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Landscape Assessment of NCDs in Bangladesh



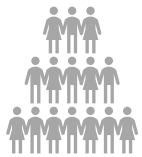


Bangladesh

Demographic Profile

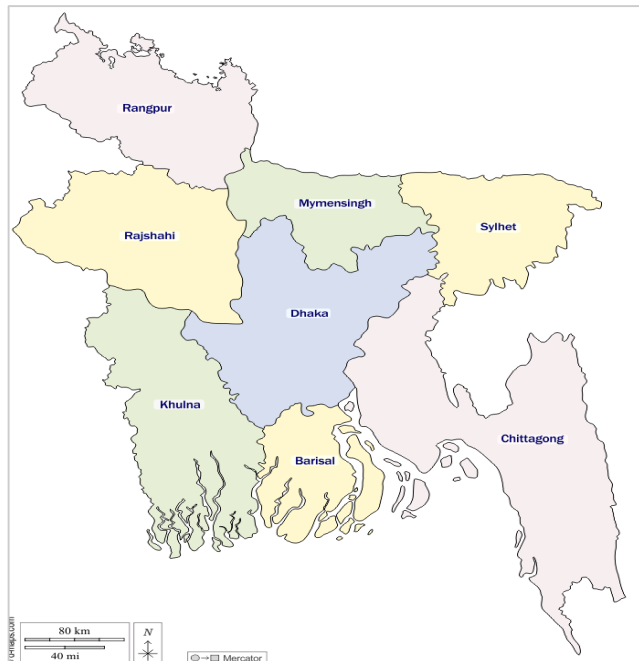


Total Population **168.22 million**



Majority of the population within the age group **15-49 years**

Bangladesh, a country situated in South Asia, is one of the most densely populated nations globally. There has been notable advancement in various health metrics within Bangladesh, including an increase in life expectancy at birth, a decrease in infant mortality, maternal mortality, and crude death rates. Moreover, the nation is actively striving to attain Universal Health Coverage. These enhancements are closely linked to the expansion of healthcare services throughout the country, encompassing extensive health initiatives, a rise in the quantity of government-run hospitals, and the enhancement of healthcare infrastructure in Bangladesh, alongside improvements in immunization efforts.



Urbanisation
Rural Population : **68.49%**
Urban Population : **31.51%**



Average annual growth rate
1.22%



Population Density
1153
(per sq. km)



Sex ratio at birth
98m/ 100f



Age Dependency Ratio
47
(% of working age population)



Fertility Rate
2
Births per woman

Source: Demography and Health survey, 2017-18 and Bangladesh health bulletin 2020, Bangladesh Bureau of Statistics, 2020,

WHO, World Bank

INTERNAL. This information is accessible to ADB Management and staff. It may be shared outside ADB with appropriate permission. Sex ratio at birth (male births per female births) - Bangladesh | Data (worldbank.org)



Bangladesh

Health System Overview

- The healthcare system in Bangladesh, overseen by the Ministry of Health and Family Welfare (MOHFW), is composed of a complex web of implementing agencies, regulatory bodies, and care facilities that extend from rural communities to tertiary-level hospitals.
- The MOHFW is responsible for national policy formulation, planning, and decision-making, which are implemented through various authorities and healthcare delivery systems.
- The system also includes private sector and NGO facilities that are regulated by the Ministry and its relevant bodies.

MOHFW was divided into two divisions in March 2017

Health Services Division

Focuses on policymaking related to **health matters, nursing care management, health financing,** and other areas.

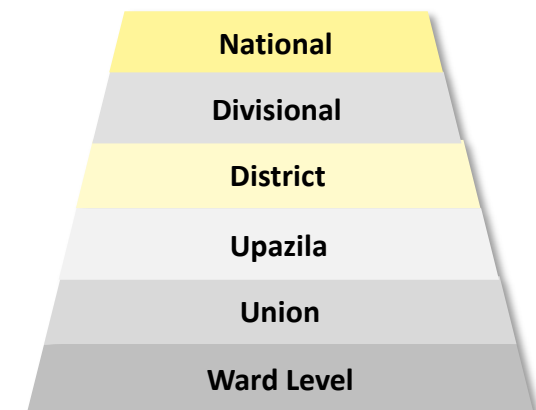
Medical Education and Family Welfare

Deals with policies related to **medical education, family planning, medical colleges/universities,** and registration of births and deaths

Directorate General of Health Services (DGHS)

It is the largest implementing agency under the MOHFW. It provides **technical assistance to the Ministry** in improving programs and interventions

Six Tier Structure

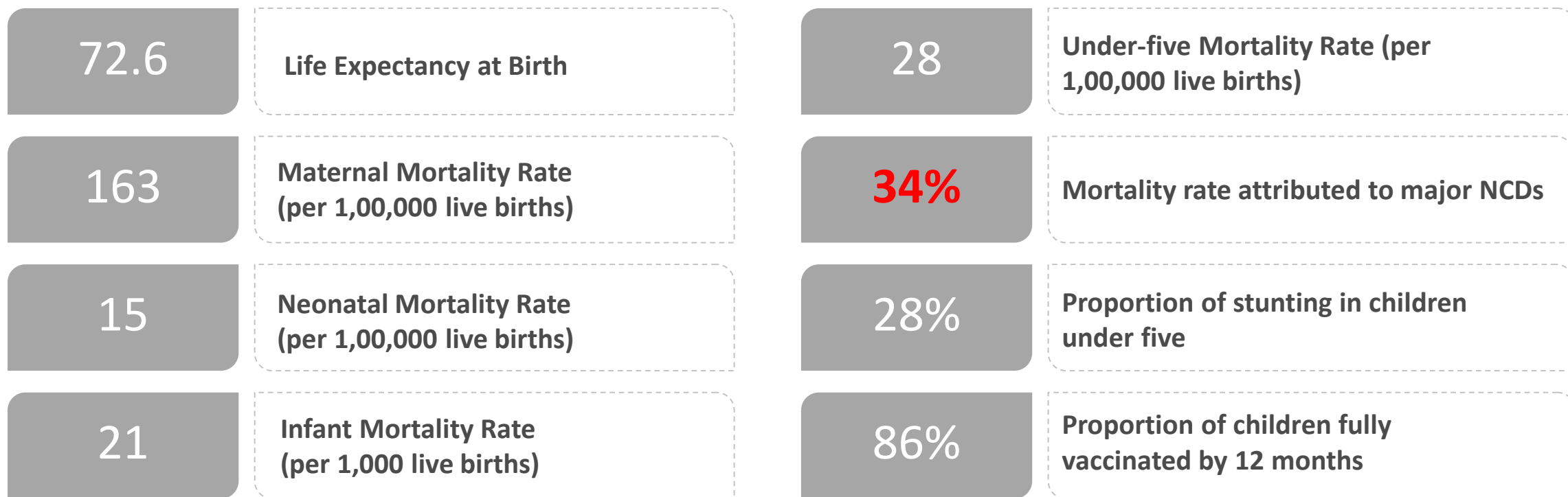




Bangladesh

Health Indicators

Bangladesh has made significant progress in several health indicators. **Life expectancy at birth has increased, infant mortality, maternal mortality and crude death rates have been reduced.** The country is also currently aiming to achieve **Universal Health Coverage**. These improvements can be associated with the **proliferation of healthcare services** across the country such as **extensive health campaigns, increase in the number of government hospitals and healthcare infrastructure in Bangladesh, improved immunisation** etc.

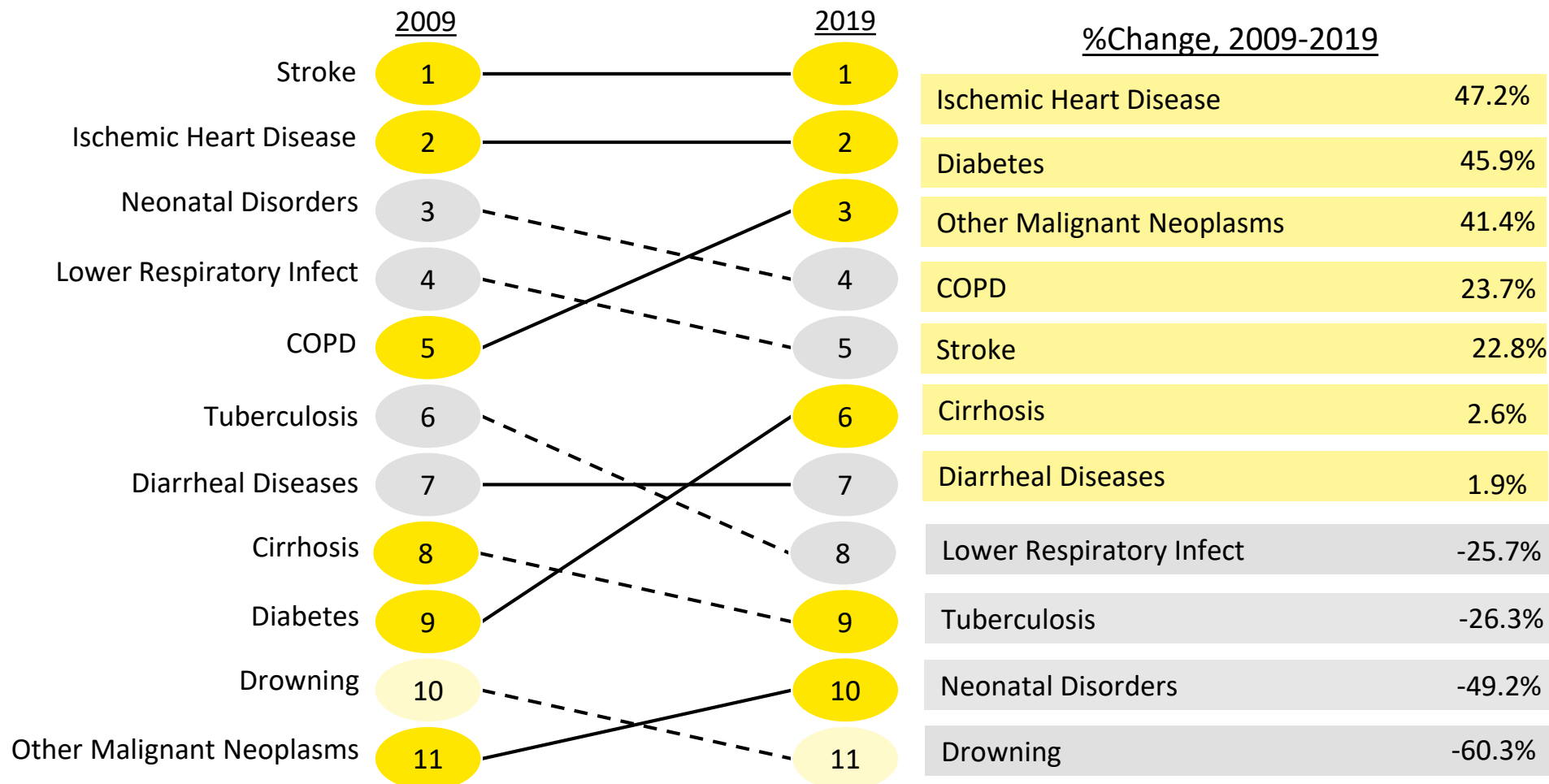




Bangladesh

Epidemiological Profile

The data in this figure depicts that the disease burden due to non-communicable diseases has increased from 2009-2019. Stroke, ischemic heart disease and COPD are leading causes of DALYs.



COPD: Chronic Obstructive Pulmonary Disease

DALY: Disability Adjusted Life Year



Non-Communicable



Communicable



Injuries

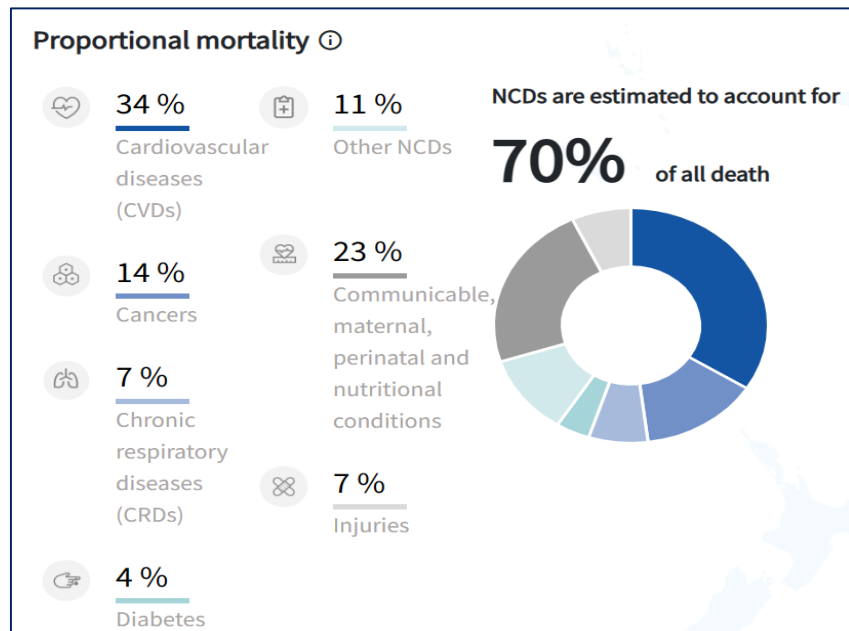




Bangladesh

Non-Communicable Diseases Burden

Prevalence of major NCDs and Mortality



Risk factors driving deaths and disabilities combined

Risk Factors	Rank (2009)	Rank (2019)	Change in DALYs per 100k (2009-2019)
High blood pressure	4	3	669.1%
Dietary risks	5	5	229.3%
High body-mass index	9	7	330.5%
High fasting plasma glucose	7	6	308.5%
Malnutrition	1	1	-4194.2%
High LDL	10	10	109.9%
Air pollution	2	2	-1229.7%
Tobacco	3	4	-6.9%
Occupational Risks	8	8	-61.9%
WaSH	10	10	-545.5%

Prevalence of risk factors attributing to major NCDs (STEPS Survey)

Tobacco Consumption
 20.1%-Smokers
 24.8%-Chewing
 41.7% men
 25.7% women

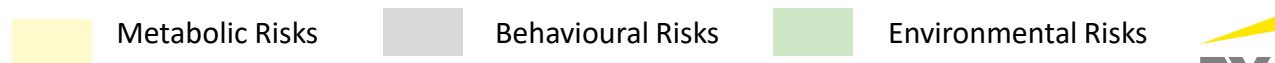
High Salt Intake
 9.5 gm /day
 48.2% - regular salt intake
 13.5%- consume processed food high in salt

Insufficient Physical Activity
 14.6% men
 23.9% women

Obesity
 28.9%: ≥ 25 kg/m²
 5.2%: ≥ 30 kg/m² (obese)

High Blood Pressure
 24.5% men
 24.6% women

High Blood Glucose
 9.7%
 8.9% men
 10.5% women

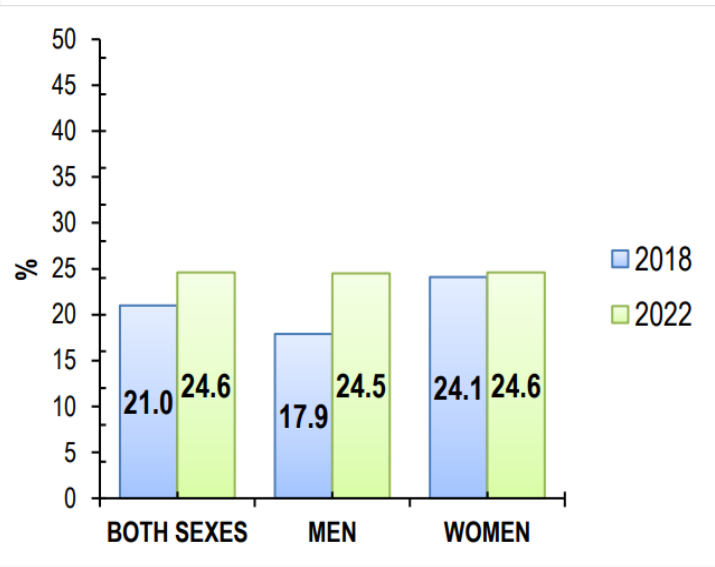


Major Risk Factors Associated with NCDs - Hypertension



Bangladesh

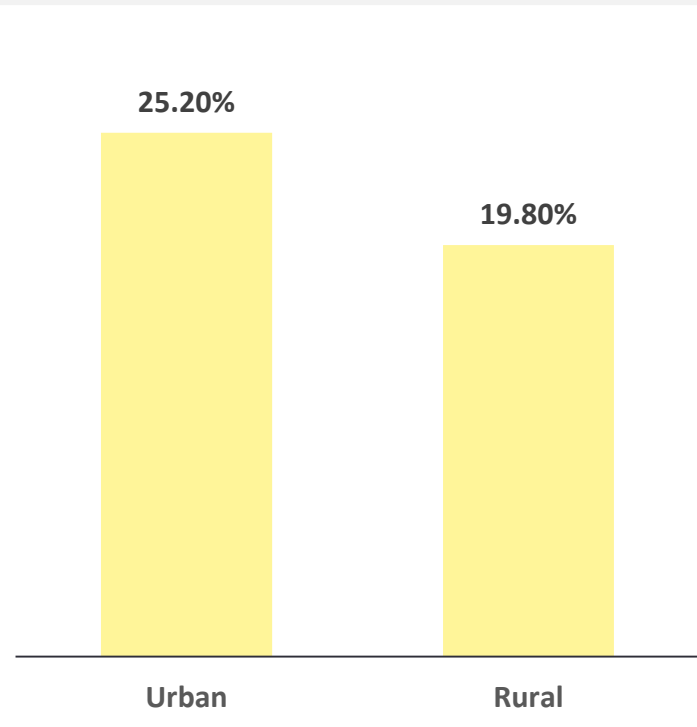
Gender wise prevalence of hypertension



Percentage with raised BP (SBP \geq 140 and/or DBP \geq 90 mmHg or currently on medication for raised BP)

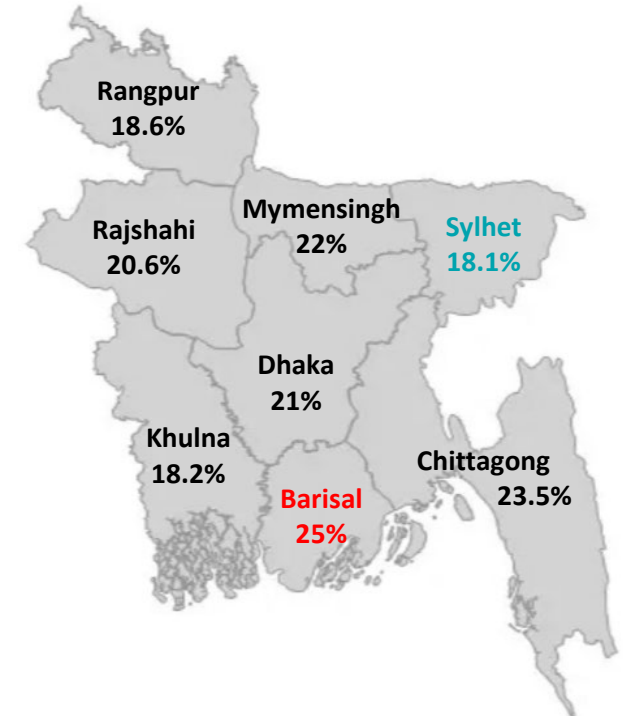
As per the STEPS Survey 2018 and 2022, the prevalence of hypertension was higher in women than men by a difference of 6.2% and it lessens to 0.2% in 2022.

Urban-Rural prevalence of hypertension



As per the STEPS Survey 2018, the prevalence of hypertension was higher in residents of urban households compared to rural households

Regional differences in hypertension prevalence (18-69 years)



As per the STEPS Survey 2018, The prevalence of hypertension was observed to be the highest in the Barisal region- 25.0% followed by 22.5% in Chittagong and lowest in the Sylhet region 18.1%

Source: <https://www.who.int/publications/m/item/2018,2022-steps-country-report-bangladesh>

Major Risk Factors Associated with NCDs - Tobacco

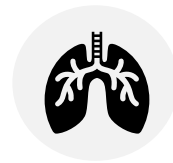


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1,26,000

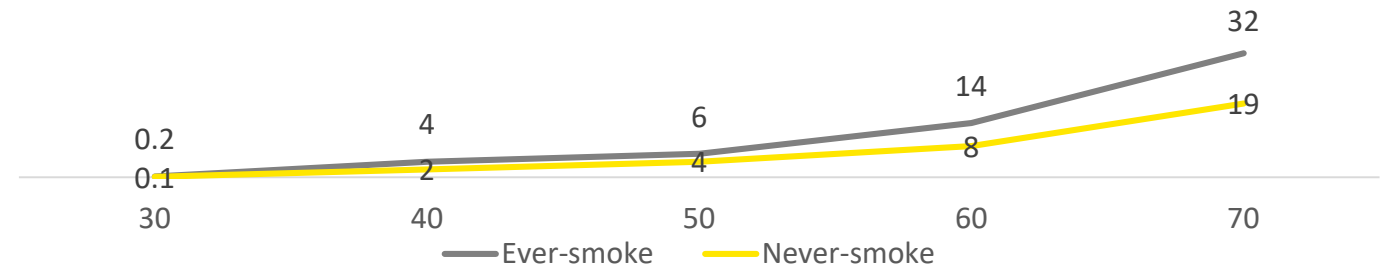
Total number of deaths due to Tobacco Consumption (2018)



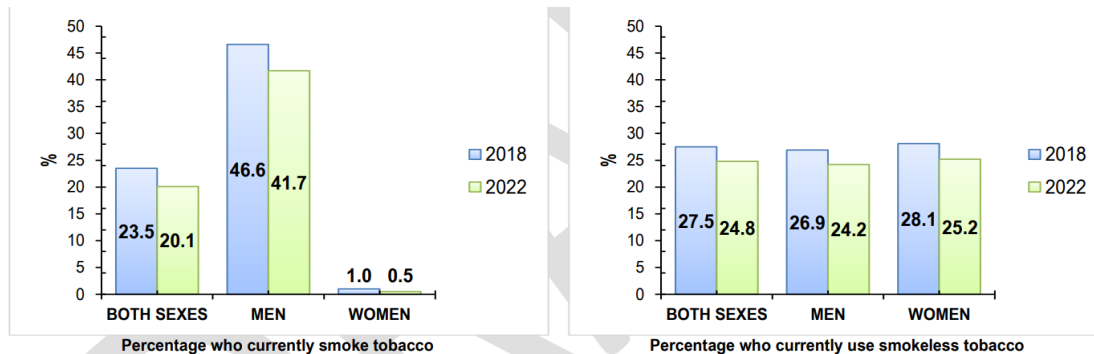
1 in 6

NCD Deaths is attributable to tobacco use (2018)

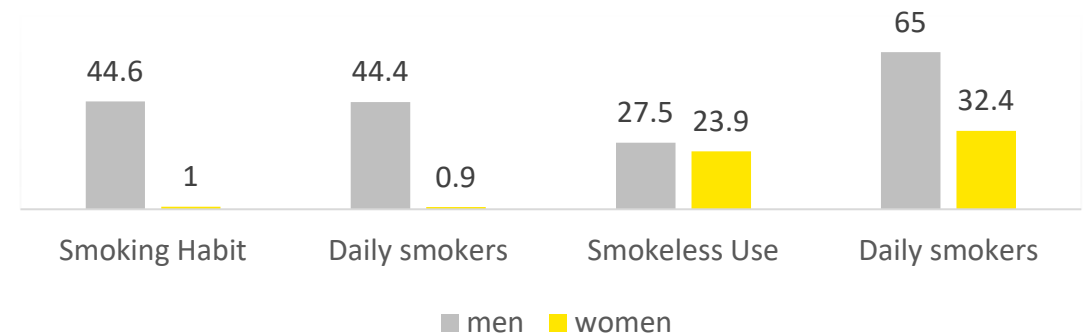
Cumulative probability of dying between the ages of 30-70 years among male ever-smokers and never-smokers in Bangladesh (%)



Prevalence of Tobacco amongst all men and women aged 18-69 years (%)



Tobacco consumption among men and women (%)



As per the STEPS Survey 2018 and 2022, the prevalence of any tobacco use was significantly higher among men than women. Smoking was habit of 46.6% men and 1.0% women among the respondents. Daily smoker was 44.4% of men and 0.9% of women. Further, the probability of males (30 to 70 years) dying is higher for those who ever smoked vis a vis those who never smoked.

Prevalence and Impact of NCDs – Cancer



Bangladesh

1,09,439

Total number of deaths due to Cancer (2019)

- ▶ Population based cancer registry- **113 case per 100000-**
- ▶ Digestive organ carcinoma-17
- ▶ Lip, oral cavity,pharynx-15
- ▶ Breast-9, Resp System -7



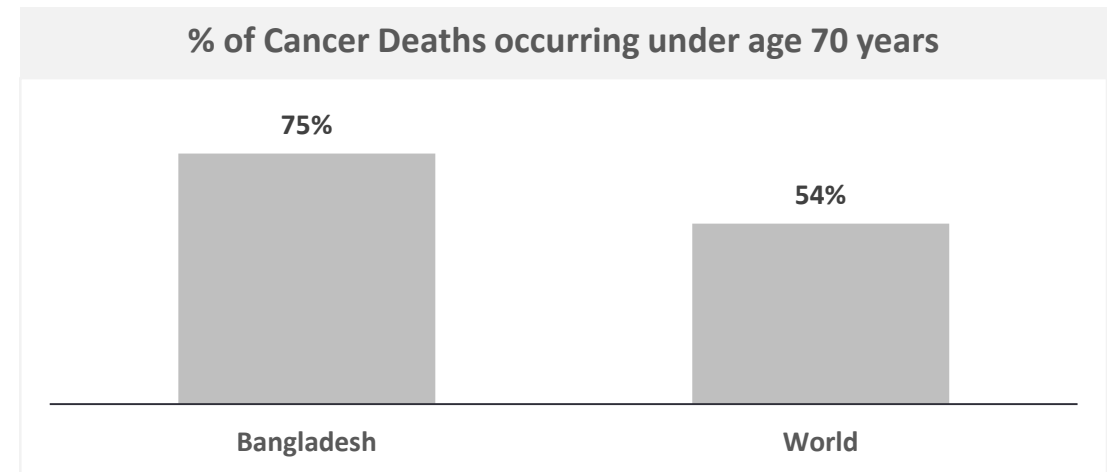
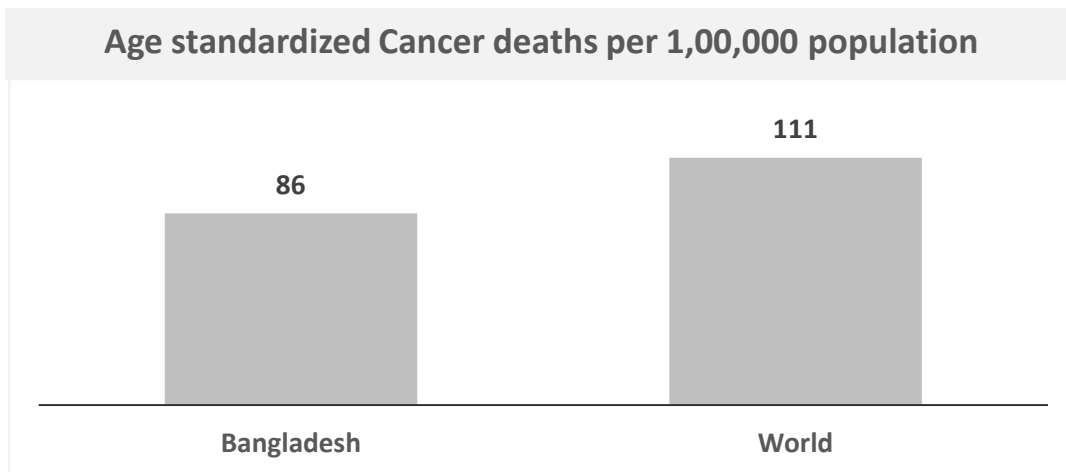
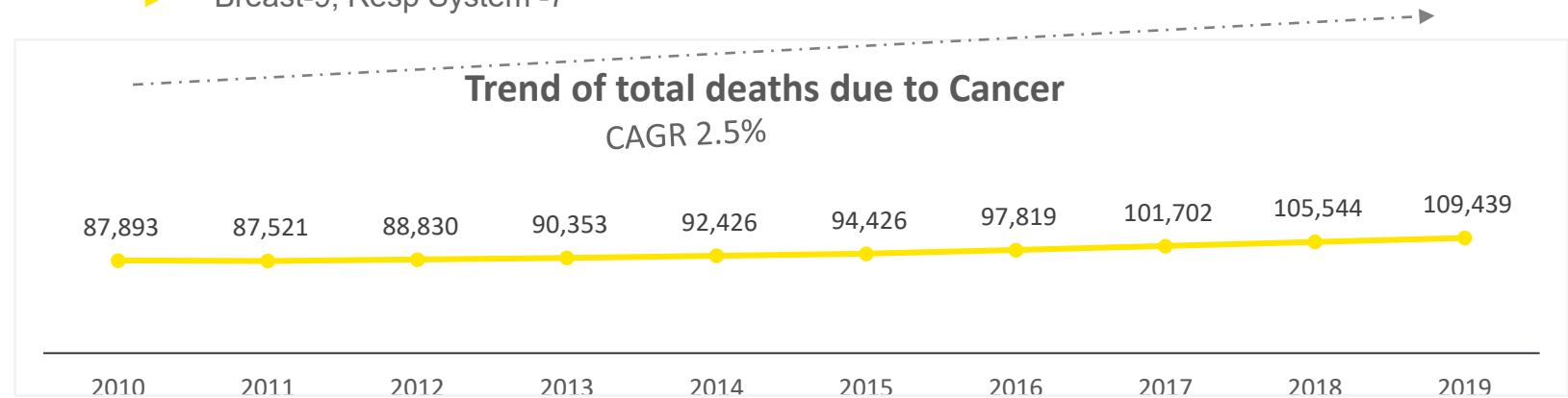
64,005 (58%)

Total male deaths due to Cancer (2019)



45,343 (42%)

Total female deaths due to Cancer (2019)

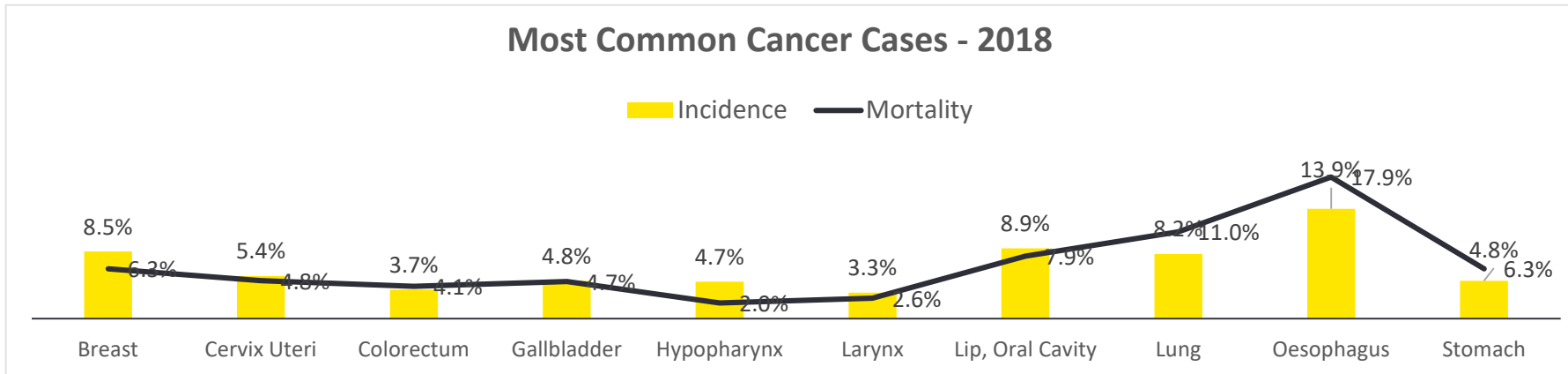


Source: <https://ncdportal.org/CountryProfile/GHE110/BGD#mor2>
ncdc, DGHS, Research report final, 2021-2022. www.ncdc.dghs

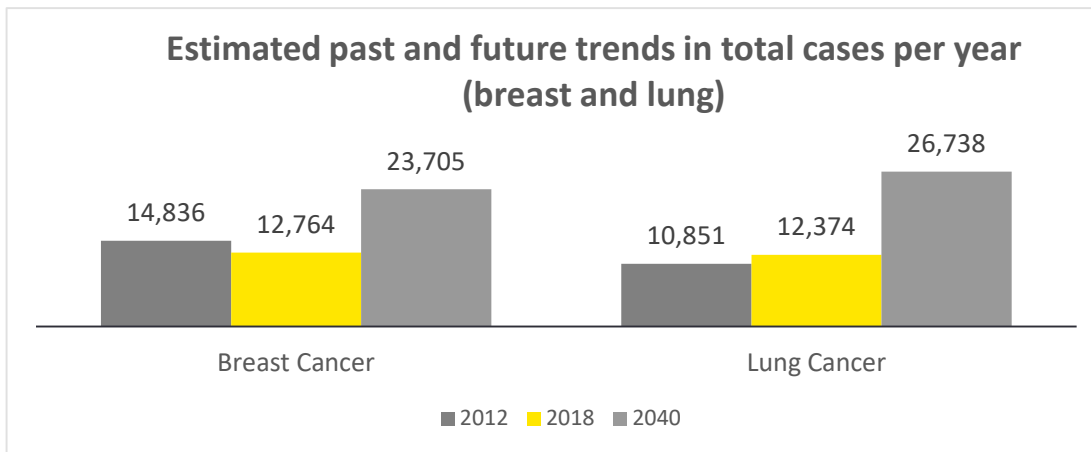
Prevalence and Impact of NCDs – Cancer



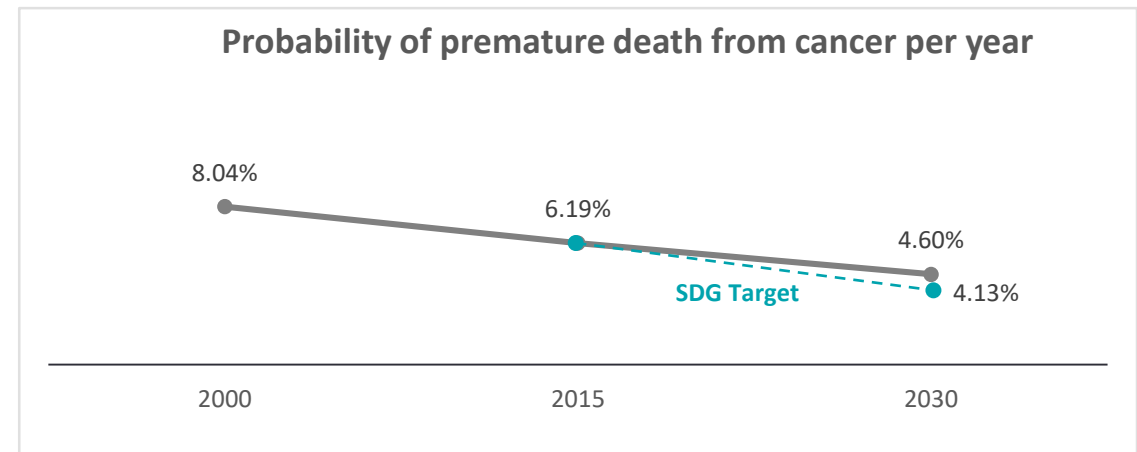
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In 2018, Oesophageal cancer had the highest incidence rate at 13.9%, and highest mortality rate at 17.9%, followed by Lip, Oral Cavity Cancer with incidence of 8.9% and breast cancer having with incidence of 8.5%



For the period from 2018 to 2040, the projected CAGR for breast cancer cases is approximately 2.85%, and for lung cancer cases, it is approximately 3.56%



The probability of premature death from cancer per year has declined steadily from 8.04% in 2000 to 6.19% in 2015, with a projected decrease to 4.60% by 2030, closer to achieving the SDG target of 4.13%.

Source: [bqd_2020.pdf \(who.int\)](#)



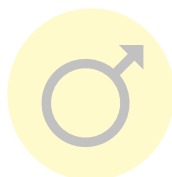
Prevalence and Impact of NCDs – Cardiovascular Diseases



Bangladesh

2,73,338

Total number of deaths due to Cardiovascular Diseases (2019)



1,44,240 (53%)

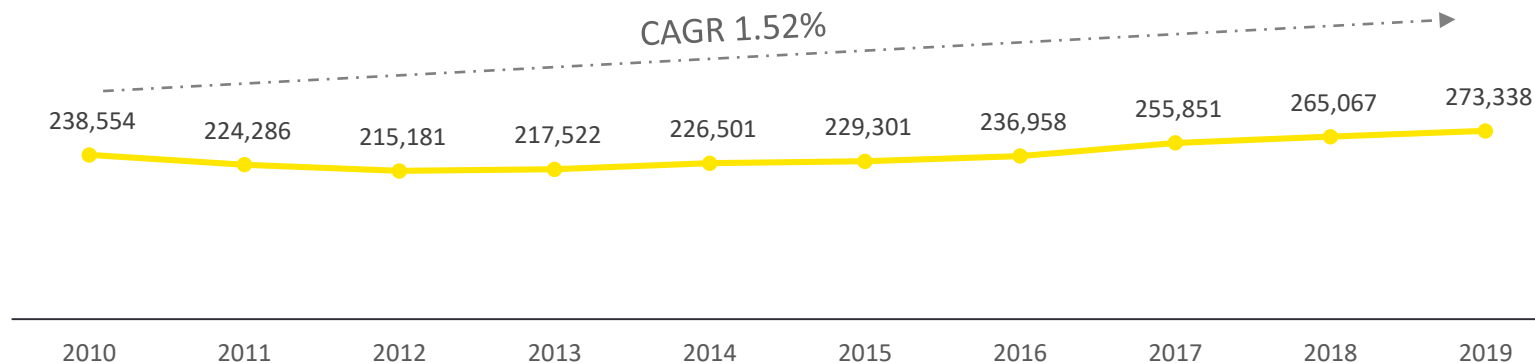
Total male deaths due to CVD (2019)



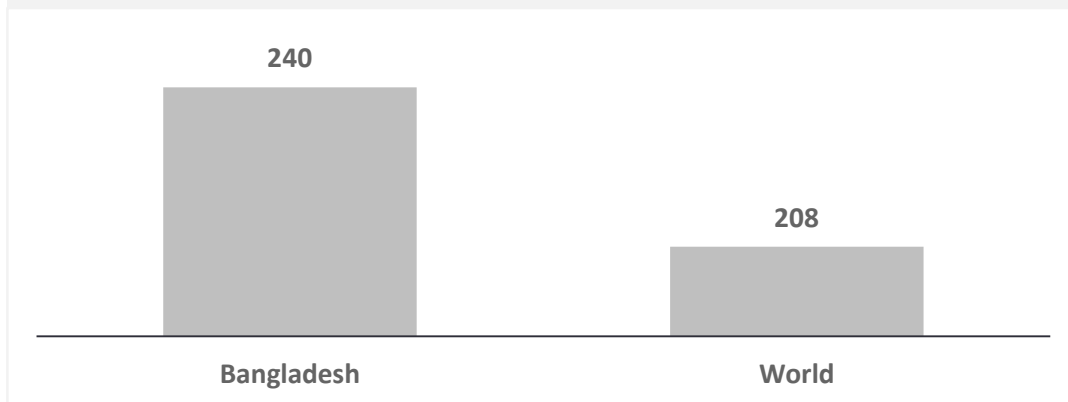
1,29,099 (47%)

Total female deaths due to CVD (2019)

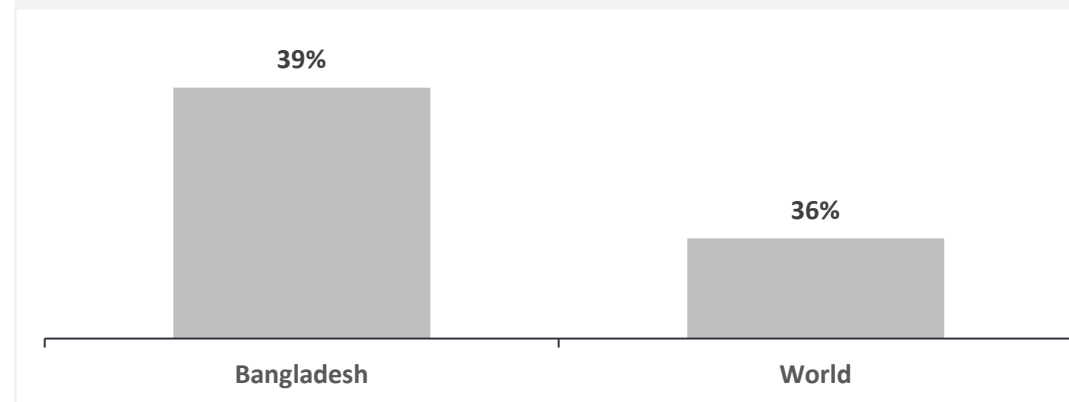
Trend of total deaths due to Cardiovascular Diseases



Age standardized CVD deaths per 1,00,000 population



% of CVD Deaths occurring under age 70 years (**106,601**)



CVD: Cardiovascular Diseases

Source: <https://ncdportal.org/CountryProfile/GHE110/BGD#mor2>

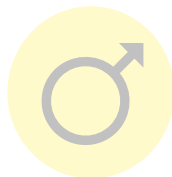
Prevalence and Impact of NCDs – Chronic Respiratory Disorders



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58,281

Total deaths due to Chronic Respiratory Diseases (2019)



34,389 (59%)

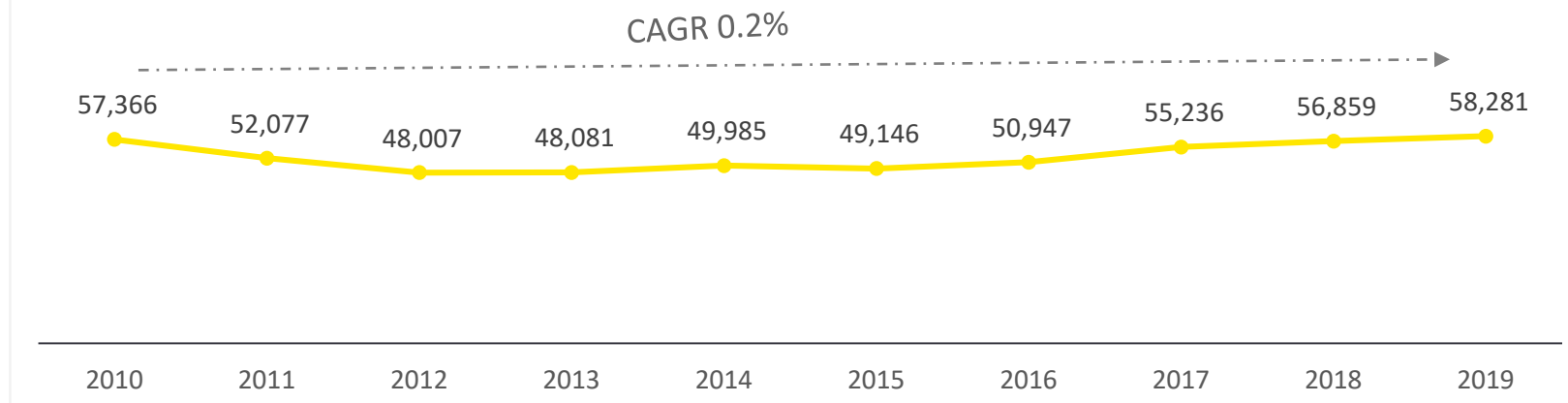
Total male deaths due to CRDs (2019)



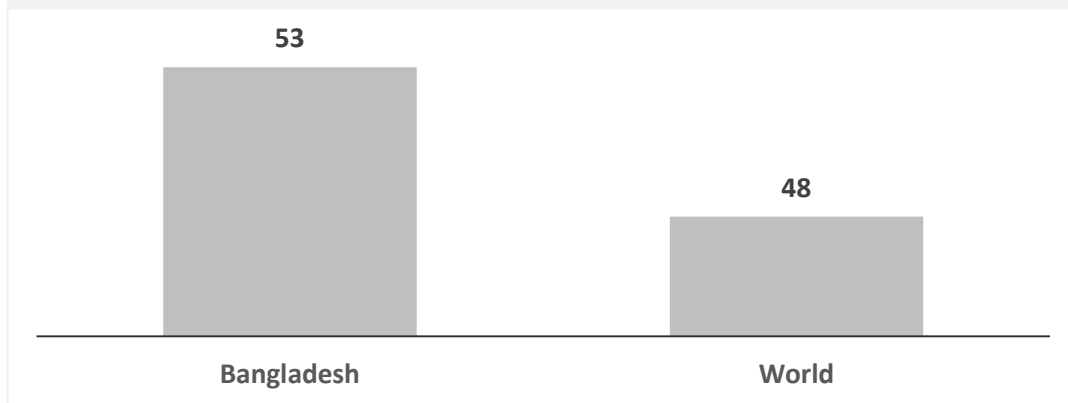
23,892 (41%)

Total female deaths due to CRDs (2019)

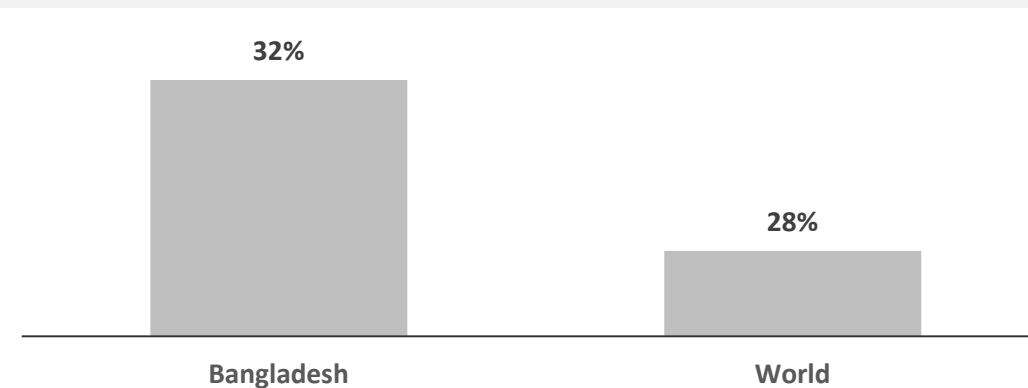
Trend of total deaths due to Chronic Respiratory Diseases



Age standardized CRD deaths per 1,00,000 population

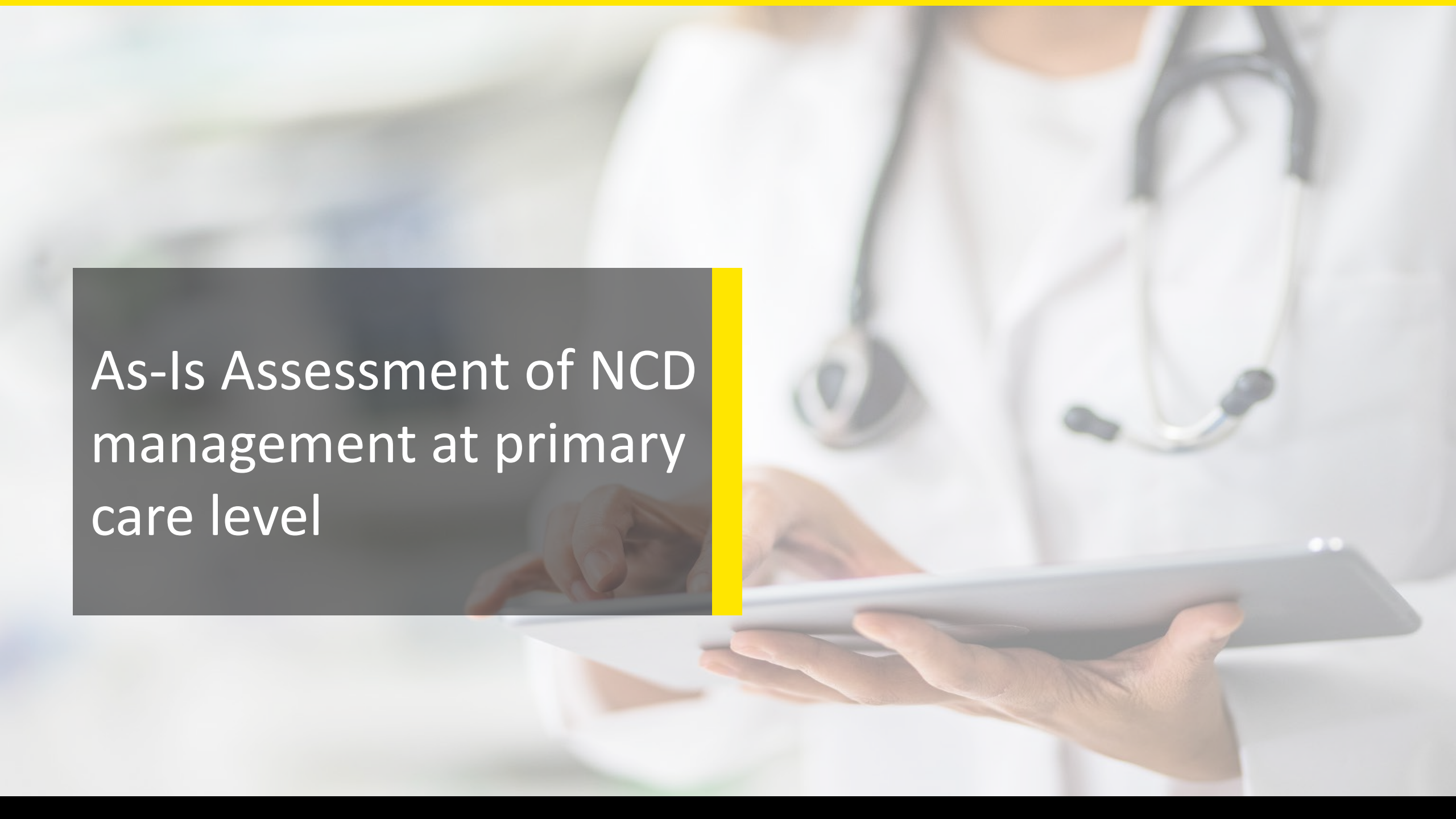


% of CRD Deaths occurring under age 70 years



CRD: Chronic Respiratory Diseases

Source: <https://ncdportal.org/CountryProfile/GHE110/BGD#mor2>



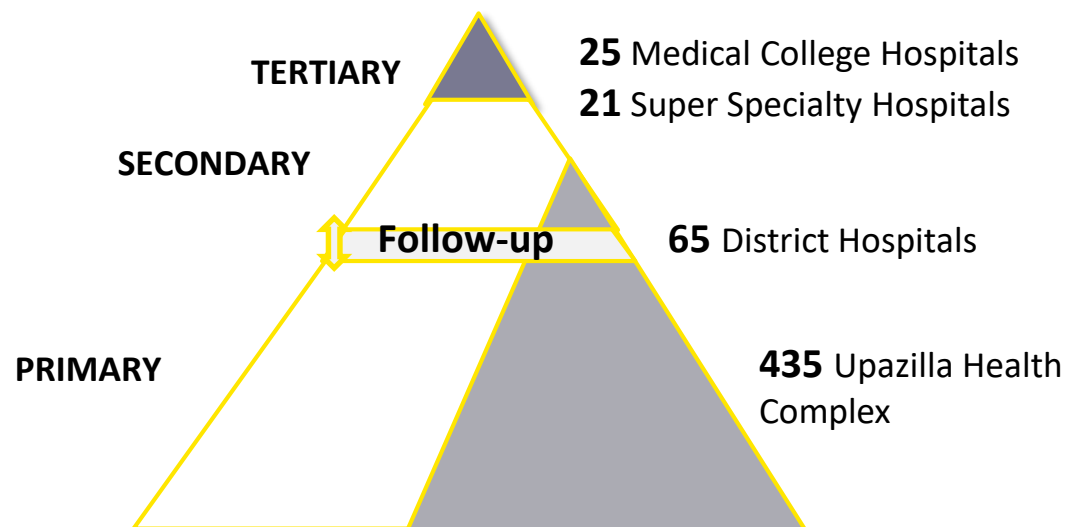
As-Is Assessment of NCD
management at primary
care level



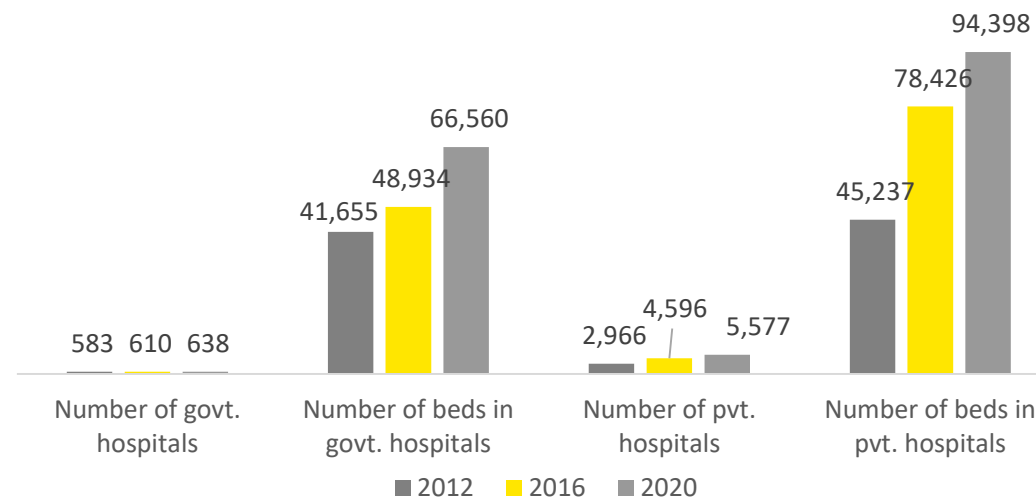
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Health Infrastructure

Number of Public Health Facilities at primary secondary and tertiary care levels



Increase in hospitals and beds by year



2,277

Total number of Government health facilities under DGHS

2,006

Total number of primary-level facilities (except community clinics)

271

Total number of secondary and tertiary-level facilities

5,577

Total number of registered private hospitals and clinics

9,529

Total number of registered private diagnostic centres

7,854

Total number of facilities run by DGHS, incl. private hospitals





Bangladesh

Primary Health Infrastructure

Primary healthcare facilities of Bangladesh are composed of Upazila health complexes (UHCs), union-level facilities (ULFs), and community clinics (CCs).

47%	General services availability for community clinics	100%	Availability of basic equipment is the highest for cervical cancer in the UHCs
83%	General services availability for Upazila health complexes	24%	Availability of basic equipment is the lowest for Diabetes Mellitus in the ULFs
72%	Guidelines and staff accessibility are the highest for Diabetes Mellitus in the UHCs	100%	Availability of essential medicine for CRI is 100% in both UHCs and ULFs compared to 25% in private facilities

The diagnostic capacity for CVD and essential medicine for cervical cancer is unavailable at all levels of public and private healthcare facilities. The overall mean Readiness Index for each of the four NCDs is below the cut-off value of 70%, with the highest (65%) for CRI in UHCs but unavailable for cervical cancer in CCs.

Adoption of HMIS is going on. Quality of Service delivery is not ensured due to lack of available medicine, equipment, diagnostic tools and trained and skilled health workers.

Source: Kabir A, Karim MN, Billah B. The capacity of primary healthcare facilities in Bangladesh to prevent and control non-communicable diseases. BMC Prim Care. 2023 Mar 2;24(1):60. doi: 10.1186/s12875-023-02016-6. PMID: 36864391; PMCID: PMC9979470.





Bangladesh

Health Information System

Initial State (Ten Years Ago)

- ✓ **Disorganized structure** around unique program and organizational needs
- ✓ **Health data confined to program silos**
- ✓ **Delayed data transmission** from community clinics, Upazila Health Complexes, and district-level facilities
- ✓ **Poor data quality**

Key Challenges Identified

- ✓ **Lack of governance and decision-making** due to inefficient HIS
- ✓ **Fragmented HIS landscape**
- ✓ **Inaccessibility of data to policy-makers** and health planners
- ✓ **Heavy paperwork burdens**

Current Status of Implementation

- ✓ Adoption of **DHIS2, a free, open-source software** in **2009**
- ✓ Bangladesh became the largest DHIS2 deployer globally in 10 years
- ✓ **Connection established** between central, divisional, district, and sub-district health facilities, as well as community clinics
 - **DHIS2 Central Database** (Upazila level and Above)
 - **DHIS2 System** (Union level and below - Facilities & community Field Workers)
 - **National Cervical & Breast Cancer Surveillance System**

Impact

- ✓ Timely availability of **routine health information**
- ✓ **Reporting rate increased** from 10% (2014) to an average of 98% (August 2018) at community clinic level
- ✓ Enhanced **data quality and accessibility**
- ✓ **Continued expansion and optimization of DHIS2** for sustained impact on Universal Health Coverage (UHC) goals

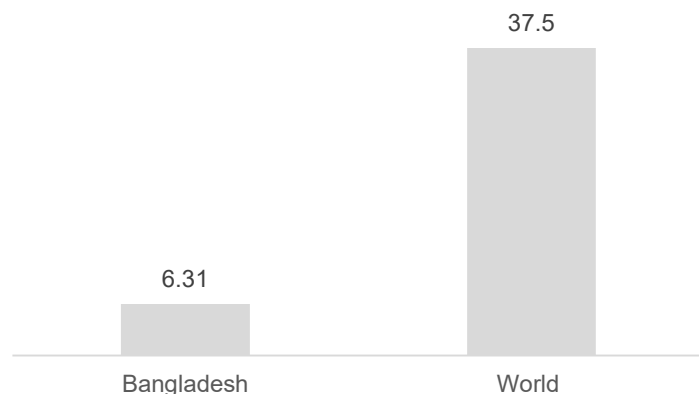
Source: UNICEF: Transforming the health information system in Bangladesh through the implementation of DHIS- Case study for Bangladesh

Healthcare Workforce



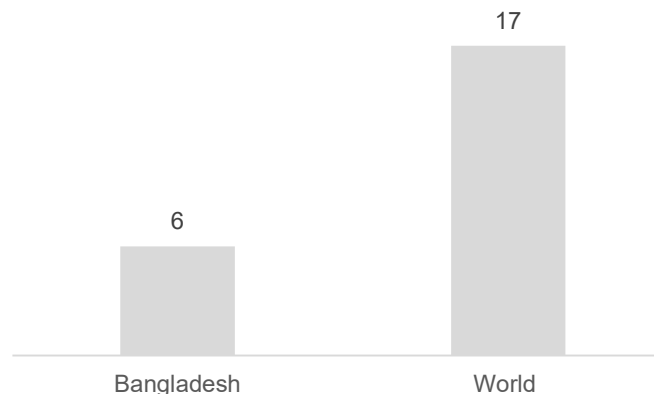
Bangladesh

Nurses and Midwives per 10,000 population



Bangladesh has almost **6 times less nurses** and midwives per 10,000 population at 6.31 as compared to the world average of 37.5

Physicians per 10,000 population



Bangladesh has approximately **less than 3 times of the world average of physicians** per 10,000 population, with 6 compared to 17.

As of 2019, Bangladesh experiences a severe health workforce crisis characterized by a shortage of qualified providers, an inappropriate skills-mix, and inequity in distribution. With less than one nurse per doctor, Bangladesh demonstrates low efficiency in the health workforce composition. Strengthening the national health system is imperative by adopting evidence-based policy reforms that specifically address the health workforce challenges and gaps.

108,000

MBBS

11,350

BDS

Registered Doctors

1.1

Rural areas

18.2

Urban areas

No. of doctors per 10,000 population

2.17

per 10,000 population

Community and domiciliary health workers under the DGHS

0.34

per 10,000 population

Medical technologists under the DGHS

71,369

Registered nurses, midwives and allied professionals

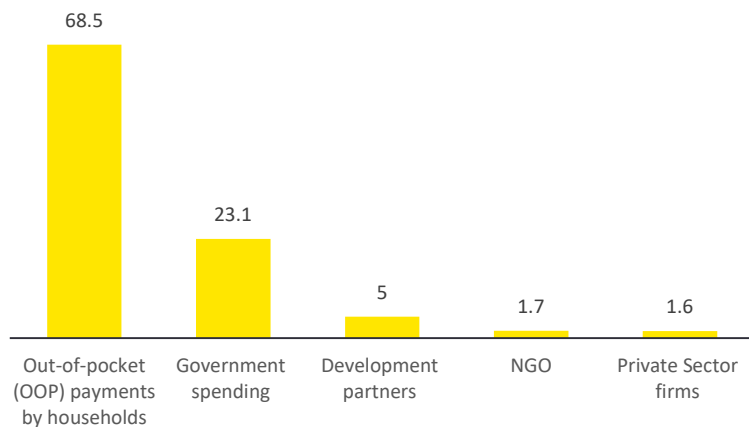


Bangladesh

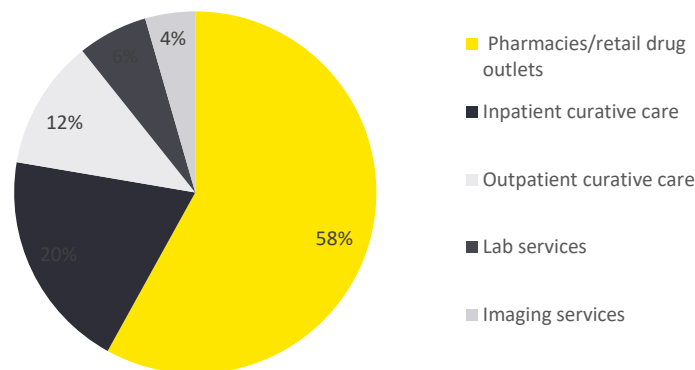
Healthcare Financing (1/2)

Total Health Expenditure accounts for 2.8% of Bangladesh’s Gross Domestic Product (GDP) in 2020, while Current Health Expenditure’s share in GDP is 2.6%. On average around 15% of total households faced catastrophic health expenditure due to the high burden of out- of-pocket payments. Analysis of Bangladesh HIES (2005, 2010, and 2016) data shows that NCD-affected families spending increased more than twice as much as unaffected households

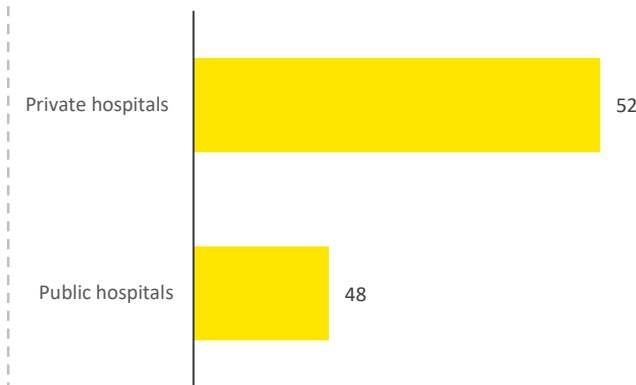
% of Total Health Expenditure, 2020



% of OOP expenditure, 2020



Health Expenditure by providers (in %)



Although government expenditure in healthcare is increasing every year, its relative share to total public consumption has declined over the years.

Out-of-pocket (OOP) expenditure is a payment made by households directly to providers in obtaining healthcare goods and services. It is increasing from 56.9% in 1997 to 63.3% in 2012 to 68.5% in 2020 of total health expenditure (THE).

Since 2016, the difference in outlay has been minimal, and public hospitals spending reported higher hospital expenditures in 2018 and 2019.





Bangladesh

Healthcare Financing (2/2)

The amount and source of healthcare financing

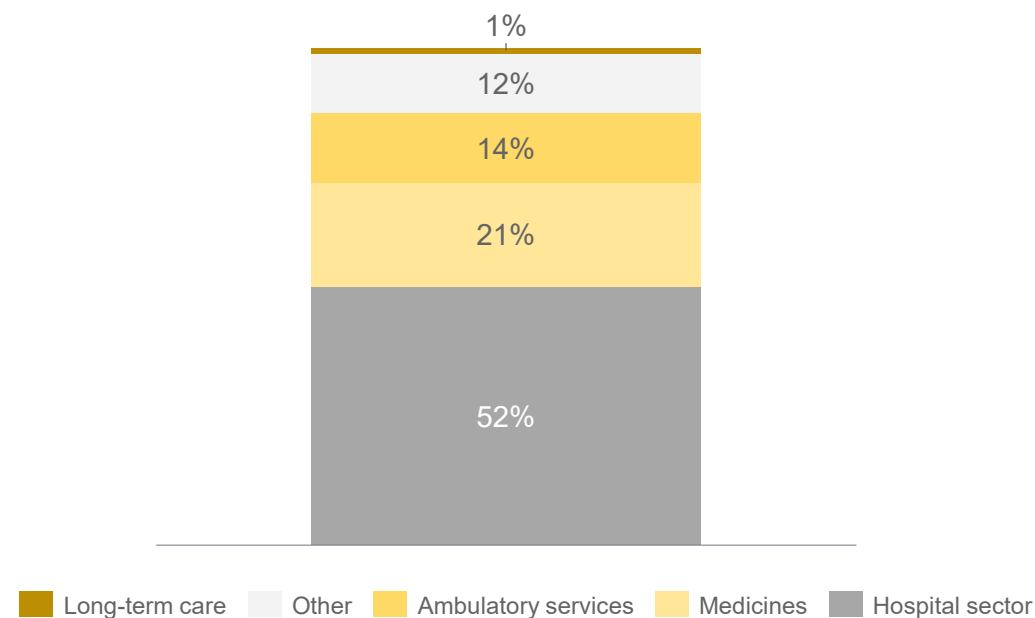
Health budget allocation (2023-24) :
38,052 (In BDT crore)

- ✓ Universal Health Coverage in Bangladesh more than doubled between 2000 and 2019, from 24 to 51, although remains below the average for lower middle-income countries. (49 and 58 respectively)
- ✓ As of 2019, Public spending on health as % GDP is 0.5% of GDP
- ✓ Around 83.69 % population who need health services, receive those from the private sector.
- ✓ Bangladesh's dedicated NCD control budget is small (4.2% of health sector programme, or Taka 6.8/US cents 8.2 per capita)

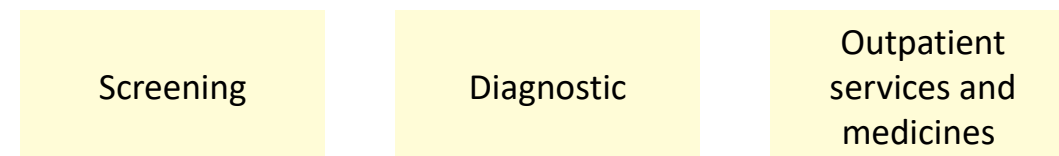
Indicators	1997	2007	2015	2020
Total health expenditure (Taka million)	46763	156977	448741	777347
Total health expenditure as percent of GDP (%)	2.3	2.9	3	2.8
Per capita health expenditure (Taka)	382	1104	2862	4578

BDT: Bangladeshi taka
NGO: Nongovernment Organization
TB: Tuberculosis
PHC: Primary Health Centre

Public health expenditures in 2022



PHC services



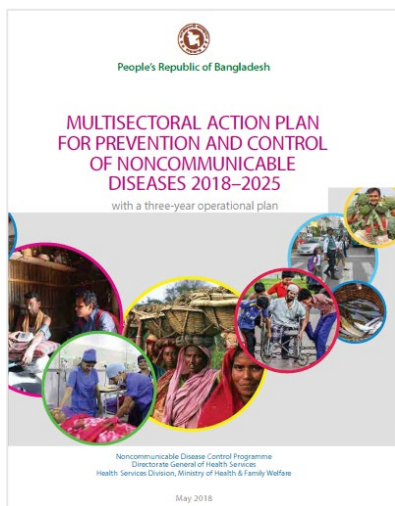
Source: Health Care Financing Strategy 2012-2032, National Budget Summary Health (2023-24)
WHO Health Financing Progress Matrix assessment Bangladesh 2021



Government Initiatives for NCD Management

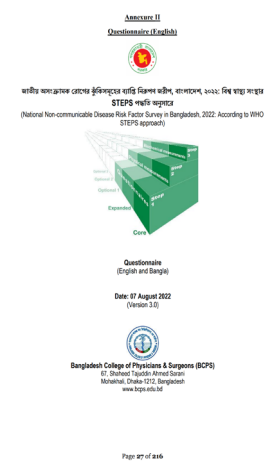
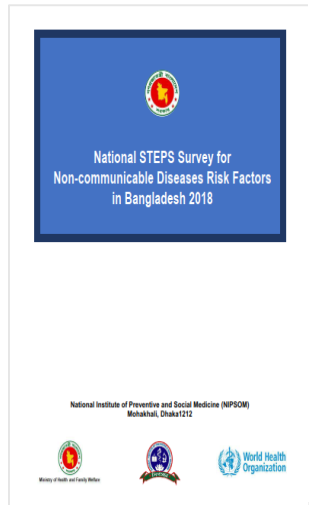


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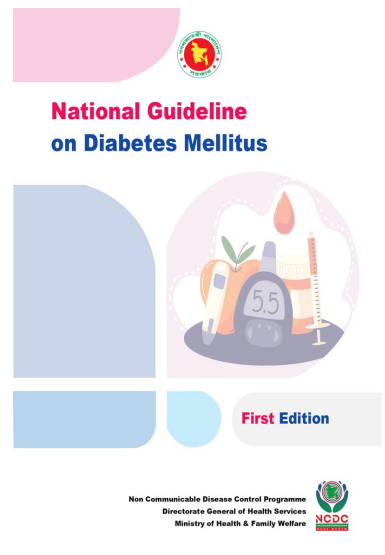
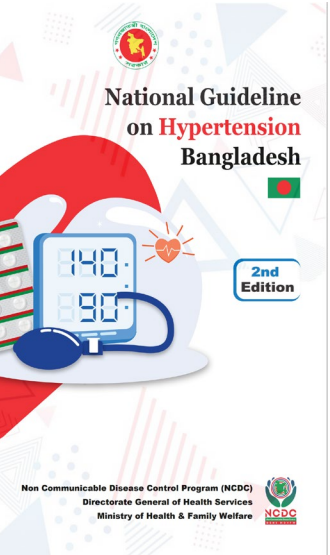


Multisectoral Action Plan for Prevention and Control of Non-Communicable Diseases (2018-2025)
 The national action plan serves as a blueprint for key stakeholders. The **4 action areas** identified include;

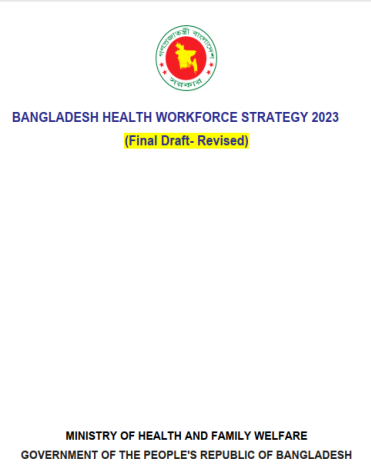
- 1. Advocacy, leadership and partnerships,**
- 2. Health promotion and risk reduction,**
- 3. Health systems strengthening** for early detection and management of NCDs,
- 4. Surveillance, monitoring, evaluation, and research**



National STEPS Survey for Non-Communicable Diseases Risk Factors (2018,2022)
 A nationwide STEPS survey was conducted in Bangladesh (2018,2022) among adults aged 18-69. It revealed **high prevalence of non-communicable disease (NCD) risk factors**. Key findings include **reduced tobacco use, inadequate fruit and vegetable intake, elevated salt consumption, low physical activity, minimal alcohol consumption, notable obesity rates, and significant hypertension and diabetes cases.**



National Guidelines for Management of Hypertension,DM (2013,2023)
 Country specific guidelines for management and prevention of hypertension were prepared by DGHS with technical assistance of WHO. The guidelines present a detailed outline on the **classification** of hypertension, DM, **diagnosis** and assessment of patients, **investigations, algorithm for management** of hypertension,DM selection of **antihypertensive drugs**,Antidiabetic agents, referral mechanisms, and **targeted goals** for lowering hypertension and DM



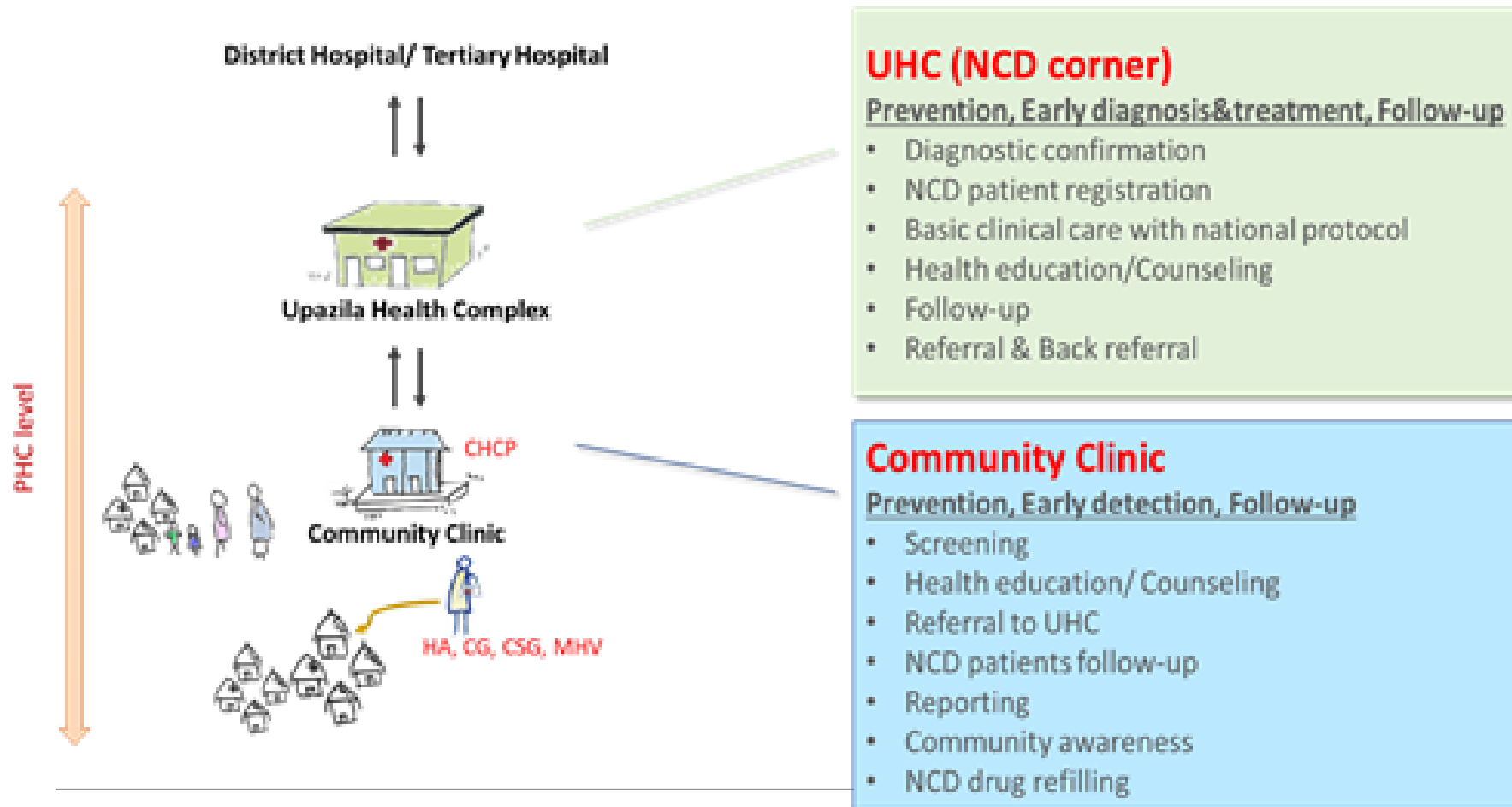
Bangladesh Health Workforce Strategy 2023
 The strategic plan outlines actions to address healthcare workforce (HWF) challenges in Bangladesh until 2030. Key actions include updating HWF requirements, **improving recruitment, deploying health workers equitably, and aligning workforce production with projected needs**. Strategies also focus on **training, quality assurance, performance management, motivation,** and developing a comprehensive information system for **evidence-based decision-making, etc.**





Current NCD management model

NCD management model at PHC level

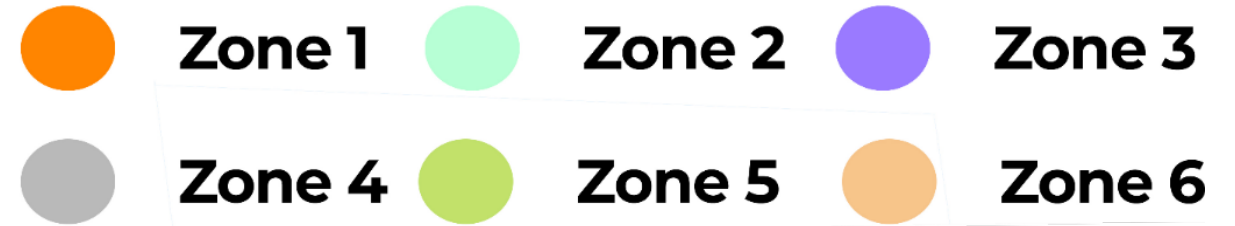
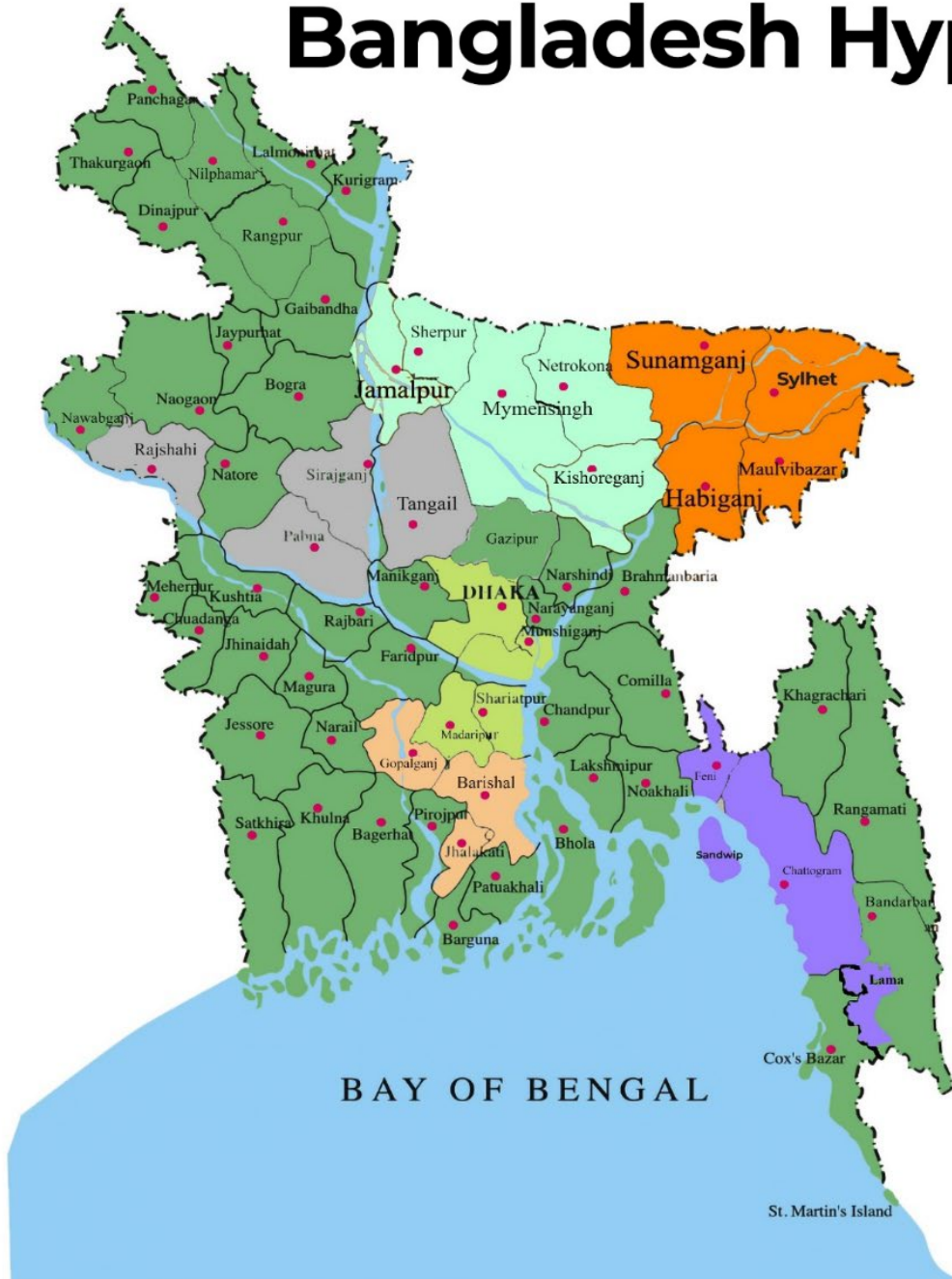


WHO package of interventions for non-communicable diseases (PEN)

PEN • expanding to nation-wide under the OP (NCDC)

The NCDs management model promotes prevention, early detection, and follow-up at a community level, as well as referral to the UzHC level for early diagnosis and treatment along with medication. Basically, this focus on Diabetes and hypertension in the model. Model include: Installation of NCDs corner NCDs Training to health personnel, Medicines supplies.

Bangladesh Hypertension Control Initiative



23 Districts

182 UHCs

38.04 million adult

8 million hypertensive patients

Area (sq. km) 52991.73



Project implementing 5 components of WHO-HEARTS package to increase hypertension and DM treatment and control

Bangladesh Type 2 Diabetes Management Protocol at Primary Health Care Level*

Test adults who are > 40 years, patients who have symptoms of diabetes, pregnant women during antenatal checkup

(FPG > 126 mg/dl and < 180 mg/dl) OR (FPG < 111 and < 180 mg/dl) OR (HbA1c > 6.5%)

Counsel on diet and physical activity

TEST Urine Ketones

Step 1: BEGIN METFORMIN, 500 mg once daily**

Step 2: REVIEW IN 1 MONTHS: If goal not achieved** INCREASE METFORMIN to 1000 mg once daily

Step 3: REVIEW IN 1 MONTHS: If goal not achieved** INCREASE METFORMIN to 1000 mg twice daily

Step 4: REVIEW IN 1 MONTHS: If goal not achieved** ADD GLICLAZIDE 40 mg once daily*

Step 5: REVIEW IN 3 MONTHS: If goal not achieved** ADD GLICLAZIDE 40 mg twice daily INCREASE GLICLAZIDE to 80 mg twice daily

Step 6: REVIEW IN 3 MONTHS: If goal not achieved, despite** adherence to medication, healthy diet and physical activity REFER to higher level of care for starting insulin

MANAGEMENT OF ACUTE COMPLICATIONS

Severe hypoglycemia: glucose < 2.8 mmol/L or signs of hypoglycemia

- If conscious, give a sugar-sweetened drink
- If unconscious, give 20-50 mL of 50% glucose (diluted) intravenously over 2-3 minutes. Severe hypoglycemia: plasma glucose < 2.8 mmol/L and/or ketones 2+ or signs and symptoms of severe hypoglycemia
- Intensify step 5 (NICE) T1D in 2-4 hours; continue at 1 liter every 4 hours; REFER to higher level of care

SCREENING FOR CHRONIC COMPLICATIONS

- All diabetic, visit and regularly
- Measure blood pressure, review medications as per hypertension protocol
- Measure height and weight and calculate BMI
- Assess risk of liver, kidney, retinopathy, foot ulcers, sensory neuropathy by neurological presence of heeled or open ulcers, calluses
- REFER to higher level of care if presence or progression of any of the above
- High risk:
 - Urea levels for protein: REFER to higher level of care if proteinuria is present
 - Fasting lipid panel: Refer annually
 - Measure HbA1c at every follow-up visit, if possible, otherwise use Hb for monitoring
 - Check visual acuity: Refer every two years, or as per ophthalmologist recommendation
 - Project motor diagnosed with GDM: REFER to specialist

Advice for lifestyle modification

MANAGEMENT OF ACUTE COMPLICATIONS

- At least 1 serving of agricultural or fish oil, walnuts, soybean
- At least 150 min/week of moderate-intensity aerobic physical activity
- Limit meat intake to no more than 70g per day
- Limit alcohol intake to no more than 2 standard drinks per week
- Limit added sugar to less than 10% of total energy
- Limit sodium intake to less than 5g per day
- Limit added salt to less than 5g per day
- Limit added fat to less than 30% of total energy
- Limit added sugar to less than 10% of total energy
- Limit added salt to less than 5g per day
- Limit added fat to less than 30% of total energy

Bangladesh Hypertension Management Protocol for Primary Health Care Settings*

Measure blood pressure of all adults > 18 years**

Start amlodipine 5 mg once daily

Step 1: Review in 1 month: If goal not achieved** Add Lisinopril 10 mg once daily

Step 2: Review in 1 month: If goal not achieved** Add Hydrochlorothiazide 12.5 mg once daily

Step 3: Review in 1 month: If goal not achieved** Refer to a specialist

Screening for chronic complications

- All diabetic, visit and regularly
- Measure blood pressure, review medications as per hypertension protocol
- Measure height and weight and calculate BMI
- Assess risk of liver, kidney, retinopathy, foot ulcers, sensory neuropathy by neurological presence of heeled or open ulcers, calluses
- REFER to higher level of care if presence or progression of any of the above
- High risk:
 - Urea levels for protein: REFER to higher level of care if proteinuria is present
 - Fasting lipid panel: Refer annually
 - Measure HbA1c at every follow-up visit, if possible, otherwise use Hb for monitoring
 - Check visual acuity: Refer every two years, or as per ophthalmologist recommendation
 - Project motor diagnosed with GDM: REFER to specialist

Consistent protocol



Medication supply



Community-based treatment



Patient-centered care



Information systems

Meeting of Steering Committee and Technical Committee of Hypertension Control program



Steering Committee Meeting, November 2020



Technical Committee Meeting, December 2022

Strengthening of NCD corners in UHC

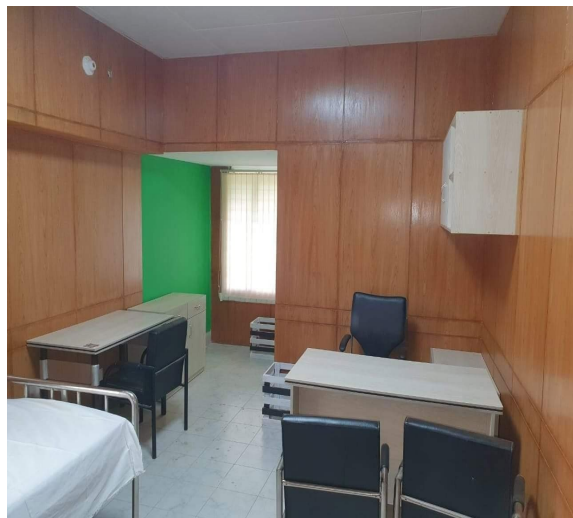
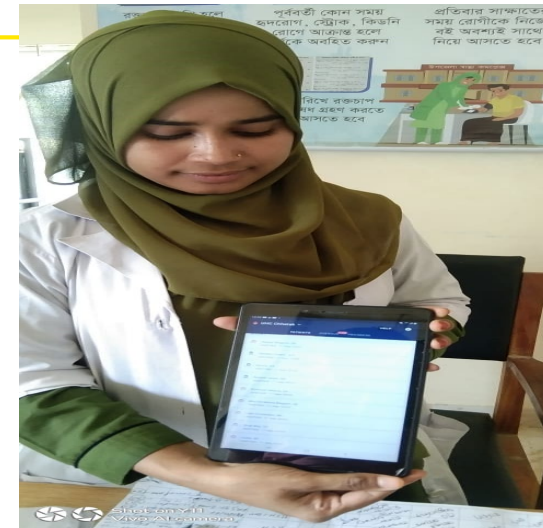
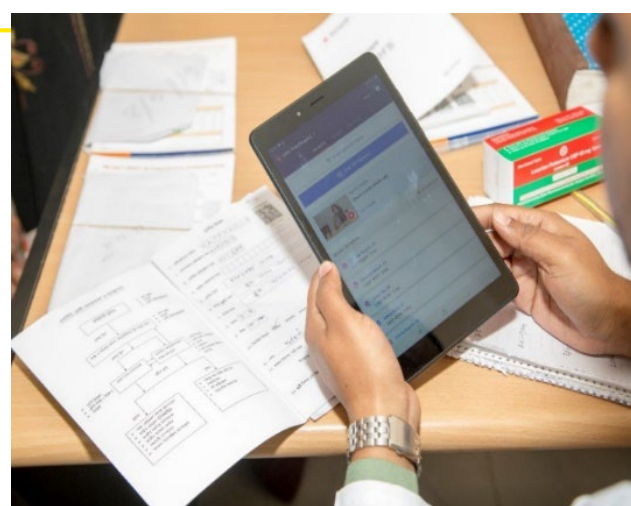
NCD corner of 344 UHCs were Renovated and Furnished with

- One arm-in BP machine
- Digital BP machines
- Digital Blood sugar machine
- One weighing scale
- Height scale & measuring tape
- Digital token system

All CCs in 182 upazilas(Digitilized) received one semi-automated digital BP machines and IEC materials



Activating Upazila Health Complexes: refurbishing of NCD corners, introduction of Simple app, NCD book by NCDC, DGHS



Trainings in different upazilas



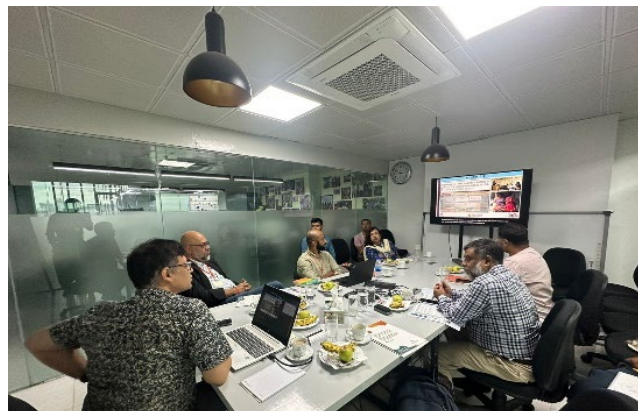
Refilling from Community Clinics

- ▶ The protocol drugs for the management of Hypertension and Type 2 Diabetes are refilled from Community clinics for the HTN and DM controlled patients.
- ▶ Piloted in 8 CCs in 4 Upazilas of Sylhet district (April 2022).
- ▶ Currently, 85 CCs in 4 Upazilas of Sylhet district providing medication refill (March 2023).
- ▶ Refilling from 261 CCs in Sylhet district started from October 2023.
- ▶ **CBHC buy Amlodipin and Metformin for refill from CC from this fiscal year**





Visit by Delegates



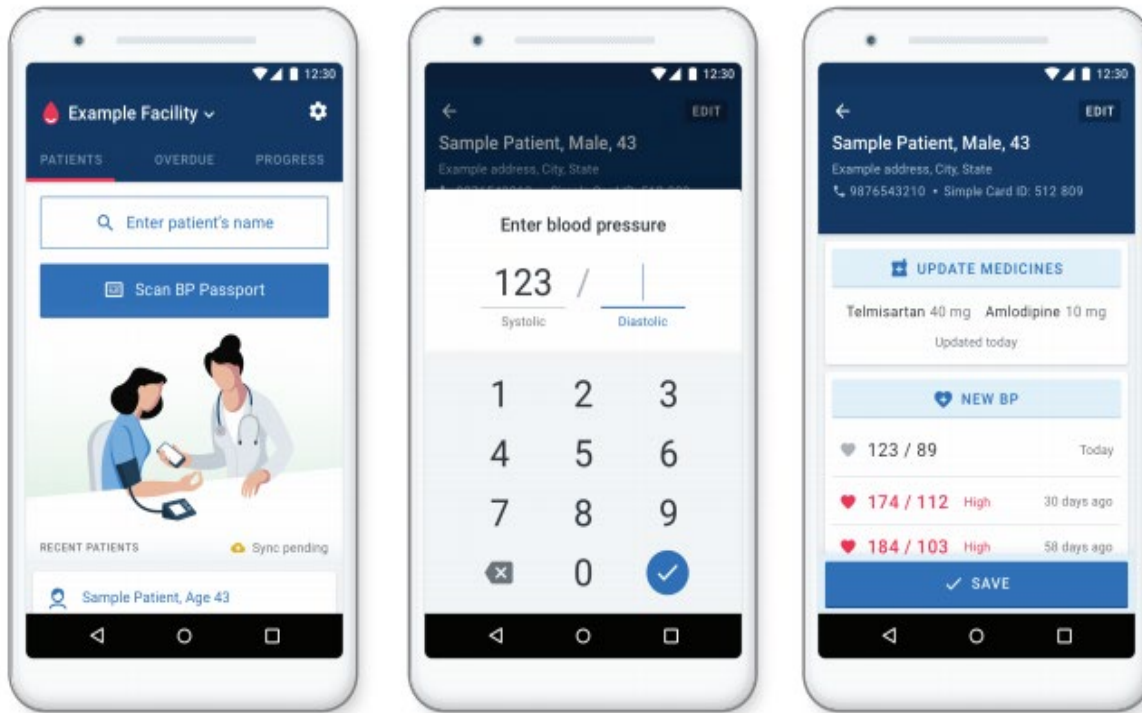
Visits by high level personnel at UHCs and Community clinics



SIMPLE App

Simple Android app for data entry

Healthcare workers enter BPs and BP medications at each patient's visit. Finding patients takes only 3-4 seconds with a scannable patient ID system.



- ▶ A digital Android application.
- ▶ Record blood pressure and blood sugar reading and medications for HTN and DM.
- ▶ Helps in monitoring follow-up visit and tracking BP and Sugar control.
- ▶ Simple dashboard helps managers to monitor overall progress at a glance.



Registered Patients And Follow-up Use Simple App



Scan BP Passport



Outcomes at program sites: HTN status from Simple app dashboard (upto 15 June 2024)

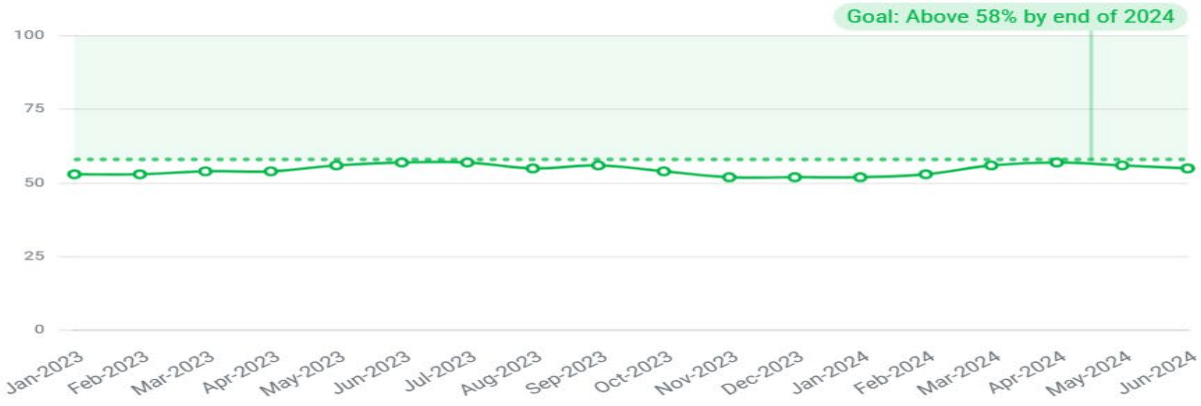
BP controlled ?

Include LTFU

Hypertension patients with BP <140/90 at their last visit in the last 3 months

55%

164,852 patients with controlled BP from 1-Apr-2024 to 30-Jun-2024 of 302,333 patients registered till 31-Mar-2024



Registrations ?

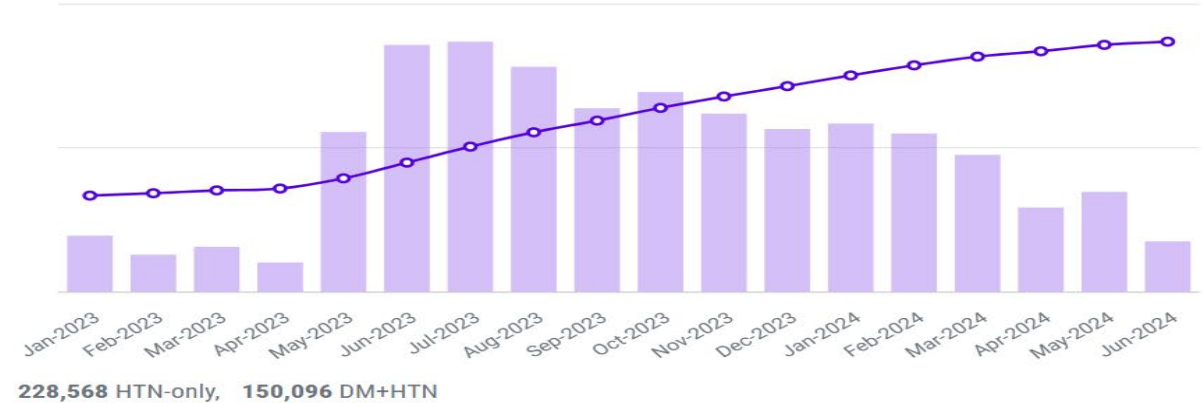
Monthly and total hypertension patients registered in BHCI

378,664

total registrations till 30-Jun-2024

4,861

new registrations in Jun-2024



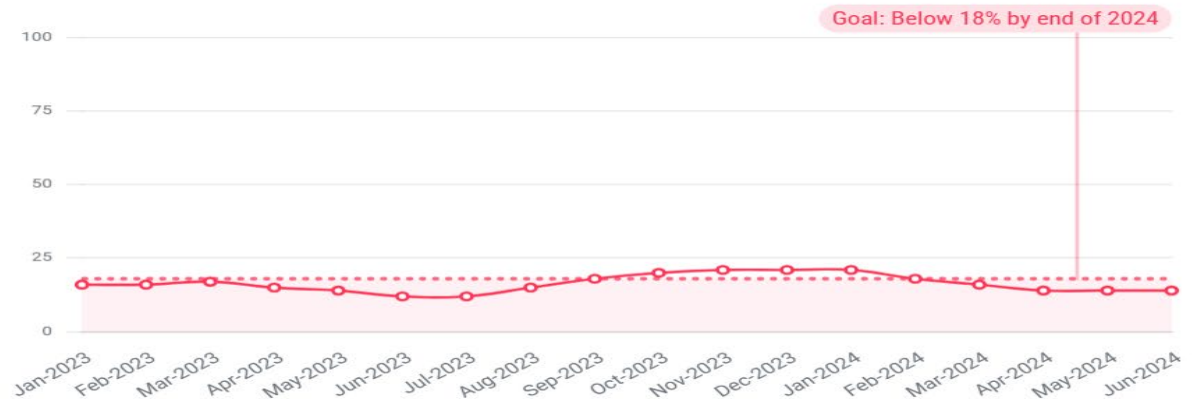
BP not controlled ?

Include LTFU

Hypertension patients with BP ≥140/90 at their last visit in the last 3 months

14%

42,731 patients with uncontrolled BP from 1-Apr-2024 to 30-Jun-2024 of 302,333 patients registered till 31-Mar-2024



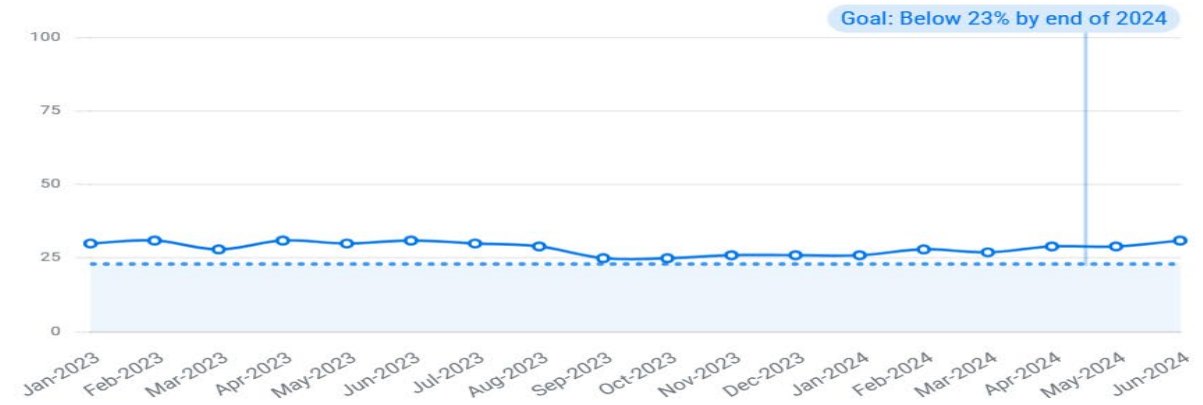
Missed visits ?

Include LTFU

Hypertension patients with no visit in the last 3 months

31%

93,318 patients with no visit from 1-Apr-2024 to 30-Jun-2024 of 302,333 patients registered till 31-Mar-2024



SIMPLE Dashboard (DM Status)

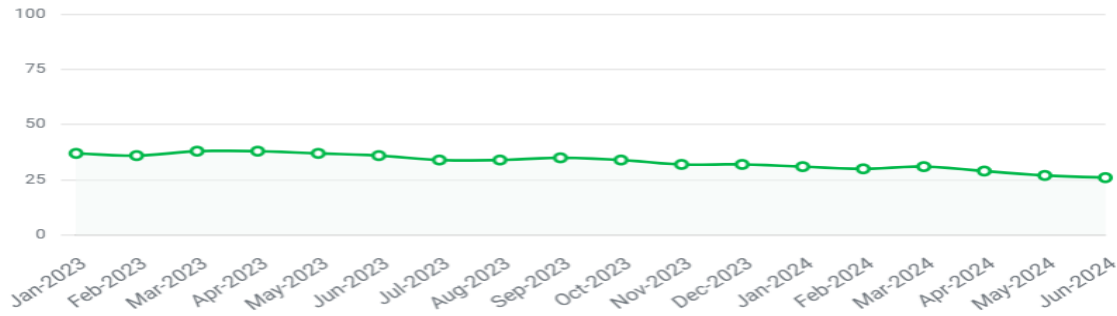
Blood sugar <200 ?

Include LTFU

Diabetes patients in BHCI with blood sugar <200 at their last visit in the last 3 months

26%

60,120 patients with a blood sugar <200 from 1-Apr-2024 to 30-Jun-2024 of 234,868 patients registered till 31-Mar-2024



0% RBS/PPBS, 0% Fasting, 0% HbA1c

Registrations and follow-ups ?

Monthly and total diabetes patient registrations and follow-up visits in BHCI

279,719

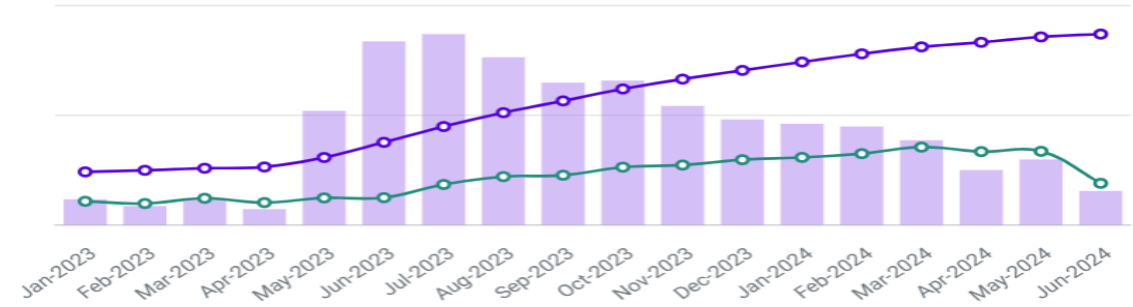
total registrations till 30-Jun-2024

4,127

new registrations in Jun-2024

61,050

follow-up patients in Jun-2024



129,623 DM-only, 150,096 DM+HTN

Blood sugar 200-299 or ≥300 ?

Include LTFU

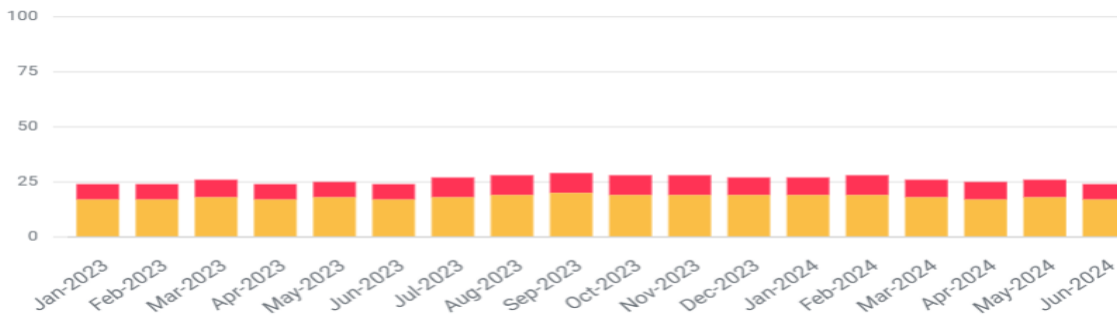
Diabetes patients in BHCI with blood sugar 200-299 or blood sugar ≥300 at their last visit in the last 3 months

7%

17,413 patients with a blood sugar ≥300 from 1-Apr-2024 to 30-Jun-2024 of 234,868 patients registered till 31-Mar-2024

17%

40,405 patients with a blood sugar 200-299 from 1-Apr-2024 to 30-Jun-2024 of 234,868 patients registered till 31-Mar-2024



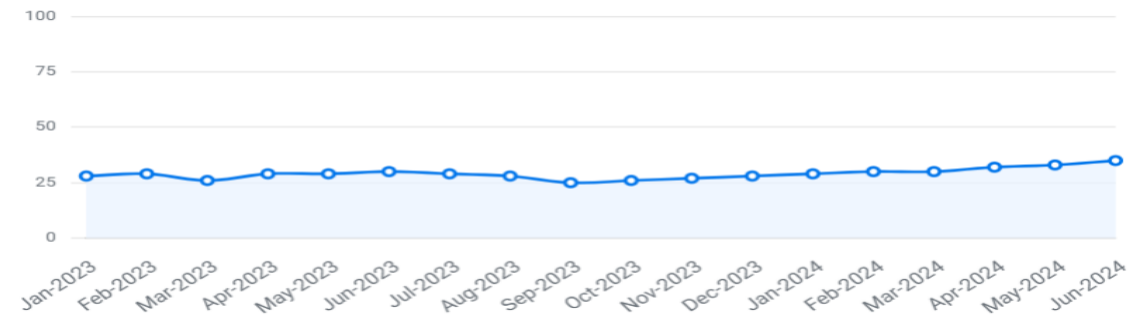
Missed visits ?

Include LTFU

Diabetes patients in BHCI with no visit in the last 3 months

35%

82,836 patients with no visit from 1-Apr-2024 to 30-Jun-2024 of 234,868 patients registered till 31-Mar-2024



Multisectoral Action Plan for Prevention & Control of Non-Communicable Diseases (2018-2025)



Bangladesh

The action plan will be implemented in two stages. The first stage will be implemented through a three-year operational plan from July 2018 through to June 2021, following which the next operational plan will be developed for 2025 targets. The second stage of the action plan will be implemented from July 2021 through to June 2025.

Some Key NCD Targets

Area	Baseline	2025 Targets
Overall pre-mature mortality from cardiovascular diseases, cancers, diabetes or chronic respiratory diseases	To be determined	25% relative reduction
Reduction in the harmful use of alcohol	STEPs 2010	10% relative reduction
Reduction in prevalence of current tobacco use in persons aged over 15 years	STEPs 2010	30% relative reduction
Reduction in prevalence of insufficient physical activity	STEPs 2010	10% relative reduction
Relative reduction in prevalence of raised blood pressure	STEPs 2010	25% relative reduction
Halt rise in obesity and diabetes	STEPs 2010	0
Reduction in mean population intake of salt/sodium	To be determined	30% relative reduction
Improve the availability of affordable basic technologies and essential medicines, including generics, required to treat major NCDs in both public and private facilities		80%

Visions



The vision of the multisectoral NCD action plan is to contribute towards **making Bangladesh free of the avoidable burden of NCD deaths and disability**.

Goal



The goal of the multisectoral NCD action plan is to **reduce preventable morbidity, avoidable disability and premature mortality due to NCDs** through multisectoral collaboration and coordination and "health in all policy" approach.

Focus



The key focus of the action plan is addressing conventional NCDs that include four diseases - **cardiovascular diseases, cancers, chronic respiratory diseases and diabetes**.

Source: MULTISECTORAL ACTION PLAN FOR PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES 2018-2025

Baseline and Target based NCD status in Bangladesh

Target	Baseline status (2010)	2025 target calculation	2025 target	2018 status	2022 status
Overall premature mortality from cardiovascular diseases, cancers, diabetes or chronic respiratory diseases	22%#	25% relative reduction	16.5%	18.9%##	19%
Reduction in the harmful use of alcohol	0.9%*	10% relative reduction	0.8%	1.5%**	1.5%***
Reduction in prevalence of current tobacco use in persons aged over 15 years	51%*	30% relative reduction	36%	42.8%**	44.8%***
Reduction in prevalence of insufficient physical activity	27%*	10% relative reduction	24%	12.3%**	19.5%***
Reduction in mean population intake of salt/sodium	15.3 g*	30% relative reduction	10.7g	9.5 g**	9.5%***
Relative reduction in prevalence of raised blood pressure	17.9%*	25% relative reduction	13.4%	21.5%**	23.9%***
Halt rise in obesity and diabetes	O=5.6%* D=11%^	0% relative reduction	O=5.6% D=11%	O=5.4%** D=13.8%**	O=5.2%*** D- 27%
Reduction in the proportion of households using solid fuels (wood, crop residue, dried dung, coal and charcoal) as the primary source of cooking	78%#	50% relative reduction	39%	77%##	
Increase the number of eligible people receiving drug therapy and counseling (including glycaemic control) to prevent heart attacks and strokes	42%^	50%	50%	42%^^^	
Improve the availability of affordable basic technologies and essential medicines, including generics, required to treat major NCDs in both public and private facilities	16%\$	80%	80%	42%\$\$	

Multisectoral Action Plan for Prevention & Control of Non-Communicable Diseases (2018-2025)



Bangladesh

Action Area 1: Advocacy, leadership and partnerships

- Advocate for **innovative financing mechanisms** in NCD prevention, particularly ear marking funds from health development surcharge on tobacco.
- **Raise public and political awareness** about NCDs and their risk factors through social marketing, mass media and responsible media reporting.
- Set up **effective high-level national multisectoral coordination mechanisms** for NCDs and report progress.
- Catalyze a systematic society-wide national response in NCD control by **addressing the underlying social, environmental and economic determinants of health** by engaging a broad range of actors.
- **Strengthen the Non-Communicable Disease Centre (NCDC) unit of the DGHS**, as a national unit on NCDs to be a full-time secretariat and carry out **needs assessment, strategic planning, policy development, multisectoral coordination, programme implementation and evaluation**.

Action Area 2: Health promotion and risk reduction

- Full implementation of **tobacco control laws**
- **Restrictions on availability of retailed alcohol**, with comprehensive restrictions and **bans on alcohol advertising and promotion endorsement** through the implementation of alcohol laws or adoption of the Global Strategy to Reduce the Harmful Use of Alcohol
- **Replacement of trans-fats with unsaturated fats**
- **Mass media campaigns on salt intake reduction** and reduced salt content in prepackaged or processed foods
- Place a **higher tax on sugar-sweetened beverages**
- Encouraging **adequate servings of fruits and vegetables**
- Providing a **network of free public places for walking and bicycling**
- Adopt and advocate the **national guideline on physical activity for health**
- Conduct **advocacy and training workshops among teachers** to promote healthy behaviours in schools and workplaces

Source: MULTISECTORAL ACTION PLAN FOR PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES 2018-2025

Multisectoral Action Plan for Prevention & Control of Non-Communicable Diseases (2018-2025)



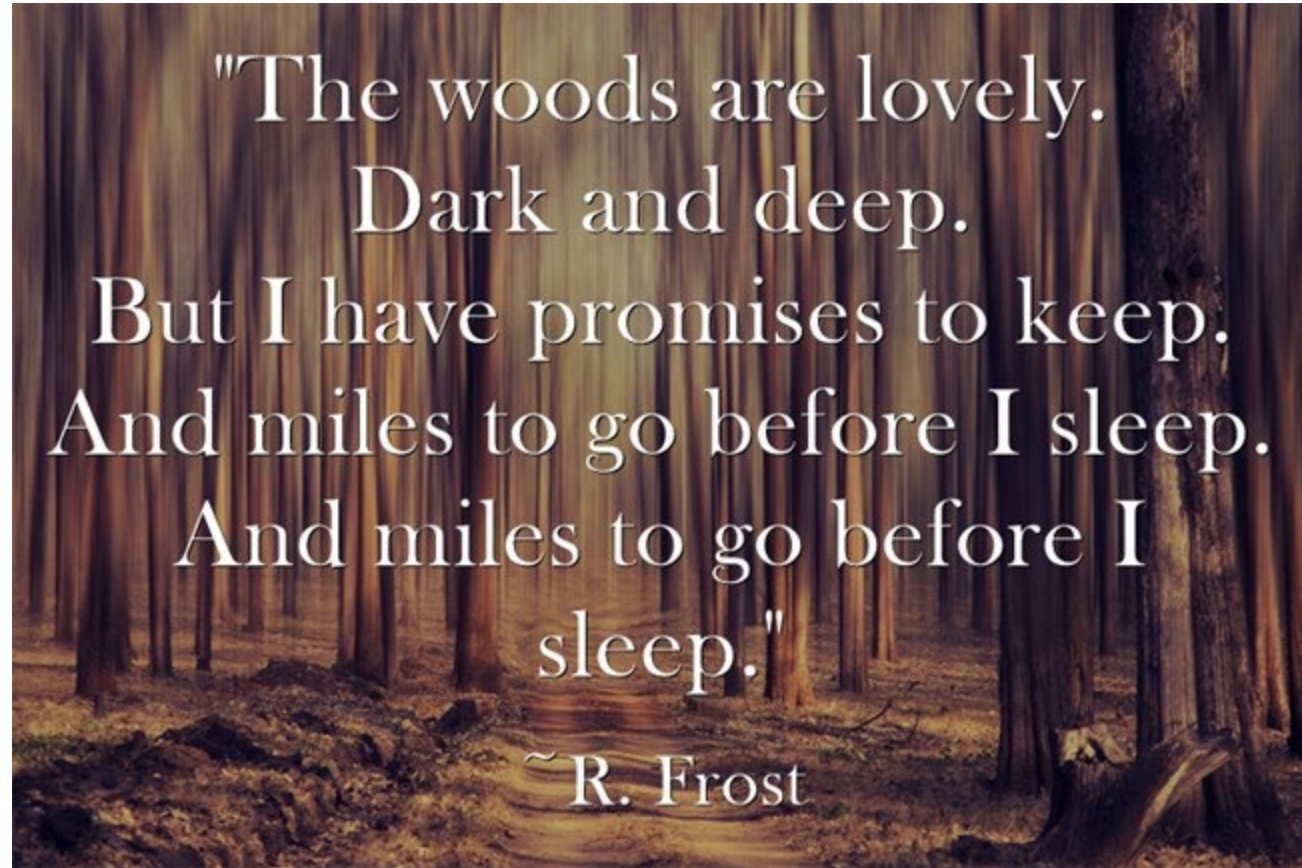
Bangladesh

Action Area 3: Health systems strengthening

- **Adapt the WHO PEN disease interventions** by developing guidelines, protocols and tools to support implementation of the essential health services package in primary healthcare facilities.
- **Review essential drug list and other supplies** for treatment of hypertension, diabetes, cardiovascular diseases, chronic obstructive pulmonary disease and revise the essential drug list.
- **Make basic NCD drugs available at the primary health care level.**
- **Integrate healthy lifestyle education** (physical activity, healthy diet, reduction of salt, tobacco and alcohol) in all health facilities including MCH and family planning services.
- **Incorporate NCDs curriculum** with focus on primary care in pre-service and in-service training for health professionals.
- **Study sustainable health financing options** to cover NCD services within the essential health services package to protect poor from financial risks

Action Area 4: Surveillance, monitoring evaluation, research

- **Conduct surveys such as NCD STEPs, GATS and GYTS at regular intervals.**
- **Strengthen national cancer registration** through hospital- and population-based cancer registries.
- Document annual consolidated **NCD implementation reports of multi-stakeholders.**
- Support **NCD research alliance** with academia, stakeholders, WHO and the Government, and improve the use of NCD surveillance and research data.
- **Review implementation rate of the current NCD operational framework**, and evaluate compliance with tobacco laws, food safety regulations/policies and healthy settings programmes.
- Integrate the **on line reporting of NCDs at the district and upazila levels with DHIS2** (District Health Information System) of DGHS.
- Conduct **secondary analyses of the STEPS survey data.**
- Strengthen the **civil registration and vital statistics system.**



"The woods are lovely.
Dark and deep.
But I have promises to keep.
And miles to go before I sleep.
And miles to go before I
sleep."
~ R. Frost