WHO NCD Accountability Framework, including Global Monitoring Framework for NCD prevention and control (2021 update) in alignment with the extension of the NCD Global Action Plan to 2030

This paper presents the scope and baselines of the nine NCD targets and additional considerations in monitoring the implementation of NCD GAP to 2030. It also outlines where specific targets have been updated through newer mandates (NCD mortality and physical activity).

What is the Global Monitoring Framework (GMF) and the Global NCD Targets?

In May 2013 the 66th World Health Assembly adopted the comprehensive Global Monitoring Framework (GMF) for the prevention and control of noncommunicable diseases[1]. The GMF outlined a set of targets and indicators for global monitoring of progress across regions and country settings. The GMF allows monitoring of trends and assessment of progress made in the implementation of national strategies and plans on noncommunicable diseases.

Member States agreed in 2013 on 25 indicators across three areas which focus on the key outcomes, risk factor exposures and national health systems response needed to prevent and control NCDs. Nine areas were selected from the 25 indicators in the GMF to be the 9 NCD voluntary targets : ***one mortality target*** (previously agreed at the WHA in May 2012); ***six risk factor targets (harmful use of alcohol, physical inactivity, dietary sodium intake, tobacco use, raised blood pressure, and diabetes and obesity),*** and ***two national health systems targets (drug therapy to prevent heart attacks and strokes, and essential NCD medicines and technologies to treat major NCDs).***[2] The global NCD targets were intended to focus global attention on NCDs and would represent a major contribution to NCD prevention and control. In calculating these targets, the historical performance of the top ranked 10th percentile of countries was assessed to help set the level of achievement considered possible. The targets were seen as ambitious, but attainable, and when achieved will represent major progress in NCD risk factors reductions and control. Targets were set for 2025, with a baseline of 2010.

UN SDG target on premature mortality from NCDs

In September 2015 world leaders adopted a set of 17 Sustainable Development Goals (SDGs), with associated targets, including one for NCDs, SDG 3.4.1[3]. SDG 3.4.1 is defined as: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being. This target of a 33.3% relative reduction in the probability of dying from the four main NCDs was aligned to the NCD mortality target within the GMF and is measured against 2015 as the common baseline set for all SDGs.[4]

Target on physical activity

In May 2018 the 71st World Health Assembly adopted the Global Action Plan on Physical Activity 2018 – 2030 (GAAPA), which included a target of "a 15% relative reduction in the global prevalence of physical inactivity in adults and in adolescents by 2030".[5] This target was aligned to the physical activity target within the GMF, and proposed an extension by five years to 2030.

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[1] WHA66/2013/REC/1

[2] https://www.who.int/publications/i/item/ncd-gmf-indicator-definitions-and-specifications

[3] https://www.un.org/sustainabledevelopment/development-agenda-retired/

[4] https://unstats.un.org/sdgs/metadata?Text=&Goal=3&Target=3.4

[5] WHA71/2018/REC/1

Extension of NCD Global Action Plan (NCD GAP) for the Prevention and Control 2013-2020 to 2030 by the WHA and the implementation roadmap 2023-2030

The NCD Global Action Plan (NCD GAP) was extended to 2030 by the 72nd World Health Assembly in May 2019.[6] In 2021 the 74th WHA requested WHO to develop an implementation roadmap to support the implementation of the NCD GAP in countries based on the NCD GAP evaluation report and the relatively low progress in the achievement of the nine NCD voluntary global targets within the GMF[7].

Monitoring of progress of the WHO NCD nine voluntary global targets

The mid-term evaluation of the NCD GAP made a specific recommendation on objective 6 of the NCD GAP on monitoring, requesting that the "WHO Secretariat to brief Member States on what monitoring and reporting implications there are of extending the NCD-GAP to 2030, including what will be reported in 2025 and what in 2030". Based on this recommendation, the discussion paper on the development of an NCD roadmap had proposed the possibility of extending the global NCD targets to 2030. However, following feedback from expert consultations and other inputs, and given the weak performance in reaching these global targets to date, as well as consideration of the impact of COVID on NCD prevention and control, the monitoring of the extended NCD GAP to 2030 will continue to be measured against the existing NCD nine global targets (baseline 2010), adapted to reflect the UNGA and WHA updated and extended targets for NCD mortality (SDG 3.4.1, baseline 2015) and physical activity (WHA 71, baseline 2010). It is also noted that the target on reducing harmful use of alcohol is currently under revision for consideration by the WHO Executive Board in January 2022.

All targets continue to be measured against the agreed 2010 baseline, except the mortality target as per SDG baseline of 2015. All indicators remain consistent with the exception of the indicator for the target on prevention of heart attack and stroke, which is updated to reflect new CVD risk protection charts which were developed more recently. See: WHO Hearts Technical Package, Risk-based CVD management module: https://apps.who.int/iris/bitstream/handle/10665/333221/9789240001367-eng.pdf.

As part of the implementation of the roadmap, and in line with the UNHLM in 2025, a review of the progress against the targets will be undertaken in 2025 and further modifications will be considered in consultation with Member States and Non-State Actors.

Methodology to monitor progress against each NCD target

WHO will report to WHO Executive Board, the World Health Assembly and the United Nations General Assembly on achievement of the targets by 2025 and 2030 as mandated by the Member States. The methodology for monitoring the progress against each target is based on and aligned with the methods used for the projections of the WHO Global Program of Work (GPW13) indicators[8].

For this exercise, eight models were considered: Random Walk with trend (RW2), Autoregressive (AR1), Exponential smoothing, Holt's linear trend, Holt's linear trend (damped), Flat extrapolation, Linear extrapolation and Annual average rate change extrapolation. As described in further detail in the GPW13 methodology document, models were tested using existing data, with part of these serving as test data. To determine which model performed best, the following statistical metrics were used: RMSE (root mean squared error), MAE (mean absolute error), MdAE (median absolute error), MASE (median absolute scaled error) and CBA (confidence bound accuracy: percentage of test points that lie within the predicted

[6] WHA72/2019/REC/1

[7] https://apps.who.int/gb/ebwha/pdf_files/WHA74/A74(10)-en.pdf

[8] WHO Technical Note: Baselines and Projections of GPW13 indicators (in preparation).

confidence intervals). Using all of these metrics, the best model was selected independently for each indicator and then used to track data to 2025 or 2030 in order to estimate the number of countries who are likely to be on track to hit the target by 2025 or 2030 based on historical levels of progress.

Updates for three of the Nine NCD voluntary global targets by WHA/UNGA decisions

Domain	Outcome	Target 2025	Baseline	Indicator	Updated Status
Mortality	**Premature mortality from noncommunicable disease**	A 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases	2015	Unconditional probability of dying between ages of 30 and 70 from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases	Target extended to **a one third relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases**. This target is adapted as per the SDG target on NCDs and with 2015 as the baseline and an extrapolation of the 25% relative reduction to 2030 making it 33.3%.
Behavioural risk factors	**Physical inactivity**	A 10% relative reduction in prevalence of insufficient physical activity	2010	Age-standardized prevalence of insufficiently physically active persons aged 18+ years (defined as less than 150 minutes of moderate-intensity activity per week, or equivalent)	Target extended to a **15% relative reduction in prevalence of insufficient physical activity** by 2030 as part of the Global Action Plan on Physical Activity adopted by MS at WHA May 2018
National systems response	**Drug therapy to prevent heart attacks and strokes**	At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes	2010	Proportion of eligible persons (defined as aged 40 years and older with a 10-year cardiovascular risk ≥30%, including those with existing cardiovascular disease) receiving drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes	Target unchanged. New indicator is updated to reflect new CVD risk projection charts: **Proportion of eligible persons (defined as aged 40 years and older with a 10-year cardiovascular risk ≥20%, including those with existing cardiovascular disease) receiving drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes**

All other targets remain unchanged, for achievement by 2025 against a baseline of 2010.

Domain	Outcome	Target 2025	Baseline	Indicator
Behavioural risk factors	Harmful use of alcohol	At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context	2010	Total (recorded and unrecorded) alcohol per capita (aged 15+ years old) consumption within a calendar year in litres of pure alcohol, as appropriate, within the national context
	Salt/sodium intake	A 30% relative reduction in mean population intake of salt/sodium	2010	Age-standardized mean population intake of salt (sodium chloride) per day in grams in persons aged 18+ years
	Tobacco use	A 30% relative reduction in prevalence of current tobacco use	2010	Age-standardized prevalence of current tobacco use among persons aged 18+ years

Biological risk factors	Raised blood pressure	A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances	2010	Age-standardized prevalence of raised blood pressure among persons aged 18+ years (defined as systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg) and mean systolic blood pressure
	Diabetes and obesity	Halt the rise in diabetes & obesity	2010	Age-standardized prevalence of raised blood glucose/diabetes among persons aged 18+ years (defined as fasting plasma glucose concentration ≥ 7.0 mmol/l (126 mg/dl) or on medication for raised blood glucose) Age-standardized prevalence of overweight and obesity in persons aged 18+ years (defined as body mass index ≥ 25 kg/m² for overweight and body mass index ≥ 30 kg/m² for obesity)
National systems response	Essential NCD medicines and basic technologies to treat major noncommunicable diseases	An 80% availability of the affordable basic technologies and essential medicines, including generics required to treat major NCDs in both public and private facilities	2010	Availability and affordability of quality, safe and efficacious essential noncommunicable disease medicines, including generics, and basic technologies in both public and private facilities

Other agreed monitoring components:

Nine Process Monitoring Indicators

As part of the overall accountability framework for NCDs, in May 2014 the WHA adopted a set of nine process indicators to inform reporting on progress made in NCD GAP implementation[9]. These process monitoring indicators cover the six objectives of the NCD GAP and were considered feasible for use in all countries and complementary and consistent with the 25 outcome indicators in the GMF.

The nine Process Monitoring Indicators will remain as part of the accountability architecture for the extended NCD GAP. These are:

1. Number of countries with at least one operational multisectoral national policy, strategy or action plan that integrates several noncommunicable diseases and shared risk factors in conformity with the global/regional noncommunicable disease action plans
2. Number of countries that have operational noncommunicable disease unit(s)/branch(es)/department(s) within the Ministry of Health, or equivalent
3. Number of countries with an operational policy, strategy or action plan, to reduce the harmful use of alcohol, as appropriate, within the national context
4. Number of countries with an operational policy, strategy or action plan to reduce physical inactivity and/or promote physical activity
5. Number of countries with an operational policy, strategy or action plan, in line with the WHO Framework Convention on Tobacco Control, to reduce the burden of tobacco use (AGREED)
6. Number of countries with an operational policy, strategy or action plan to reduce unhealthy diet and/or promote healthy diets

[9]WHA67/2014/REC/1

7. Number of countries that have evidence-based national guidelines/protocols/standards for the management of major NCDs through a primary care approach, recognized/approved by government or competent authorities
8. Number of countries that have an operational national policy and plan on NCD-related research including community-based research and evaluation of the impact of interventions and policies
9. Number of countries with noncommunicable disease surveillance and monitoring systems in place to enable reporting against the nine voluntary global NCD targets

10 Progress Monitoring indicators

In May 2015, WHO published a Technical Note outlining a further component of the **NCD accountability framework**, detailing a set of **ten NCD progress monitoring indicators** to be used to report on progress achieved in the implementation of national commitments arising from the UN High Level Meetings on NCDs held in 2011 and 2014[10]. These were updated in September 2017 to ensure consistency with the revised set of WHO 'best-buys' and other recommended interventions for the prevention and control of noncommunicable diseases which were endorsed by the World Health Assembly in May 2017.[11] The ten progress monitoring indicators intended to show the progress achieved in countries are as follows:

1) Member State has set time-bound national targets based on WHO guidance
2) Member State has a functioning system for generating reliable cause-specific mortality data on a routine basis
3) Member State has a STEPS survey or a comprehensive health examination survey every 5 years
4) Member State has an operational multisectoral national strategy/action plan that integrates the NCDs and their shared risk factors
5) Member State has implemented the following five demand-reduction measures of the WHO FCTC at the highest level of achievement:
    a. Reduce affordability by increasing excise taxes and prices on tobacco products
    b. Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places and public transport
    c. Implement plain/standardized packaging and/or large graphic health warnings on all tobacco packages
    d. Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship
    e. Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke
6) Member State has implemented, as appropriate according to national circumstances, the following three measures to reduce the harmful use of alcohol as per the WHO Global Strategy to Reduce the Harmful Use of Alcohol:
    a. Enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale)
    b. Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)
    c. Increase excise taxes on alcoholic beverages
7) Member State has implemented the following four measures to reduce unhealthy diets:
    a. Adopt national policies to reduce population salt/sodium consumption

[10] http://www.who.int/nmh/events/2015/technical-note-en.pdf?ua=1

[11] https://www.who.int/publications/i/item/9789241513029

b. Adopt national policies that limit saturated fatty acids and virtually eliminate industrially produced trans fatty acids in the food supply

c. WHO set of recommendations on marketing of foods and non-alcoholic beverages to children

d. Legislation/regulations fully implementing the International Code of Marketing of Breast-milk Substitutes

8) Member State has implemented at least one recent national public awareness and motivational communication for physical activity, including mass media campaigns for physical activity behavioural change

9) Member State has evidence-based national guidelines/protocols/standards for the management of major NCDs through a primary care approach, recognized/approved by government or competent authorities

10) Member State has provision of drug therapy, including glycaemic control, and counselling for eligible persons at high risk to prevent heart attacks and strokes, with emphasis on the primary care level