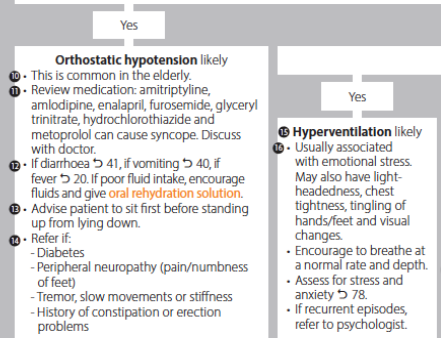
- If new sudden asymmetric weakness or numbness of face, arm or leg; difficulty speaking or visual disturbance: consider stroke or TIA → 116.
- Chest pain → 35
- Difficulty breathing, especially on lying flat and with leg swelling → 36
- Glucose < 3.3mmol/L
- BP < 90/60
- Pulse < 50 or irregular
- Recent head injury
- New sudden severe dizziness with nausea/vomiting, abnormal eye movements

**Management:**

- If BP < 90/60, give **sodium chloride 0.9% 500mL IV rapidly**, repeat until BP > 90/60.
- Refer same day.

**Approach:**

- Ask about ear symptoms. If present → 30. If hearing loss, refer same week.
- Ask about fainting/collapse attacks. If present, do ECG. If ECG abnormal, refer.
- Screen for alcohol/drug use: does patient drink ≥ 6 drinks/session every week?
- Review medication: antidepressants, hypertension and epilepsy treatment.
- Check Hb: if < 12g/dL (woman) or < 13g/dL (man), anaemia likely → 23.
- Check BP: if ≥ 140/90 or ≥ 130/80 with CVD, CVD risk ≥ 20%, diabetes, kidney disease or diastolic BP drop by ≥ 10?



• If none of the above, check TSH. Refer if no cause is found, dizziness persists.

## Chest pain

**Give urgent attention to the patient with chest pain and any of the following:**

- Respiratory rate > 30 or difficulty breathing
- BP ≥ 180/110 or < 90/60
- Pulse irregular, ≥ 100 or < 50
- Sudden pain
- New pain or discomfort in centre or left side of chest
- Pain radiates to neck, jaw, shoulder/s or arm/s
- Nausea or vomiting
- Pallor or sweating
- Known with ischaemic heart disease
- At risk of heart attack (diabetes, smoker, hypertension, high cholesterol, known CVD risk > 20%, family history)
- Swollen leg
- Injured patient → 14

**Do an ECG.**

ECG abnormal (ST elevation, ST depression or left bundle branch block) → 117

ECG normal/other abnormalities or unavailable or uncertain

Is chest pain worse on lying down, palpation or breathing deeply?

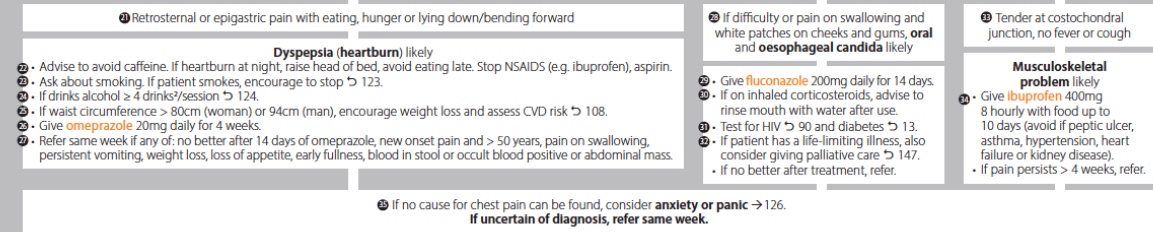
No → 117

Yes → **Manage and refer urgently:**

- If oxygen saturation < 90%, oxygen saturation machine not available, respiratory rate > 30 or difficulty breathing, give face mask oxygen.
- If sudden breathlessness, more resonant/decreased breath sounds/pain on one side, deviated trachea, tension pneumothorax likely:
  - Insert large bore cannula above 3rd rib in mid-clavicular line. Arrange for urgent chest tube.
- If BP < 90/60, give **sodium chloride 0.9% 250mL IV rapidly**. Repeat until systolic BP > 90. Continue 1L 6 hourly. Stop if breathing worsens.
- If BP ≥ 180/110, discuss with specialist the need for urgent treatment.
- If temperature ≥ 38°C, give **ceftriaxone<sup>1</sup> 1g IV/IM**.

**Approach to the patient with chest pain not needing urgent attention:**

- If recurrent episodes of central chest pain, brought on by exertion and relieved by rest, ischaemic heart disease likely → 117.
- If cough, fever or pain on breathing deeply → 36.
- Ask about site of pain and associated symptoms:



<sup>1</sup>If severe penicillin allergy (previous angioedema, anaphylaxis or urticaria), discuss with doctor. <sup>2</sup>One drink is 1 tot of spirits, or 1 small glass (125mL) of wine or 1 can/bottle (330mL) of beer.

• Protocols for management of common symptoms & syndromes caused by NCDs



# Guidance on health promotion & disease prevention

- Advise the patient about his/her general health**
- Ask the patient about their concerns and expectations from this visit, and try to address these.
  - 2 • Educate that not all tests, treatments and procedures help prevent or treat disease. Some provide little or no benefit and may even cause harm.
  - 3 • Help patient to choose lifestyle changes to improve and maintain their general health.

## Personal hygiene

- Use toilet/latrine to pass urine/stool.
- Use boiled, cooled water to drink, prepare food and clean.
- Wash hands thoroughly for  $\geq 20$  seconds with soap and water before and after passing urine/stool, preparing food, eating, touching animals, coughing, sneezing or blowing nose.



## Road safety

- Use pedestrian crossings to cross the road.
- Use a seat belt.
- Avoid using alcohol/drugs if driving.



## Have safe sex

- Have only 1 partner at a time.
- If HIV negative, test for HIV between partners.
- Advise partner to test for HIV.
- Use condoms.

## Avoid alcohol/drug use

- Limit alcohol intake < 2 drinks/day and avoid alcohol on at least 2 days of the week.
- Avoid using illegal drugs or misusing prescription or over-the-counter medications.



## Breast self-awareness

- Educate that breast cancer is common in women and is most treatable if found early.
- Advise woman to be aware of changes in her breasts that are not normal for her.
  - Check in mirror, when washing, and when lying down.
  - Check skin, under arms, each breast and nipple.
  - Advise to seek care if: painless hard lump in breast, arm, nipple discharge, nipple pulled in, rash or changes of skin.

- Ensure accessed online content is from a reputable source and check the facts.
- Avoid sharing false information online.

## Tobacco use

### Assess the patient who uses tobacco

Assess	When to assess	Note
Symptoms	Every visit	<ul style="list-style-type: none"> <li>• Ask about symptoms that might suggest tobacco use: chest pain, leg pain, cough, wheeze, shortness of breath, dizziness, headache, blurred vision, numbness/tingling, weight loss, night sweats, fever, chest pain on breathing or blood-stained sputum, exclude TB <math>\rightarrow</math> 84.</li> <li>• Ask about chest pain, leg pain, cough, wheeze, shortness of breath, dizziness, headache, blurred vision, numbness/tingling, weight loss, night sweats, fever, chest pain on breathing or blood-stained sputum, exclude TB <math>\rightarrow</math> 84.</li> <li>• Ask about chest pain, leg pain, cough, wheeze, shortness of breath, dizziness, headache, blurred vision, numbness/tingling, weight loss, night sweats, fever, chest pain on breathing or blood-stained sputum, exclude TB <math>\rightarrow</math> 84.</li> </ul>
Use	Every visit	<ul style="list-style-type: none"> <li>• Ask about type of tobacco use and frequency.</li> <li>• If recently stopped, ask about challenges.</li> </ul>
Stressors	Every visit	Help identify the domestic, social and work stressors.
COPD	At diagnosis	If difficulty breathing when walking fast.
CVD risk	At diagnosis	Assess and manage CVD risk $\rightarrow$ 108.

- 1 • Ask if patient is willing to discuss tobacco use.
  - 1 • Advise patient that stopping tobacco use is the most important action step.
  - 1 • Educate patient that nicotine is a very addictive substance and stopping is difficult.
  - 1 • Advise that most smokers make several attempts to stop before they are successful.
- If patient is not ready to stop in the next month:**
- 1 • Discuss risks to patient (worsening asthma, infertility, heart attack, stroke, COPD).
  - 1 • Help the patient identify benefits of stopping tobacco use like saving money, improving appearance, and protecting children and others from secondhand smoke.
  - 1 • Help the patient identify barriers to stopping tobacco use and possible solutions.
  - 1 • Ask if patient is ready to stop using tobacco in the next month. If not ready, return to 1.

- If patient is ready to stop in the next month or recently stopped:**
- 2 • Help the patient plan: set date to stop within 2 weeks, seek support from family/friends, avoid tobacco devices.
  - 2 • Help manage cravings: set a time limit before giving in, advise to delay as long as possible.
  - 2 • Educate about nicotine withdrawal symptoms: increased appetite, mood changes, irritability, difficulty concentrating, insomnia, fatigue, and headaches.

- 3 • Give the above advice to stop smoking. Also give medication. Offer referral to a specialist if needed.
- 3 • Help patient to choose medication based on preferences, side-effects and cost.

Medication	Dose
Nicotine gum	Start 4mg piece (if > 20 cigarettes/day) or 2mg piece (if $\leq 20$ cigarettes/day) 2 hourly or as needed then gradually decrease after 6 weeks. Maximum 24 pieces/day. Use for 12 weeks.
Nicotine patch	Start 21mg daily (if > 10 cigarettes/day) or 14mg daily (if $\leq 10$ cigarettes/day) for 6 weeks. Decrease by 7 mg every 2 weeks. Use for 8-10 weeks.

Review patient weekly for 1 month  
doctor to consider extending treatment

## Address the patient's general health

### Assess the patient's general health at every visit

Assess	When to assess	Note
Symptoms	Every visit	Manage symptoms as on symptom pages.
TB	Every visit	If cough, weight loss, night sweats, fever $\geq 2$ weeks, chest pain on breathing or blood-stained sputum, exclude TB $\rightarrow$ 84.
Family planning	Every visit	<ul style="list-style-type: none"> <li>2 • Discuss patient's contraception needs <math>\rightarrow</math> 137 and pregnancy plans. If pregnant, give antenatal care <math>\rightarrow</math> 141.</li> <li>3 • If HIV positive and planning pregnancy, advise patient to use contraception until viral load &lt; 1000copies/mL.</li> </ul>
Sexual health	Every visit	<ul style="list-style-type: none"> <li>2 • Ask about genital symptoms <math>\rightarrow</math> 44.</li> <li>2 • Ask about sexual preferences, risky behaviour (patient or partner has new or &gt; 1 partner or unreliable condom use) and sexual problems <math>\rightarrow</math> 53.</li> </ul>
Depression	Every visit	In the past month, has patient: 1) felt down, depressed, hopeless or 2) felt little interest or pleasure in doing things? If yes to either $\rightarrow$ 125.
Alcohol/drug use	Every visit	In the past year, has patient: drunk $\geq 6$ drinks/session every month, drinks every day or ever got drunk, used illegal drugs or misused prescription or over-the-counter medications? If yes to any $\rightarrow$ 124.
Tobacco use	Every visit	If patient uses tobacco, encourage to stop $\rightarrow$ 123.
Older person risk	Every visit if > 60 years	<ul style="list-style-type: none"> <li>1 • If patient has a change in function, confusion or strange behaviour <math>\rightarrow</math> 77.</li> <li>1 • If for at least 6 months <math>\geq 1</math> of: memory problems, disorientation, language difficulty, less able to cope with daily activities and work/social function: consider dementia <math>\rightarrow</math> 132.</li> <li>1 • Consider using lower medication doses (give full doses of antibiotics and ART) and avoiding unnecessary medications. Discuss with doctor if patient on diazepam, amitriptyline, codeine, ibuprofen, amlodipine or fluoxetine or is using <math>\geq 5</math> medications.</li> </ul>
CVD risk	10 if $\geq 40$ years or $\geq 2$ risk factors	<ul style="list-style-type: none"> <li>• Assess CVD risk <math>\rightarrow</math> 108 at first visit, then depending on risk.</li> <li>1 • Risk factors: smoking, parent/sibling with premature CVD (man &lt; 55 years or woman &lt; 65 years) or diabetes or kidney disease, BMI &gt; 25, waist circumference &gt; 80cm (woman) or 94cm (man), hypertension, diabetes, cholesterol &gt; 5.2mmol/L.</li> </ul>
BP	First visit, then depending on result	Check BP $\rightarrow$ 112.
BMI	Yearly	<ul style="list-style-type: none"> <li>• BMI = weight (kg) <math>\div</math> height (m) <math>\div</math> height (m).</li> <li>• If BMI <math>\geq 25</math> <math>\rightarrow</math> 102. If BMI &lt; 18.5 <math>\rightarrow</math> 103. If <math>\leq 19</math> years, plot on the relevant WHO BMI-for-age chart with the QR code:</li> </ul>
Diabetes risk	10 At first visit: <ul style="list-style-type: none"> <li>• If <math>\geq 40</math> years or</li> <li>• If BMI <math>\geq 25</math> and <math>\geq 1</math> other risk factor</li> </ul>	<ul style="list-style-type: none"> <li>• If not known diabetes, check glucose <math>\rightarrow</math> 13.</li> <li>1 • Risk factors: physical inactivity, hypertension, parent or sibling with diabetes, polycystic ovarian disease, high risk ancestry, cardiovascular disease, diabetes or high blood pressure during pregnancy, previous impaired glucose tolerance or fasting glucose.</li> </ul>
HIV	<ul style="list-style-type: none"> <li>• If status unknown</li> <li>• If sexually active: yearly</li> <li>• If pregnant: at 32 weeks gestation</li> </ul>	Test for HIV $\rightarrow$ 90.
Hepatitis B and C	First visit, then depending on risk	If in/from area with rates $\geq 2\%$ of hepatitis B and/or C or high risk <sup>1</sup> , test for hepatitis B and/or C, especially if pregnant: send blood for hepatitis B surface antigen (HBsAg) and/or anti-hepatitis C antibody (anti-HCV). Manage/vaccinate according to hepatitis B results $\rightarrow$ 99 and hepatitis C $\rightarrow$ 100.
Cervical screen	When needed	<ul style="list-style-type: none"> <li>• If HIV negative: age &gt; 30 years and had no cervical screening in past 5 years, do cervical screen <math>\rightarrow</math> 50</li> <li>• If HIV positive: age <math>\geq 25</math> years and had no cervical screening in past 3 years, do cervical screen <math>\rightarrow</math> 50</li> </ul>
Breast check	First visit, then yearly	Check for lumps in breasts $\rightarrow$ 38 and axillae $\rightarrow$ 22. Offer mammogram if available to woman 50 - 69 years every 2 years.

WHO BMI-for-age chart



Continue to manage the patient's general health  $\rightarrow$  9

<sup>1</sup>High risk: if patient is HIV positive, person who injects/inhales shared drugs, a man who has sex with men (MSM), sex worker, or in prison or another closed setting or known close household contact/sexual partner of those with hepatitis B or C infection.

- Checklists for routine visits

## Chronic arthritis

- If patient has episodes of joint pain and swelling that completely resolve in between, consider gout
- The patient with chronic arthritis has had continuous joint pain for at least 6 weeks. Distinguish between:
  - ① Osteoarthritis likely if:
    - Affects joints only.
    - Weight-bearing joints and possibly hands and feet.
    - Joints may be swollen but not warm.
    - Stiffness on waking lasts less than 30 minutes.
    - Pain is worse with activity and gets better with rest.

If inflammatory arthritis likely or uncertain

### Assess the patient with

Assess	When to assess	Note
Symptoms	Every visit	Manage symptoms as on symptom pages
① Activities of daily living	Every visit	Ask if patient can walk as well as possible
② Sleep	Every visit	If patient has difficulty sleeping
③ Depression	Every visit	In the past month, has patient felt down, depressed, hopeless or 2) felt little interest or pleasure in doing things? If yes to either → 125.
④ Joints	Every visit	Look for warmth, tenderness, swelling
Body Mass Index (BMI)	At diagnosis	BMI = weight (kg) ÷ height (m) <sup>2</sup>
⑤ CRP/ESR, Rheumatoid factor (RF), FBC	If inflammatory arthritis likely or unsure	If ESR/CRP raised or RF positive
⑥ HIV	At diagnosis	Test for HIV → 90.

### Advise the patient with

- ① If BMI > 25, advise to reduce weight to decrease stress on weight-bearing joints like knees and feet.
- ② Encourage the patient to be as active as possible, but to rest with acute flare-ups.
- ③ Refer patient and carer for education about chronic arthritis, to available local support group or help.
- ④ Ensure the patient using disease modifying medication knows to have regular blood monitoring depending on drug.

### Treat the patient with

- ① If inflammatory arthritis or difficulty with activities of daily living, refer to physiotherapist or occupational therapist.
- ② Give paracetamol 1g 6 hourly as needed for pain. If no response and inflammation is present in the joints, refer to rheumatologist.
- ③ Rheumatoid arthritis must be treated early with disease modifying anti-rheumatic medication to control disease.
- ④ If specialist unavailable within 1 month and inflammatory arthritis likely, doctor to start prednisolone 5mg daily.

Review monthly until symptoms controlled, then 3-6 months

② Avoid if peptic ulcer, asthma, hypertension, heart failure or kidney disease.

## Alcohol/drug use

① Hazardous alcohol use is a pattern of use that puts the patient at risk of dependence and physical, mental and social harm. Any drug use is hazardous. If patient uses tobacco → 123.

### Assess the patient with hazardous alcohol use or any drug use

Assess	Note
Symptoms	<ul style="list-style-type: none"> <li>• If recently reduced/stopped use and is restless, agitated, difficulty sleeping, confused, depressed, hallucinations, vomiting, tremors, headache, seizures, convulsions, fast or irregular heartbeat, chest pain</li> <li>• If patient has suicidal thoughts or plans → 75.</li> <li>• If abnormal thoughts or behaviour → 77.</li> <li>• If aggressive/violent or disruptive behaviour → 76.</li> </ul>
Hazardous/harmful use	<ul style="list-style-type: none"> <li>• Use is hazardous if: &gt; 4 drinks/day if man, or &gt; 2 drinks/day if woman; or ≥ 6 drinks/week</li> <li>• Use is harmful if it has caused physical (like injuries, liver disease, stomach ulcer), mental or social harm</li> </ul>
① Dependence	Patient is dependent if ≥ 3 of: strong need to use substance; difficulty controlling use; withdrawal symptoms
② Stressors	Help identify the domestic, social and work factors contributing to alcohol/drug use
③ Depression	In the past month, has patient: 1) felt down, depressed, hopeless or 2) felt little interest or pleasure in doing things?
④ Infections	If injecting drugs or having sex under influence of drugs/alcohol: screen for STIs → 4

### Advise the patient with

- ① If pregnant/planning pregnancy or breastfeeding, advise to avoid alcohol/drugs completely
- ② Suggest patient seeks support from close relatives/friends who do not use alcohol/drugs
- ③ Discuss risks/harms that using alcohol/drugs may cause. Allow patient to decide for him/herself

#### ② Hazardous alcohol use without dependence

- If harmful drinking, pregnant, previous dependence or contraindication (like hepatitis C, chronic hepatitis B or liver damage, mental illness), advise to stop alcohol completely. Avoid drinking places and keeping alcohol at home.
- If none of above and patient chooses to continue alcohol, advise low-risk use: ≤ 2 drinks/day and avoid alcohol at least 2 days/week.

### If alcohol/drug dependence, do

- ① Arrange inpatient detoxification if previous withdrawal delirium/fits or failed detoxification programme
- ② Doctor can do outpatient detoxification programme if none of the above. Ensure patient has support

Substance	Detoxification programme - write down
① Alcohol (start only if no alcohol in past 8 hours)	<ul style="list-style-type: none"> <li>• Give thiamine 100mg orally daily for 5 days</li> <li>• Give diazepam 10mg 6 hourly orally for 5 days</li> </ul>
② Cannabis/stimulant drug	If needed, treat anxiety, restlessness, irritability
Benzodiazepines	<ul style="list-style-type: none"> <li>• Avoid suddenly stopping benzodiazepines</li> <li>• Replace benzodiazepine patient is taking each week until 40mg daily, then decrease</li> </ul>

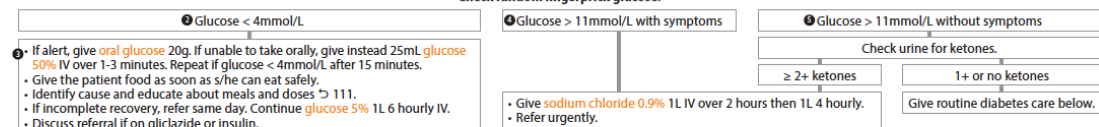
② If harmful use, review in 1 month then as needed. If on detoxification programme, review in 1 month then as needed.

① One drink is 1 tot of spirits, or 1 small glass (125mL) of wine or 1 can/bottle (330mL) of beer.

## Diabetes: routine care

- Chest pain → 35
- Fitting → 15
- Decreased consciousness, drowsiness
- Confusion or unusual behaviour
- Weakness or dizziness
- Shaking
- Sweating
- Palpitations
- Rapid deep breathing
- Nausea or vomiting
- Abdominal pain
- Thirst or hunger
- Temperature ≥ 38°C
- Dehydration: dry mouth, poor skin turgor, sunken eyes, BP < 90/60, pulse ≥ 100

### Check random fingerprick glucose:



### Assess the patient with diabetes

Assess	When to assess	Note
Symptoms	Every visit	Manage symptoms as on symptom pages. Ask about chest pain → 35, leg pain → 59 and sexual problems → 53.
① Depression	At diagnosis and if control poor	In the past month, has patient: 1) felt down, depressed, hopeless or 2) felt little interest or pleasure in doing things? If yes to either → 125.
② Alcohol/drug use	At diagnosis and if control poor	In the past year, has patient: 1) drunk ≥ 6 drinks/session, 2) used illegal drugs or 3) misused prescription or over-the-counter medications? If yes to any → 124.
③ Family planning	Every visit	Assess patient's contraception needs → 137. If pregnant or planning pregnancy, refer for specialist care.
BMI (weight)	Every visit	BMI = weight (kg) ÷ height (m) <sup>2</sup> . Aim for BMI < 25. If ≥ 25, manage the overweight patient → 102.
④ CVD risk	At diagnosis, then yearly	Assess CVD risk → 108. Start simvastatin if CVD risk > 20% → 111.
⑤ BP	Every visit	If known hypertension → 113. If not, check BP: if ≥ 130/80 → 112.
⑥ Eyes	At diagnosis, 2-yearly and if problems	Arrange eye and visual assessment.
⑦ Feet	Visual: every visit, comprehensive: at diagnosis, yearly and if problems	<ul style="list-style-type: none"> <li>• Visual assessment: look for ulcers, calluses, redness, warmth and deformity. Check shoes for appropriate shape, size and sole wear.</li> <li>• Comprehensive assessment: visual assessment as above, foot pulses, reflexes, sensation in toes and feet. If ulcers → 69 and discuss/refer.</li> </ul>
⑧ HbA <sub>1c</sub> (glucose control over past 3 months)	① 6 monthly if < 7%, 3 monthly if ≥ 7% or after treatment change	<ul style="list-style-type: none"> <li>• If HbA<sub>1c</sub> &lt; 7%: continue same treatment for diabetes.</li> <li>• If HbA<sub>1c</sub> ≥ 7%: if adherent, step up treatment. If not adherent, educate on importance of adherence and repeat after 3 months.</li> </ul>
⑨ Fingerprick glucose	If urgent attention needed or HbA <sub>1c</sub> unavailable	<ul style="list-style-type: none"> <li>• If &gt; 11mmol/L or &lt; 4mmol/L: manage urgently as above.</li> <li>• If 7-11mmol/L (fasting): if adherent, step up treatment. If not adherent, educate on importance of adherence and repeat after 3 months.</li> <li>• If 4-6.9mmol/L (fasting): continue same treatment for diabetes.</li> </ul>
Urine dipstick	At diagnosis, then yearly	If protein, start angiotensin-converting enzyme (ACE) inhibitor if not already on it → 111. If no protein and not on ACE inhibitor, send urine for ACR.
⑩ Urine albumin creatinine ratio (ACR)	At diagnosis, then yearly	If raised, exclude urine infection, repeat after 3 months to confirm diabetic kidney disease and start ACE inhibitor → 111. If raised with next check, discuss/refer.
⑪ Creatinine and eGFR	At diagnosis, then yearly	If eGFR < 60mL/min/1.73m <sup>2</sup> , repeat after 3 months. If still < 60mL/min/1.73m <sup>2</sup> , refer to doctor.
⑫ Total cholesterol	① At diagnosis, then yearly	② If cholesterol > 8mmol/L, start simvastatin → 111 and refer.

- Standardized decision-making for longitudinal care
- History, examination, tests and health education incorporated

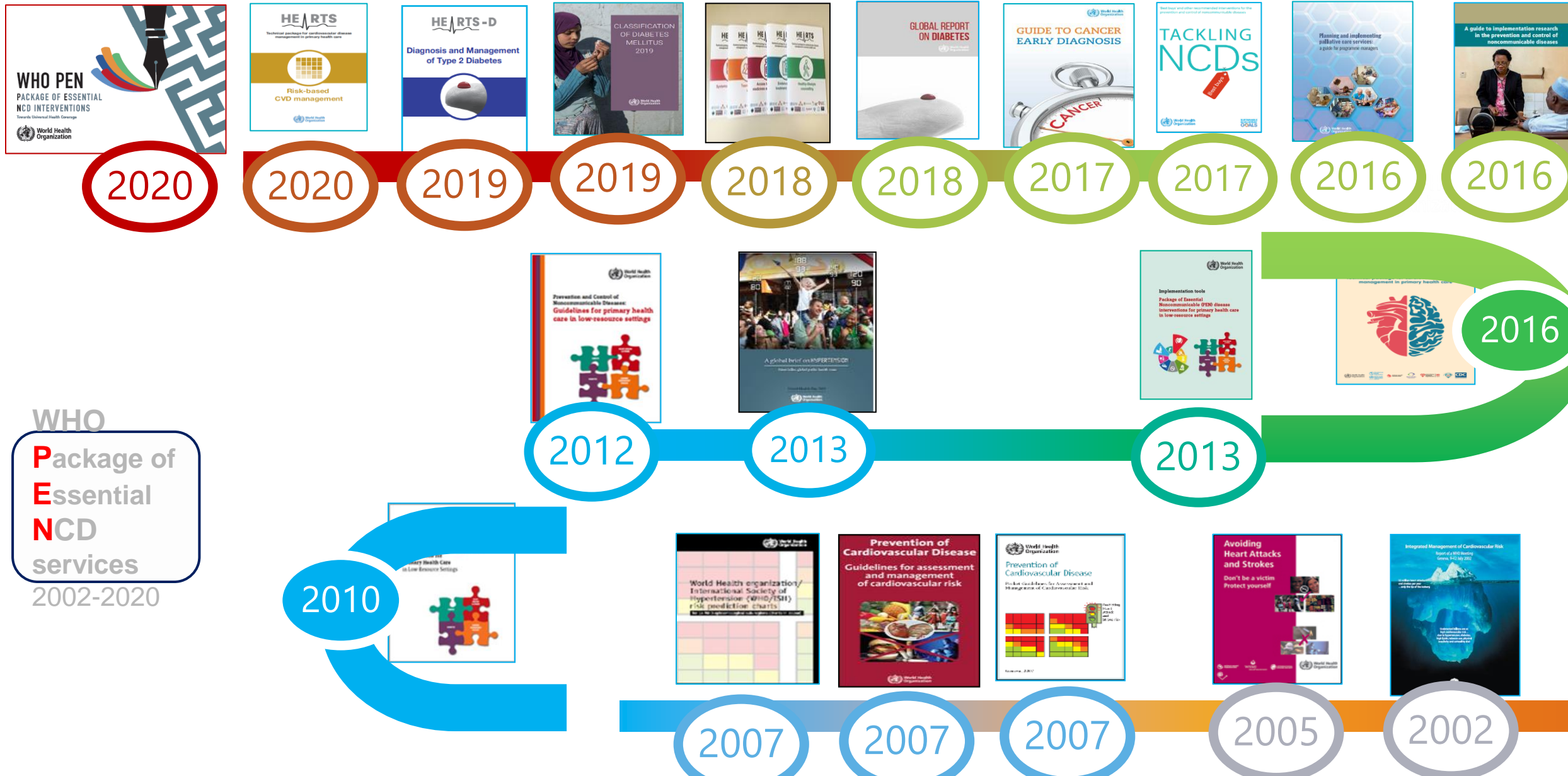
# DG Priorities: WHO Agenda for Recovery, Renewal, and Readiness

## Priority 2: To support a radical reorientation of health systems towards primary health care, as the foundation of universal health coverage - Measurable impact

- ✓ **Accelerated progress towards UHC**
- ✓ improved access to quality essential health services and health commodities
- ✓ SDG 3.8.1; reduced number of people suffering financial hardship
- ✓ SDG 3.8.2; halt the rise in financial hardship in 25 countries by 2025).
  
- ✓ **Accelerated health outcome improvements across programmes, tailored to country context**
  - Countries that had high **maternal mortality** ratios (MMR >420/100000) in 2010 on track by 2025 to reduce MMR by at least two-thirds by 2030; by 2025, 90% pregnant women to attend four or more antenatal care visits; 90% births to be attended by skilled health personnel; 65% of women to be able to make informed and empowered sexual health decisions.
  - Countries on track to reduce **child deaths** to a neonatal mortality rate of < 12 deaths per 1,000 live births, and an under-five mortality rate of < 25 deaths per 1,000 live births, by 2030
  - Reduce the number of '**zero dose immunized**' children by 25% by 2025, and by 50% by 2030 (from 14 million in 2019).
  - **Infectious disease** targets by 2025: 90% of people living with HIV and people at risk are linked to people-centred and context-specific integrated services; 0% of TB-affected families face catastrophic costs due to TB and TB incidence halved vs 2015; at least 75% reduction in global malaria case incidence compared with 2015.
  - **Non-communicable diseases** on track for one-third relative reduction in overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases by 2030 (vs 2015); at least 50% of eligible people receive drug therapy and counselling to prevent heart attacks and strokes; a 25% relative reduction in the prevalence of raised blood pressure (vs 2010) or contain the prevalence of raised blood pressure, according to national circumstances; halt the rise in diabetes and obesity.
  
- ✓ **Country-specific PHC improvements to deliver these outcomes,**
- ✓ e.g. per capita PHC-specific health expenditure; government PHC spending as percentage of total government health expenditure; health facility and health worker density/distribution; availability of essential medicines; improved patient-reported experiences and/or perceptions of health systems and services; reduced 30-day case fatality rate (for acute myocardial infarction or stroke) and/or reduced hospital readmission rate for tracer conditions; increased consistency of country health financing measures with good practice.

# Strengthening NCD services through PHC : Tools and Guidance

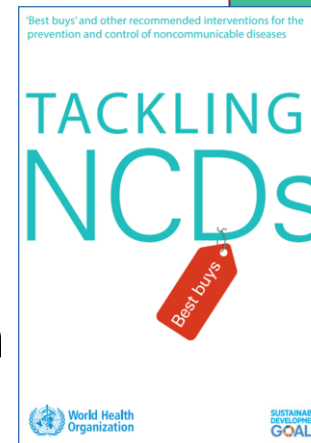
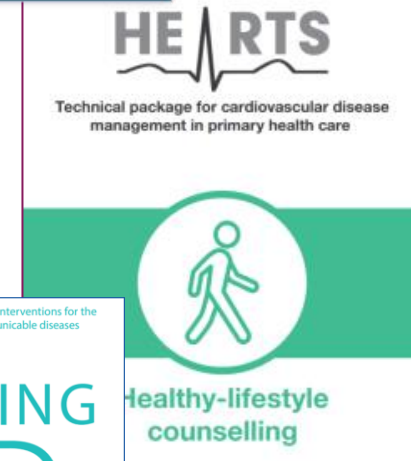
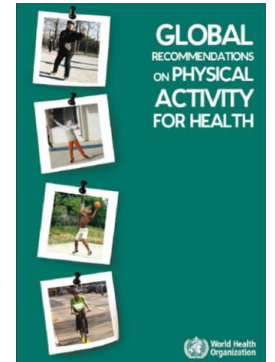
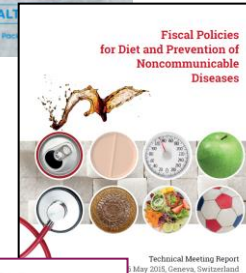
## Programmatic Approach



# Strengthening NCD services through PHC : Technical guidance at the core

## Tools and Guidance

- A menu of policy options of affordable interventions ( Appendix 3)
- Technical Packages: WHO PEN, HEARTS, SHAKE, MPOWER, SAFER, ACTIVE
- Facility Based & Program Monitoring Data
- Palliative Care in Primary Care
- Be Healthy Be Mobile Handbooks for NCD
- Guide for Integration of NCD into the health system
- Sensory functions Disability and Rehabilitation Tools



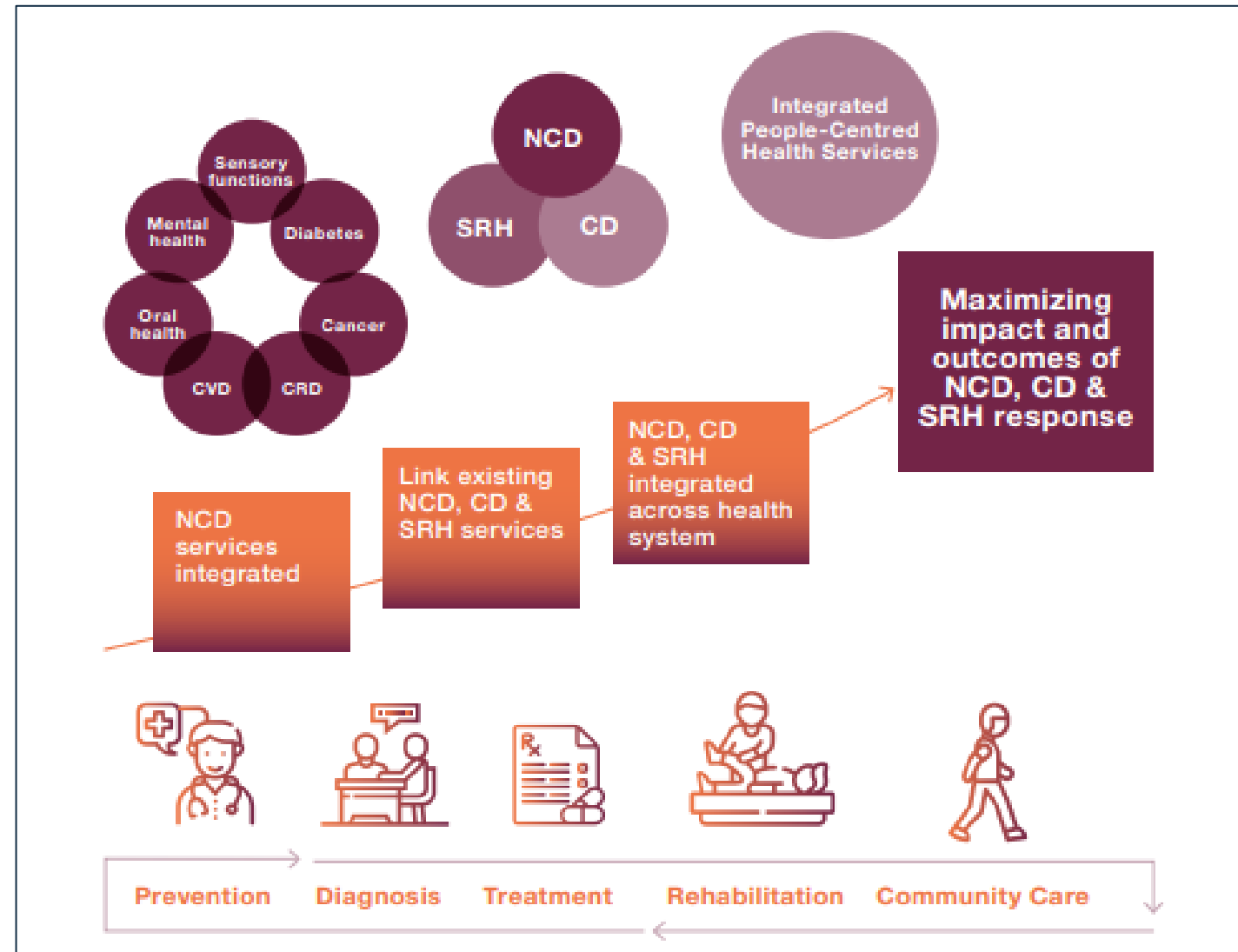
# Strengthening NCD services through PHC : Tools and Guidance

## What is integration of NCD in PHC and UHC?

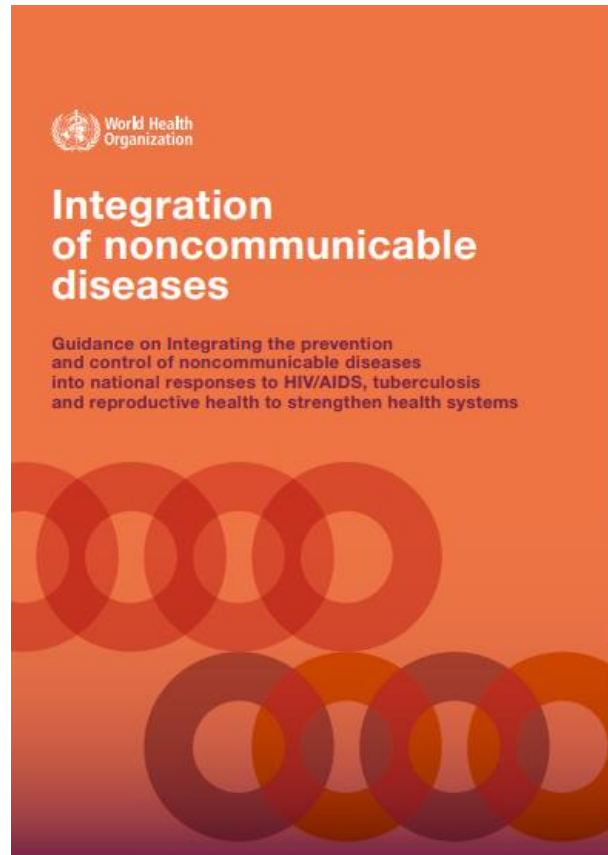
The organization of prevention and management of NCD (health) services at primary and all levels of care through strengthening of health systems



.....so that people **receive the care** they need, when they need it, in ways that are user friendly, **achieve the desired results** and ensuring that use of those services **does not expose to financial hardship**.



## Guidance on Integration of NCD into other programs and the Health System



## Domains of Actions



**People and community**



**Policy and leadership**



**Financing**



**Capacity and infrastructure**



**NCD Model of care**

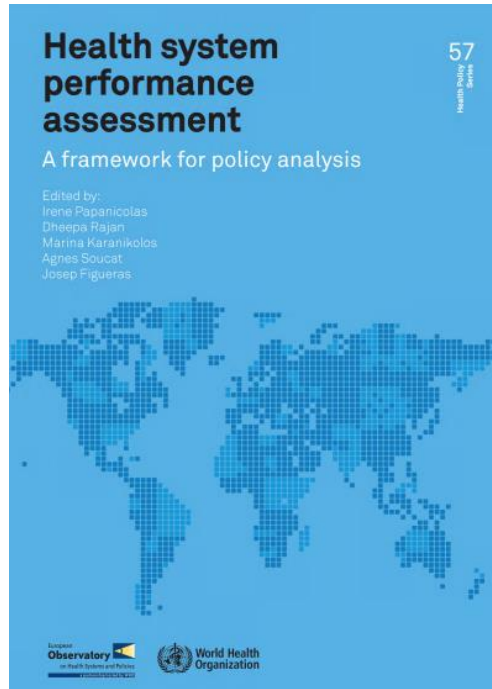
# Strengthening NCD services through PHC : Tools and Guidance

## Health System Strengthening for NCD

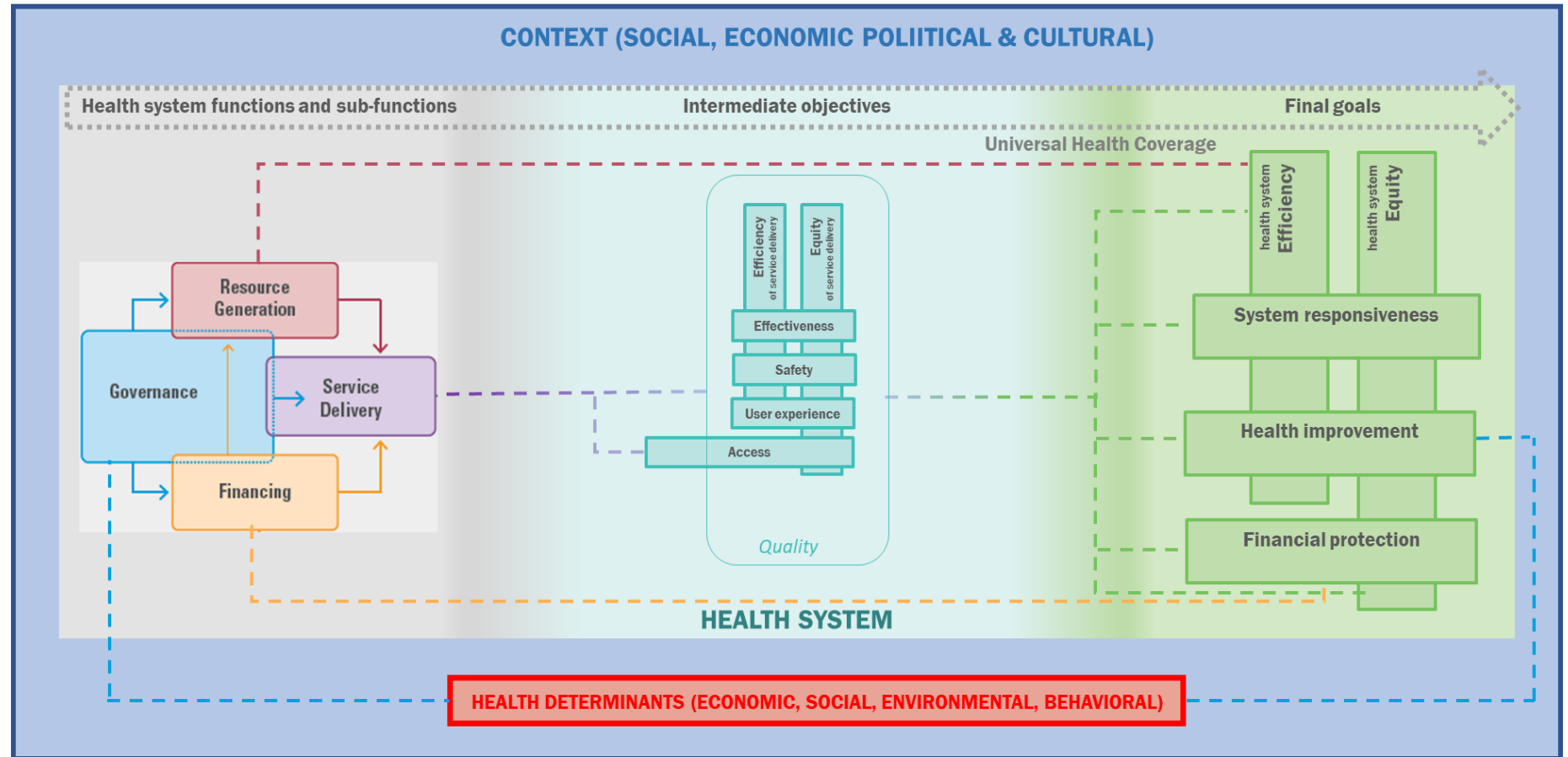


# Health System Readiness (Maturity)

## HS(P)A Framework



<https://www.who.int/publications/i/item/9789240042476>



—————  
Structural links

- - - - -  
Performance links



# Strengthening NCD services through PHC : Tools and Guidance



## Health System Strengthening for NCD

### Strengthening health system response to NCDs



#### Governance

- NCD in NHPSP
- Integration Policy
- NCD Investment Case

#### Health financing

- NCD in UHC Benefit package
- Financing for NCD

#### Medicines & tech

- Intensify Advocacy
- Pricing and Affordability
- Procurement and Supply Chain management

#### Health workforce

- NCD Competency Framework
- NCD Workforce planning
- Capacity building

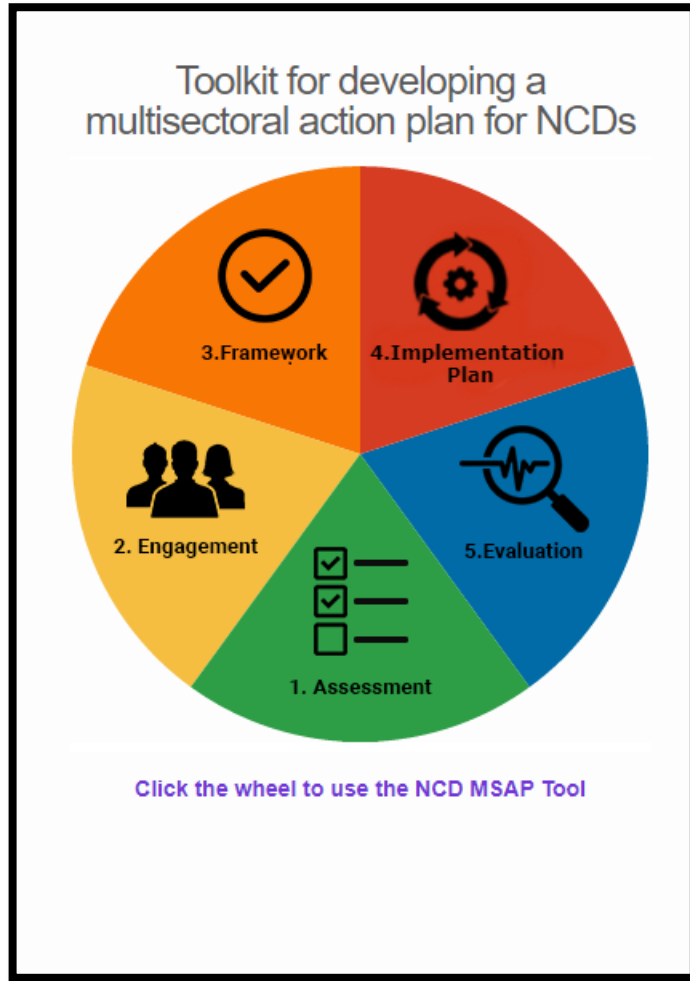
#### Service delivery

- Integrated Chronic Care
- Community Mobilization

### Health information

# Strengthening NCD services through PHC : Tools and Guidance

## Governance



### Overarching guidance

- National Health Sector Plan
- UHC Policy and Plans

### NCD specific guidance and tools

- Toolkit for developing multisectoral action plan for NCDs

# Strengthening NCD services through PHC : Tools and Guidance

## Workforce



### Overarching guidance

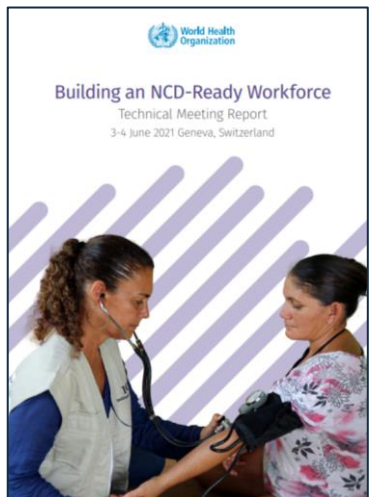
- WHO Global Strategy on Human Resources for Health: Workforce 2030

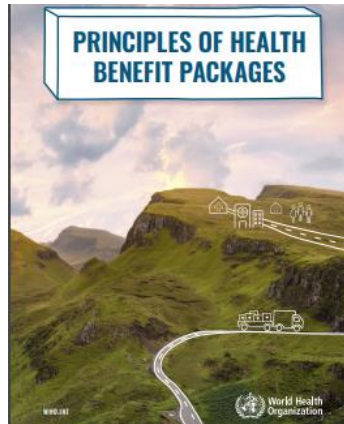
### NCD specific guidance

- Pathway to building an NCD-ready workforce

### Tools/Technical products

- Guidance on evidence-based task sharing mechanisms between health workers for essential NCD services (June 2023)
- NCD Prevention and Control competency-based Learning framework (Dec 2023)





### Overarching guidance

- Principles of Health Benefit Packages

### NCD specific guidance

- Approach to the prioritisation of NCD interventions



### Tools/Technical products

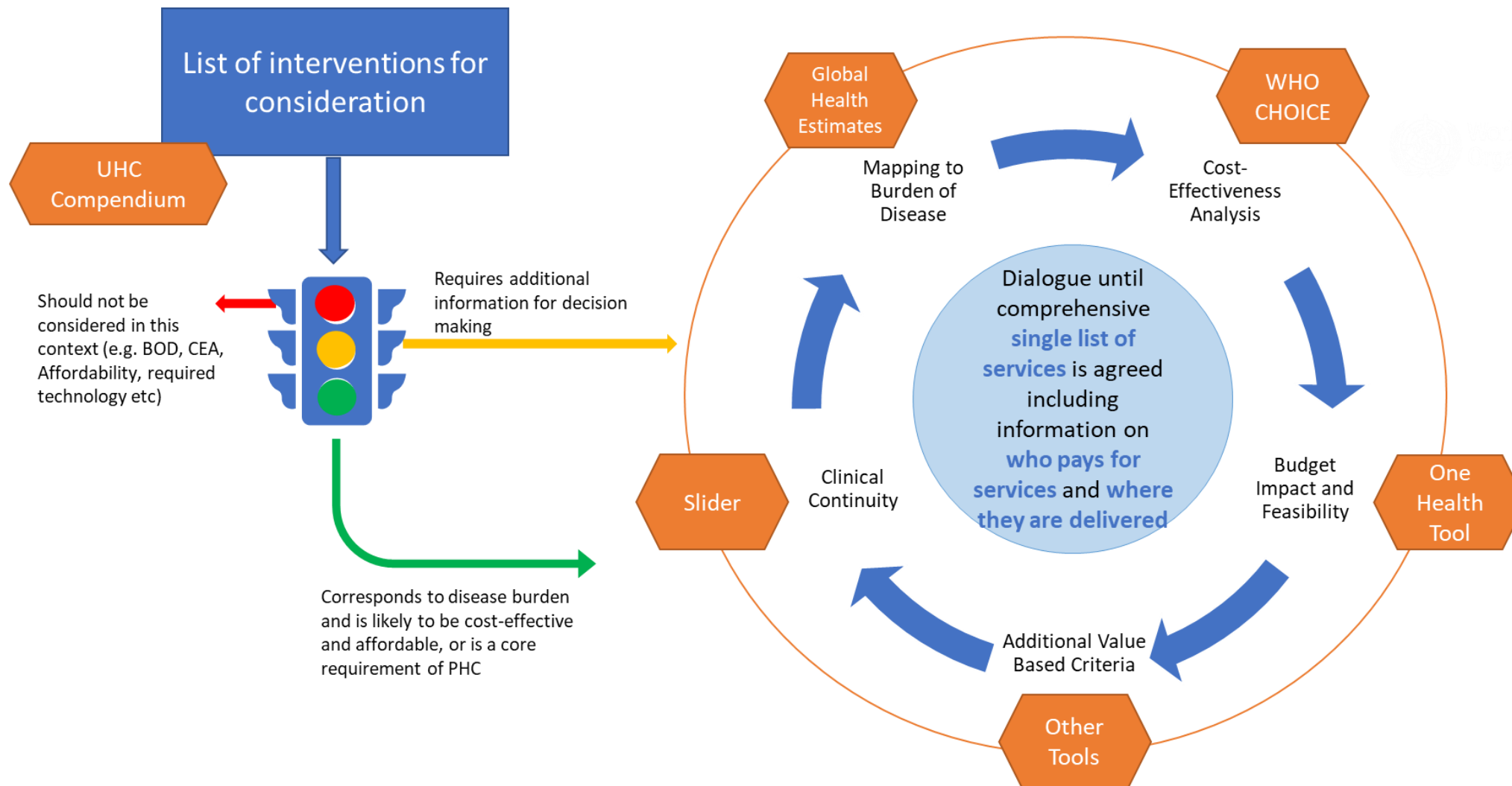
- UHC Compendium
- NCD Finance Needs Tool

# Strengthening NCD services through PHC : Tools and Guidance

## NCD Prioritization and Financing



### Using the UHC Compendium at country level to develop a “package”



# Country Support

## NCD in UHC Benefit Package ROADMAP



# Strengthening NCD services through PHC : Tools and Guidance



## NCD Medicines and Health Products

### Ensuring quality, safety and efficacy of health products

Regulatory system strengthening

Assessment of the quality, safety and efficacy/performance of health products through prequalification

Market surveillance of quality, safety and performance

### Improving equitable access

Research and development that meets public health needs and improves access to health products

Application and management of intellectual property to contribute to innovation and promote public health

Evidence-based selection and fair and affordable pricing

Procurement and supply chain management

Appropriate prescribing, dispensing and rational use

### Overarching guidance

- Access to Medicines and Health Products Roadmap

### NCD specific guidance

- Guidance for improving access to NCD medicines and health products

### Tools/Technical products

- Register for publishing contributions from the pharmaceutical and health technology industry to national responses for SDG 3.4 on NCDs

# Strengthening NCD services through PHC : Tools and Guidance

## Pathway for Access to NCD Care & Treatment (NCD-PACT)



### Strategic Areas

Partnerships

Integration

Patient Access

*There are three strategic areas of work to support the NCD department toward addressing the barriers to access and contributing to the measurement of the SDG 3.4, 3.8, and 3b.*

#### 1. Advocacy and Partnerships

- a) Private Sector engagement with the pharmaceutical and health technology industry
- b) Private Sector Reporting mechanism to register commitments and contributions
- c) Communications and Advocacy: Hard Talks and Spotlight Webinars
- d) Strengthened Partnerships and Coalitions: UN, Implementing Partners, Development Agencies

#### 2. Strategic integration of NCD medicines and health products with other health supply systems to build on existing investments, reduce inefficiencies, and scale access to NCD care and treatment

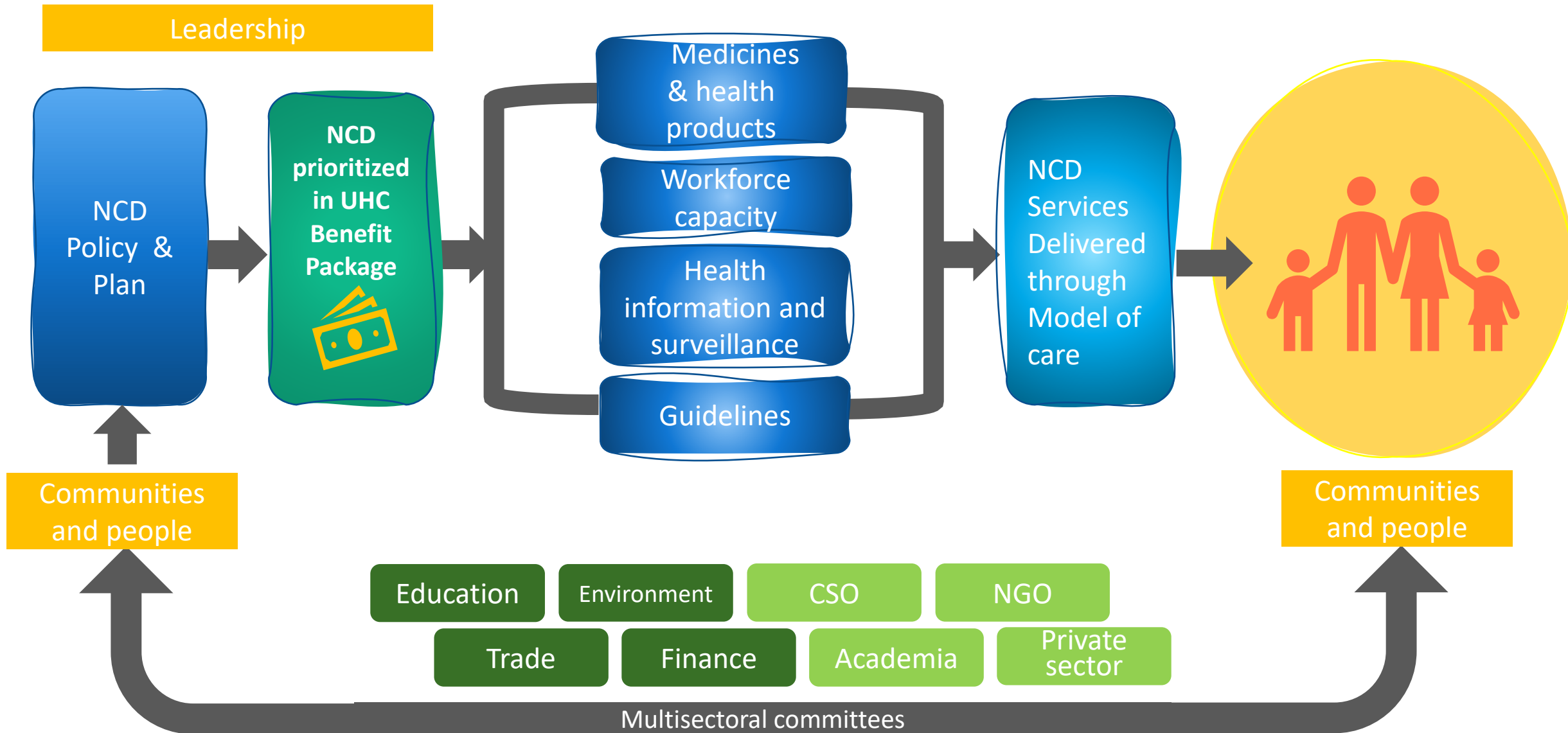
- a) Normative Guidance and Products: MedMon Surveys, NCD forecasting and quantification tool, COVID19 report, Pooled Procurement Strategy, Cold Chain Integration, Products part of the MHP (PQ, Pricing/Transparency, Technical specifications)
- b) Innovation: Ensure access to public health-driven innovation – example heat stability for insulin

#### 3. Patient Access: Strengthening the value chain for NCD Medicines and Health Technologies

- a) Country Support and joint missions with colleagues in the access to MHP division



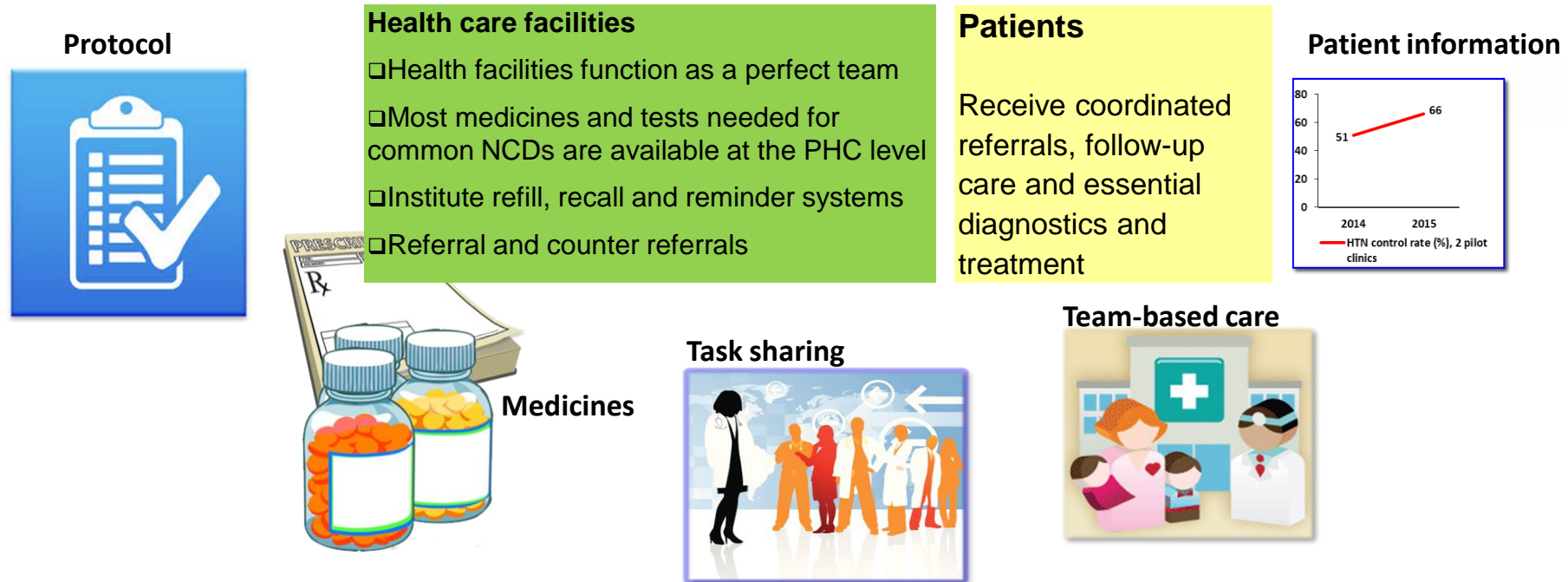
# Stepwise approach



## Measure of success of strengthening the health system to deliver NCDs

Governance	Finance	Access to medicines and health products	Health workforce	Service delivery	Community
<ul style="list-style-type: none"><li>• Existence of NCDs in the national health plan outputs or outcomes</li><li>• Alignment of the national multisectoral plan for NCDs with the national health sector plan</li><li>• Existence of a national multisectoral commission, agency or mechanism for NCDs</li></ul>	<ul style="list-style-type: none"><li>• Availability of NCD services in National UHC benefit package/National essential services package</li><li>• Out-of-pocket (OOP)- specific on NCDs</li><li>• Per capita health expenditure (and NCD-specific)</li></ul>	<p>Availability of essential NCD medicines</p> <p>Availability of essential NCD technologies</p>	<ul style="list-style-type: none"><li>• Percentage of facilities offering NCDs services with staff trained in NCDs diagnosis and management</li></ul>	<ul style="list-style-type: none"><li>• Percentage of facilities offering NCD services according to national defined service package</li><li>• Percentage of individuals with raised blood pressure under control</li><li>• Percentage of people with good control of glycaemia</li><li>• Asthma control</li><li>• Population screening coverage for cervical cancer</li><li>• Coverage of drug therapy and counselling to prevent heart attack</li></ul>	<ul style="list-style-type: none"><li>• Community engagement in service planning and organization</li></ul>

## Norway NCD Flagship Initiatives: Nepal



## A vision for Nepal Integrated NCD Care Model

## Norway NCD Flagship Initiatives: Nepal

### Objective:

- To identify and screen adult population for **hypertension, diabetes and cervical cancer, COPD, mental illness** in selected districts
- Initiate treatment
- Provide referral and follow-up care.

District/Province	Target population
Kailali	
Parsa / Province 2	683,556
Palpa / Lumbini	247,000
Manang / Gandaki	
Jajarkot / Karnali	200,016
Ilam / Province 1	313208
Kavrepalanchowk / Bagmati	370,000
Kanchapur / Sudur-Pashchim	535,075



- Multisectoral Steering Group
- Target Set for final NCD Plan
- Review and contribution of NCD to Health Finance Strategy
- Community Mobilization Plan initiated
- District Implementation ongoing in 2 districts

# Strengthening NCD services in PHC : Practice & Case Studies

## PEN Plus: AFRO

### Challenges

- Low level of awareness
- Increasing exposure to modifiable risk factors
- Poor access to prevention services
- Poor access to medicines

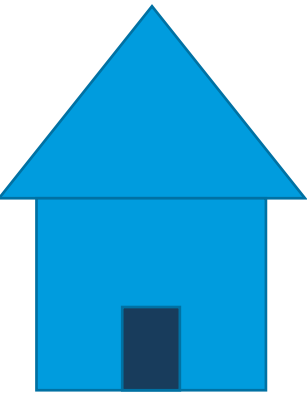
### Challenges

- Limited capacity for longitudinal care diagnosis and management
- Non availability of protocols/guidelines
- Limited availability of basic equipment's and consumables
- M&E challenges
- Challenges with referral

### Challenges

- Non availability of basic equipment and technologies
- Limited health worker capacity
- Limited referral system
- Weak M&E
- Weak linkage with PHCs and higher level

community



PHC



1<sup>st</sup> level referral facility



### Expected role

- Aware of risk factors
- Access to prevention ,early diagnosis and treatment

### Expected role

- Availability of guidelines and drug and dose specific management protocols
- Clear and efficient referral mechanisms
- M&E that adequately tracks patient outcomes
- Appropriately skilled and resourced HR

### Expected role

- Capacity to diagnose and manage chronic and sever NCDs
- Capacity to provide mentorship and supervision to PHCs
- Capacity to refer to higher levels
- Manage other chronic and sever NCDs
- Available essential medicines diagnostics and basic equipment's

## PEN Plus: AFRO



AFR/RC72/4  
4 July 2022

ORIGINAL: ENGLISH

REGIONAL COMMITTEE FOR AFRICA

Seventy-second Session  
Lomé, Republic of Togo, 22–26 August 2022

Provisional agenda item 7

### PEN-PLUS – A REGIONAL STRATEGY TO ADDRESS SEVERE NONCOMMUNICABLE DISEASES AT FIRST-LEVEL REFERRAL HEALTH FACILITIES

Report of the Secretariat

#### EXECUTIVE SUMMARY

1. Africa has a high burden of noncommunicable diseases (NCDs). Health care services for severe NCDs such as type 1 diabetes, advanced rheumatic heart disease, and sickle cell disease, are usually provided at tertiary facilities in most countries. This exacerbates health inequities and contributes to the high premature mortality from NCDs in the Region.
2. Since 2008, WHO has been providing support to Member States to implement the WHO Package of Essential NCD interventions for primary health care in low-resource settings (WHO PEN). The aim is to provide decentralized and integrated management of common NCDs at the primary health care level as well as strengthen capacity for referrals.
3. As part of the district health system, district hospitals are the main referral facility at the district level and provide administrative oversight to first-level care facilities and other health institutions within the district. Strengthening capacity for management of severe NCDs at this level of health service delivery is important for reducing premature mortality from NCDs.
4. The regional strategy aims to address the burden of severe NCDs among rural and unreached populations through decentralized, integrated outpatient services in first-level referral health facilities. It offers solutions to bridging the gap in access to care for severe NCDs in addition to strengthening the implementation of WHO PEN. The guiding principles include a whole-of-government approach, multisectoral collaboration, universal health coverage and partnerships.
5. This strategy proposes priority interventions covering training and mentoring of staff, resource

# PEN-Plus- A regional strategy to address severe, chronic Noncommunicable diseases (NCDs) at first-level referral health facilities

[AFR-RC72-4 PEN-plus a regional strategy to address severe noncommunicable diseases at first-level referral health facilities.pdf \(who.int\)](#)

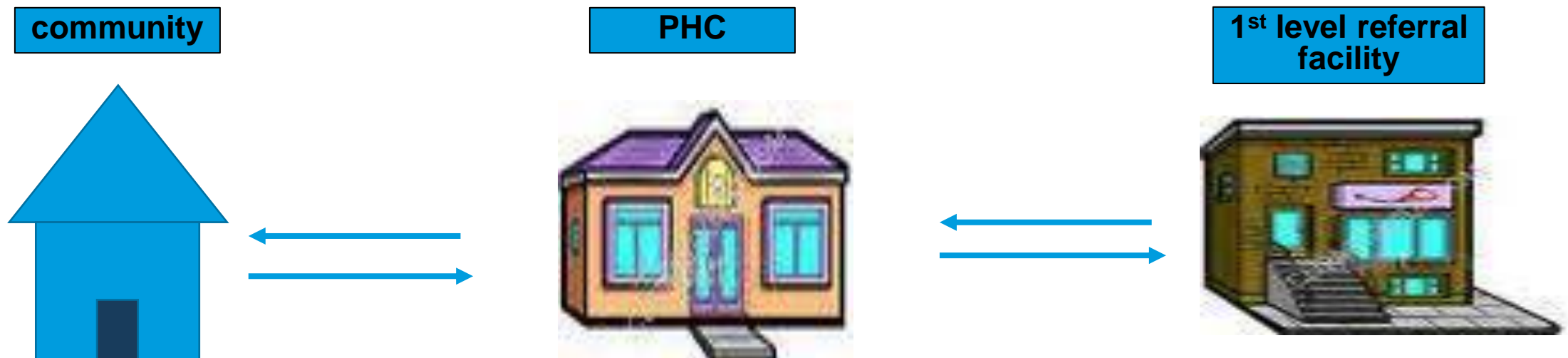
# Strengthening NCD services in PHC : Practice & Case Studies

## Integrated Model, PEN Plus : AFRO

A regional strategy to address severe\*, chronic NCDs at first-level referral health facilities.

- ❑ **shared competencies** needed to deliver care for groups of related conditions through protocol development
- ❑ **decentralized**, integrated outpatient services
- ❑ strengthening the implementation of **WHO PEN**
- ❑ ensuring that the **capacity, infrastructure, and logistics** for care are available

\***Severe NCDs** include sickle cell disease, type 1 diabetes mellitus, insulin-dependent type 2 diabetes and advanced rheumatic heart disease, cardiomyopathy, severe hypertension and moderate to severe persistent asthma.



# Strengthening NCD services in PHC : Practice & Case Studies

## UHC Partnership: Support on NCDs part of Health System Strengthening



### UNIVERSAL HEALTH COVERAGE PARTNERSHIP

Bridging the gap between global commitments and country implementation to achieve Universal Health Coverage



- 1 BILLION MORE PEOPLE** benefiting from UHC
- 1 BILLION MORE PEOPLE** protected from health emergencies
- 1 BILLION MORE PEOPLE** enjoying better health and well-being

The Universal Health Coverage Partnership (UHC-P) has evolved into a significant and influential global partnership to make Universal Health Coverage a reality. From supporting seven countries in 2011, the Partnership now includes 115 countries.

#### The UHC-P supports governments

- ✔ in strengthening health systems for UHC
- ✔ through improving governance, access to health products, workforce, financing, information and service delivery
- ✔ with a special focus on noncommunicable diseases (NCDs) and health security
- ✔ in enabling effective development cooperation in countries.



### COVID-19: Delivering UHC requires strengthening preparedness and health security

The COVID-19 pandemic tested health systems and exposed gaps in health security. More than ever, the UHC-P and its ability to support national priorities through flexible, multidisciplinary and responsive programming and funding prove crucial in addressing early recovery needs, and strengthening the preparedness and resilience of countries to protect their populations from future threats.

### Achieving UHC requires a strong response to NCDs

NCDs kill over 40 million people each year, equivalent to 75% of all deaths globally. The UHC-P supports countries in delivering innovative and equitable solutions for the prevention and management of NCDs. During the COVID-19 pandemic and beyond, the UHC-P works to accelerate the robust expansion of essential NCD services and to ensure continuity of care even as countries face pandemics and other major threats to health.

### Supporting countries to achieve UHC



### Noncommunicable diseases (NCDs) & Health security and preparedness

“ COVID-19 is not just a global health emergency, it is a vivid demonstration of the fact that there is no health security without resilient health systems. ”  
Dr Tedros Adhanom Ghebreyesus, WHO Director-General



### Reaching 115 countries

As the operational arm of the UHC2030, the global movement to build stronger health systems for Universal Health Coverage, the UHC Partnership translates global commitments to country level impacts, reaching the most vulnerable populations in 115 countries. Here are some examples.

- COLOMBIA:** Social Primary Health Care approach helps communities lead healthier lives and gain better access to health services.
- EGYPT:** The implementation of the Universal Health Insurance Law covers all Egyptians, while also securing credible funding.
- ETHIOPIA:** The insured population now benefits from improved access to medicines.
- PHILIPPINES:** UHC law automatically enrolls every Filipino citizen into the National Health Insurance Program.
- SOUTH AFRICA:** The Presidential Health Compact, a five-year roadmap for health systems strengthening towards UHC, was signed in 2019.
- TIMOR-LESTE:** A Primary Health Care essential service package with comprehensive NCD services is helping address the burden of NCDs.
- UKRAINE:** Effective health financing reform helped increase primary health care access by 75%.

Read more stories from the field at [www.uhcpartnership.net](http://www.uhcpartnership.net)



### NCD support for Timor-Leste

- UHC-P providing tools to develop and implement **essential service package** which addresses growing burden of NCDs.
- The **Primary Health Care Essential Service Package** (PHC-ESP) was finalized to reorient the model of health services towards integrated people-centred health services and
- WHO supported the Ministry to conduct **service consumption forecasts, costing, and implementation feasibility assessment of the PHC-ESP**, addressing the recent changing health care needs, including management of NCDs.
- WHO and EU, through the UHC Partnership, are co-chairs of the **Timor-Leste Development Partners Forum**.
- ACP funding to support **COVID-19 response**



# What are the next steps?

- Develop and disseminate the tools and support countries in implementing NCD interventions through primary health care
- Systematic support to countries to
  - Strengthen prevention and disease focussed programmes
  - Promote integration of services to optimize NCD and health outcomes
  - Strengthen health system with the focus on delivery of NCD and health services
  - Move from catalytic to intensified support to countries for strengthening NCD services through PHC
- Sustained engagement of political leaders to invest in NCD prevention and control

# Thank you