Mid-Term Review (MTR) of the Health Sector Strategic Plan V (HSSP V)

Infectious and Non-Communicable Diseases Control Report

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STRATEGIC OUTCOME NON-COMMUNICABLE DISEASES

The strategic outcome NCD mainly intends to *"Reduce morbidity and mortality due to non-communicable diseases as a result of preventive measures addressing risk factors, early detection and treatment and rehabilitation of non-communicable conditions of public health importance. Increased attention due to increase in life expectancy, nutrition and changes in lifestyle*".

1. SYNTHESIS FROM DESK REVIEW AND IN-DEPTH INTERVIEWS

a) Non-communicable diseases priorities in the HSSP V

The Health Sector Strategic Plan is one of the important tools for the implementation of the National Health Policy 2007 (NHP 2007). The NHP 2007 has five policy statements on NCD; i) developing strategies and guidelines which will involve communities in controlling or fighting NCD; ii) use of multisectoral approach in the control of NCD including addressing causes of NCD and injuries or accidents; iii) the government in collaboration with the private sector, development partners, and NGOs will continue to review Acts, guidelines and procedures for the purpose of strengthening prevention and control of NCD and accidents; iv) coordinate and strengthen research activities on NCD and accidents/injuries; v) collaborate with various organization in strengthening transport system for the victims of accidents/injuries so as to prevent further complications resulting from accidents/injuries. From these five-policy direction, the HSSP V identified 13 priorities for NCD as follows:

1. Address the increasing trends of overweight and obesity among all age groups.
2. Strengthening the provision of curative, management and preventive services to reduce the burden of NCD
3. All health care facilities to be enabled to provide screening services for NCD and their co-morbidities.
4. Address co-morbidities between NCD and communicable diseases.
5. Strengthen research into prevention and control of non-communicable diseases and co-morbidities.
6. Improve monitoring of NCD through the HMIS.
7. Ensure availability and management of mental health services in the communities and health care facilities at all levels.
8. Address social determinants of health by promoting Health in All Policy agenda (HiAP).
9. Strengthening prevention, treatment, and rehabilitation services for victims of substance abuse and addiction.
10. Strengthening the delivery of primary eye health services at community and PHC level while sustaining the advancement in the secondary and tertiary eye health services.
11. Strengthen prevention of blindness among people living with diabetes.
12. Increase access to high quality oral health services and will focus on strengthening the delivery of preventive services through school-based oral health programmes and facility-level oral health education.

13. Strengthen oral health service provision at all levels of facilities to improve access and increase utilisation.

Gaps on the priorities for NCD

Non-Communicable Diseases are a group of diseases most of which are chronic and need massive resources to treat or manage. Fortunately, most NCD are preventable through different strategies such as behavioural change, nutritional interventions, active or change of lifestyle, health education, etc. However, the following has been observed:

- There is a long list of priorities most of which will not be addressed or achieve any notable progress by 2026.
- Most priorities have no indicators in the HSSP V making it difficult to monitor or evaluate performance.
- For a deserved attention the priorities should be based on a specific NCD e.g. Hypertension, Diabetes Mellitus, Cancer Mental Health, as the burden of each of these differs. This can be addressed when revising the NCD strategy which in principle is supposed to unpack the strategic outcome - NCD of the HSSP V

b) Non-communicable diseases in the other sectors policies

The NHP 2007 recognized NCD as a multisectoral public health problem. This is clearly stipulated in the policy statements for NCD, with emphasis on adopting a multisectoral approach is addressing the problem in the country. However, to achieve this, promotion of a sectoral wide approach (SWAp) under the umbrella of Health in All Policies (HiAP) should strengthened to reinforce responses from the other sectors. Five sectoral policies relevant in addressing NCD were reviewed to establish whether they accommodate and promote interventions for NCD. They include National Agriculture Policy 2013, National Road Safety Policy 2009, Food and Nutrition Policy 1992; National Education and Training Policy 2014, and the National Sports Development Policy 1995. To better understand whether NCD

i) A review of national policies

A review of the policies established the following:

The Food and Nutrition Policy 1992: Chapter Four of the policy identified health as one of the essential human services directly linked to food and nutrition. In other words, food and nutrition are among the determinants of health. Despite this policy recognition, the FNP 1992 addressed nutrition issues related to maternal health, child immunization and primary health care. It further stressed on disseminating health education related to prevention of communicable diseases and addressing social determinant of health. Given the age of the policy, it was unlikely that NCD could be covered by the policy developed at that time.

National Road Safety Policy 2009: The policy recognized the increasing problem of road accidents annually. It provides guidance on what should be done to reduce the burden of road accidents in the country. Section 5.4 of the policy recognizes the importance of multisectoral approach in addressing road accidents. The collaboration between Fire and Rescue Services, the Police, and the Ministry of Health in developing effective pre-hospital trauma care service, and rapid response to road traffic accidents is an example of the multisectoral approach in addressing NCD.

National Agriculture Policy 2013: A review of the National Agriculture Policy 2013 revealed that, most of the cross-cutting issues covered were those that affect productivity in the sector. For instance, HIV/AIDS, Malaria and waterborne diseases were found to have devastating impact on agriculture as they target the most economically active layers of the society. The NAP 2013 did not mention NCD, as during the development there wasn't enough data to suggest that NCD was equally a big threat to the sector's productivity.

Education and Training Policy 2014 (Revised version of 2023): The policy recognizes that both communicable and non-communicable diseases affect the performance and quality of education through absenteeism and death of both students and teachers. The policy statement on health stipulates "*The government will integrate subjects on preventions against communicable and non-communicable diseases at all levels of education and based on needs"*. This aims at strengthening provision of health education at all levels of education and training.

National Sports Development Policy 1995: Despite the mushrooming of jogging teams, marathons, increasing number of sports and the public pronouncements that sports contribute to the fight against NCD, the current policy has not addressed it as a public health problem and sports are the best platforms for promoting preventive intervention for NCD.

ii) The multisectoral approach in addressing NCD: Key informant's reflections

To establish how the health sector has been pushing the agenda of tackling NCD using a multisectoral approach, key informants from the Ministry of Health and WHO country office were consulted. The key findings include:

- There have been collaborative efforts between the Ministry of Health and WHO country office to advocate for NCD in all policies under multisectoral approach or Health in All Policies (HiAP) platform.
- A total of 12 policies have been reviewed and several were found to have health components, but not NCD.
- As part of the advocacy for NCD, in 2018 a higher-level engagement meeting involving Permanent Secretaries from all ministries was convened to deliberate on how other sectors apart from Health can contribute to the fight against NCD.
- There have been another higher-level meeting involving Directors of Policy and Planning in July 2022, which came up with action plan for NCD to be addressed across all sectors. Unfortunately, shortly after the meeting, changes and transfers of higher management officials followed, and this affected the implementation of resolutions for NCD.
- As one of strategies to enforce multisectoral collaboration in addressing NCD, there is a National NCD multi-sectoral steering committee (NMSC) with clear functions. This committee should be driving force towards achieving the goal.
- The multisectoral coordination unit at the Prime Minister's office has also been engaged to facilitate the integration of NCD in the multisectoral strategies of addressing public health problems. This can utilize the existing platforms such as those of HIV and Nutrition.

- A lot has been done including development documents for guiding the process, however, there remain some challenges which slows down the efforts to get NCD addressed under multisectoral approach

Gaps on policy alignment related to NCD

The health determinants for NCD reflects a need for multi-sectoral approach in devising preventive, curative and rehabilitative intervention strategies. A review of national policies coupled with the engagement with the MoH and WHO officials in the in-depth interviews revealed the following gaps;

1) Most policies were developed at the time NCD was not viewed as a public health concern, hence not considered in other sectors policy direction. However, this provides an opportunity for inclusion of NCD issues during the revisions of the policies.
2) Exclusion of NCD agenda in most of the policies implies low awareness on the burden of NCD and the implications in the social economic development agenda.
3) The SWAp seems to be inclined on public health problems which have stable funding from development partners, e.g HIV and Nutrition.
4) Between 2018 to date, staff's turnover across all sectors is massive, thus making the implementation of NCD in all policies a challenge.
5) Limited horizontal operation of the coordination desks at the PMO. There is a one health desk, emergency coordination unit etc. All these are multisectoral issues which need to harmonize their operations and be dealt under one umbrella of the Multisectoral Coordination unit or department.

Recommendations

- The ongoing efforts to foster multisectoral approach in dealing with NCD should be sustained and promoted. The national NCD multi-sectoral steering committee (NMSC) should lead these efforts to provision of directives and guidance to implementers.
- Adoption of the strategy used to integrate HIV, anticorruption and nutrition issues in all sectors strategic plans may be useful in getting NCD featuring in all policy documents.
- Regular engagements with the multisectoral committee or unit at the Prime Minister Office is encouraged to ensure the momentum of getting NCD addressed through multisectoral approach remain high.
- Engagements with development partners to support the advocacy for multisectorality approach on NCD should be strengthened.

c) Financing of the NCD Strategy

The cost of implementing NCD strategy within a five-year period was estimated to be TSh 7.3 trillion, with the fifth year alone (2025/2026) needing an investment of about 2 trillion Tanzanian shillings. The annual budgets for NCD are way far beyond the annual budget of the Ministry of Health, NCD inclusive. The comparison of the estimated annual budget for delivering NCD intervention versus the annual budget of the Ministry of Health is illustrated in Figure 1.

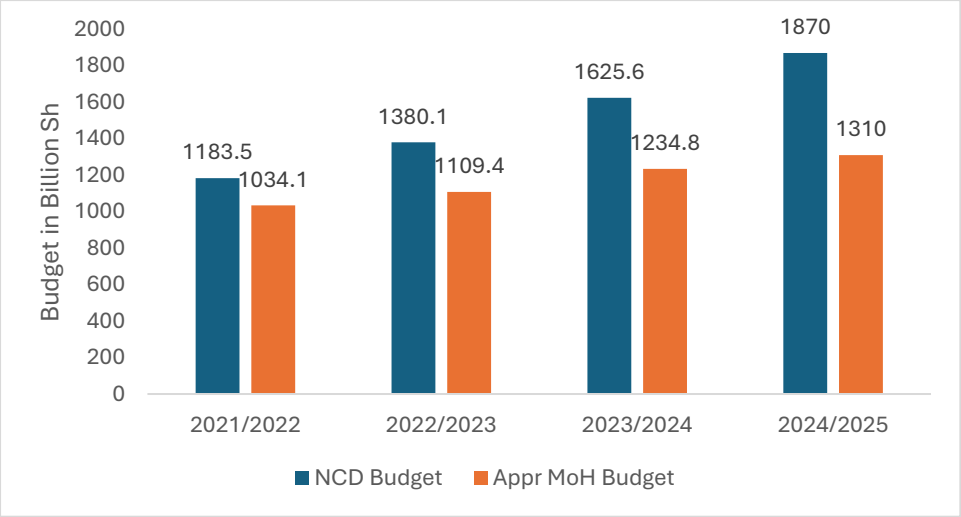

Figure 1: Comparison of the planned budgets for NCD versus approved MoH annual budget.

Gap:

- Limited financial resources to support the implementation of activities delivering 13 priorities for NCD articulated in the HSSP V
- The budget of implementing the NCD strategy does not reflect the fiscal reality of the country. Unlike communicable diseases Malaria, HIV and TB, NCD does not enjoy bilateral financial support.

Recommendations

- Innovative financing strategies to support the implementation of interventions for NCD are need.
- Such strategies may include or utilize multisectoral approach whereby resources from other sectors are leveraged to support the efforts to fight NCD.
- Strengthen advocacy for fiscal policy review to accommodate the financial needs for NCD interventions.

2. MORTALITY DUE TO NCD

a) Reduction in the overall premature mortality due to cardiovascular diseases, diabetes, cancer and CRD between age 30 and 70 years

The DHIS2 data revealed a mortality above the target of 10%. For three consecutive years 2021, 2022 and 2023 NCD accounted for >10% of all mortalities recorded at the PHC facilities (Figure XXX). In 2022, NCD accounted for 18.7% of all causes of mortality higher than the previous and subsequent years 2021 and 2023 respectively (Figure XXX).

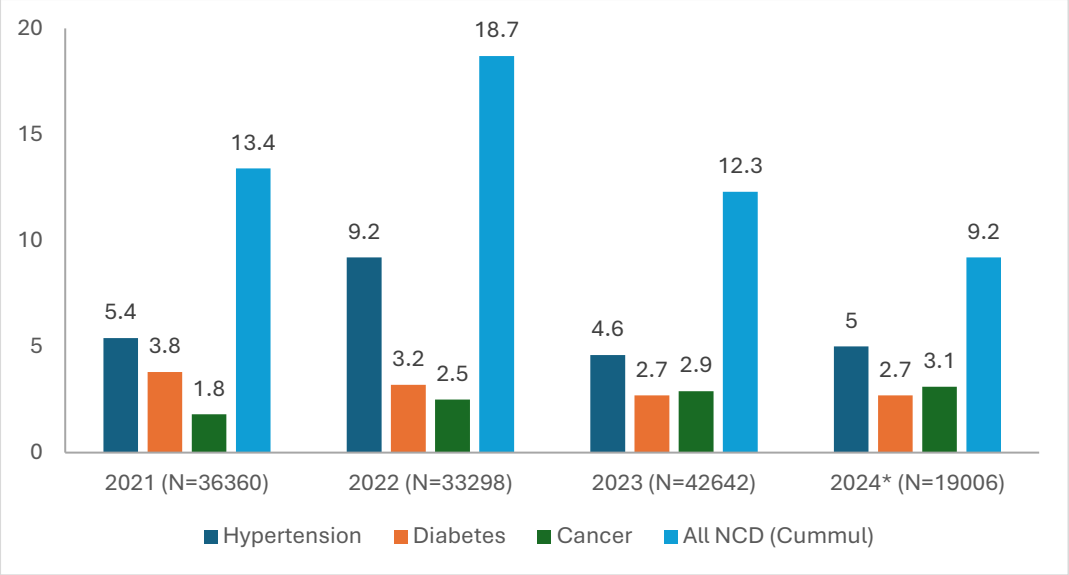

Figure XXX: Annual mortality due to NCD as recorded from the PHC (Source DHIS2)

Disaggregation of mortality data based on the type of NCD has revealed that hypertension leads followed by diabetes mellitus and cancer. In 2022, mortality due to hypertension reached 48.9% of all mortalities caused by NCD. This was followed by road accident 17.4% and diabetes mellitus 17.2%. On the other hand, mortality due to cancer showed an increasing trend with 13.3, 13.3, and 23.5% registered for the year 2021, 2022 and 2023 respectively. Additionally, within six months of 2024, cancer has claimed 23.6% of all mortalities due to NCD (Figure XXX).

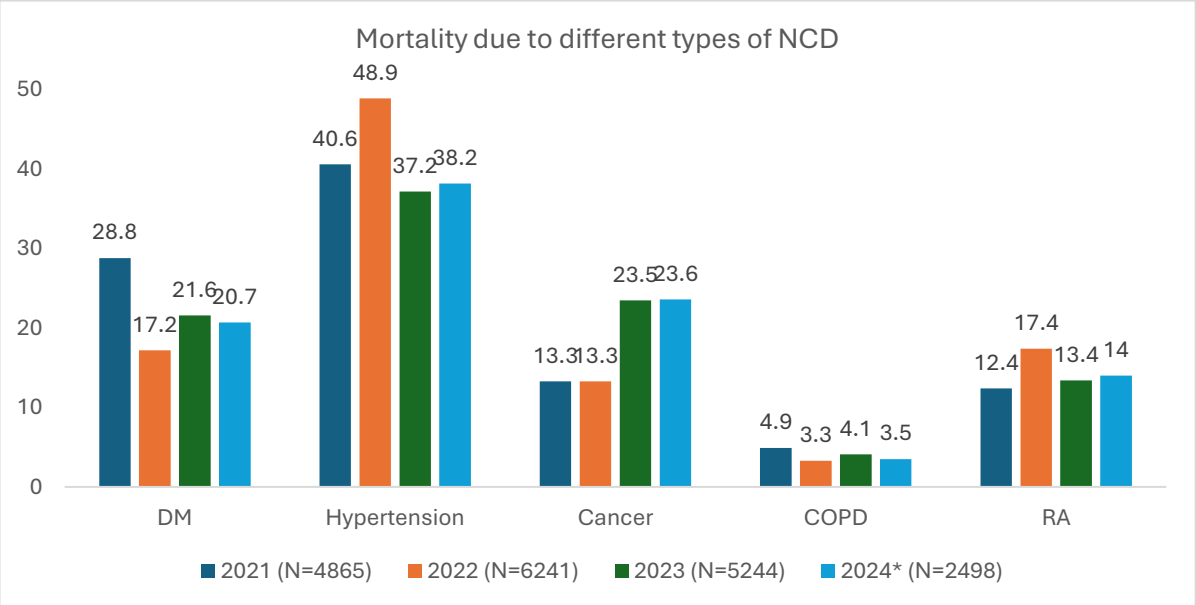

Figure XXX: Mortality due to different types of NCD (COPD = chronic obstructive pulmonary diseases; DM = Diabetes Mellitus; RA=Road Accidents).

Recommendations

- The mortality due to NCD over the past three years remains above 10%. Even though in 2022 it reached 18.7%, before a sharp drop to 12.3% in 2023. This is intriguing and require research to provide answers why there was a sharp rise in mortality due to NCD in 2022, and then a sharp drop in 2023.

- Hypertension is the leading cause of mortality among NCD patients. Going forward, research is needed to investigate factors or drivers for this trend. Research should further recommend the strategies to address this challenge.

3. SCREENING FOR CERVICAL CANCER

Proportion of women aged 30–50yo who were screened for cervical cancer in the last 3 years: Early detection of cervical cancer is important in ensuring treatment success. As part of the expansion of healthcare services, the ministry has built capacity for screening for cervical cancer from PHC to the tertiary level. Within five years of the HSSP V, the health sector target to >60% of the eligible women. This is up by 26% as the baseline in 2020 was 34%. Halfway to the implementation of HSSP, the trend show that the number of women screened for cervical cancer increased from 584,738 in 2021 to 672,697 in 2022 before decreasing to 602,334 in 2023. Even though the uptake seems to be increasing an irregular trend between 2021 to 2023 calls for a review of the promotion strategy to encourage many women to utilize the service.

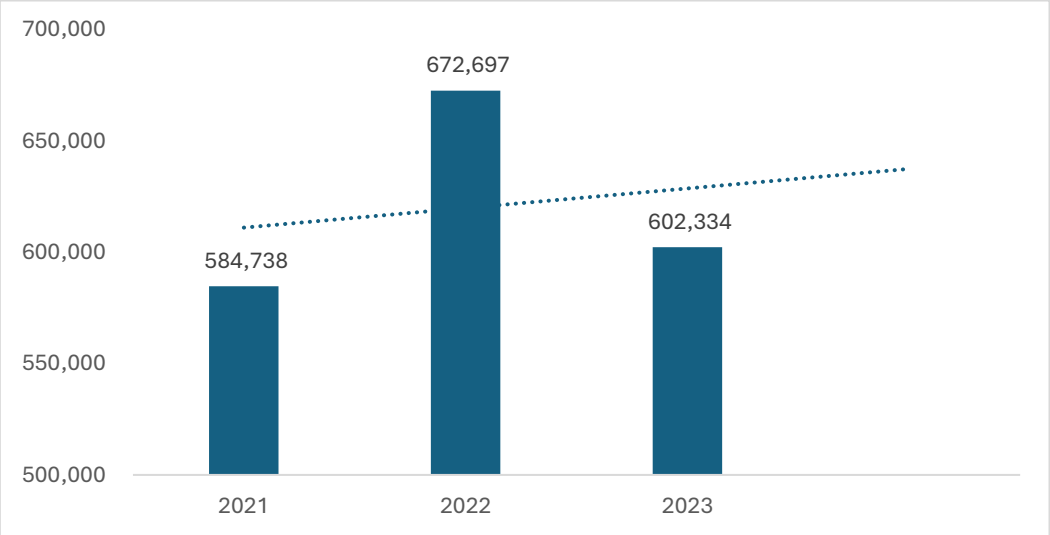

Figure XX: Number of women screened for cervical cancer from 2021 to 2022 (Source: DHIS2).

Recommendations

- The uptake of cervical cancer screening in the country has been increasing even though there was a decrease in 2023. Health promotion strategies should be strengthened to sustain the gains.
- The reasons for the rise and fall in the number of women seeking cervical cancer screening service should also be probed to inform further improvements in the remaining two years of the HSSP V.

MORBIDITY DUE TO NON-COMMUNICABLE DISEASES

The burden of morbidity due to NCD is increasing in an annual basis. The OPD data from PHC show that from 2021 the number of patients seeking care and treatment services increased from 3,858,402 to 4,343919 in 2023. This is an increase of 485,517 patients who sought treatment for NCD (Figure XXX).

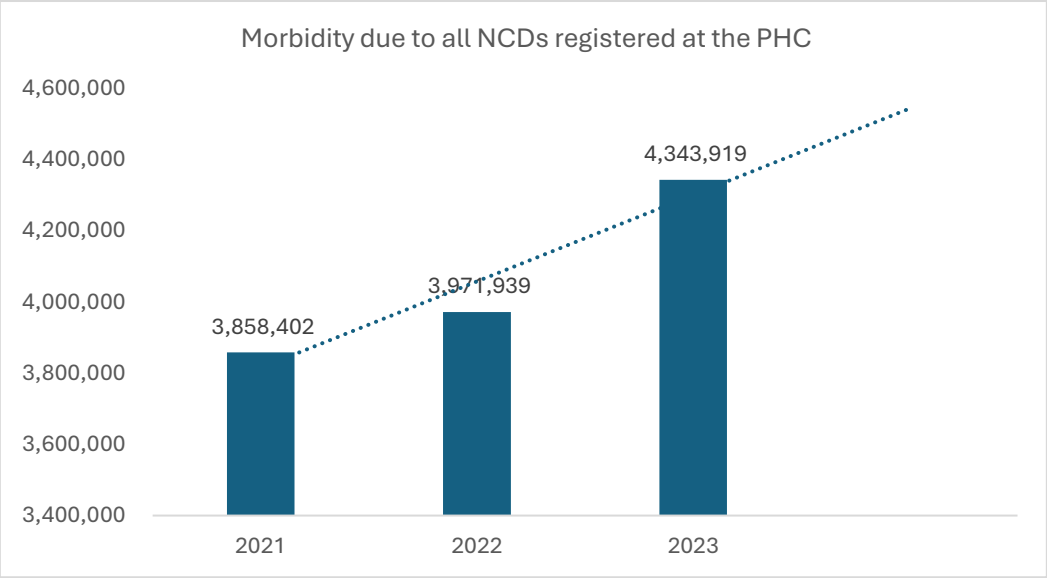

Figure XXX: Trend of NCD patients registered at the PHC facilities across the country (Source: DHIS2)

Disaggregation of data according to the type of NCD revealed hypertension to be the leading cause of morbidity followed by Diabetes mellitus, mental health, COPD, road accidents and cancer respectively (Figure XXX).

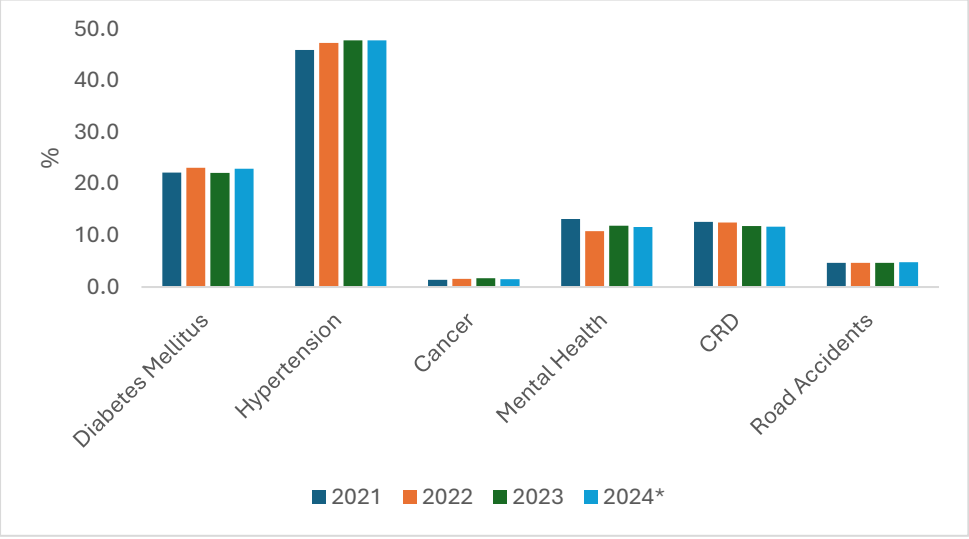

Figure XXX: Trend according to the type of NCD

Prevalence of raised blood pressure among persons aged ≥18 years

The prevalence of raised blood pressure among adult population was assessed using two approaches. i) using DHIS2 data to determine the trend of OPD patients who were diagnosed as hypertensive, ii) using STEPS 2023 results which provides the true status on the burden of hypertension in the country based on the population survey.

i) Trend of hypertension among patients registered at the PHC OPD

The government plans to reduce the burden of hypertension by 25% in 2025. Halfway into the implementation of HSSP V, the DHIS2 data has revealed an opposite trend. In 2021 hypertension accounted for 40.6% of all NCD patients visited the PHC facilities (Figure XXX). In 2022, the patients with hypertension registered at the PHC increased to 48.9% before dropping to 37.2% in 2023(Figure XXX).

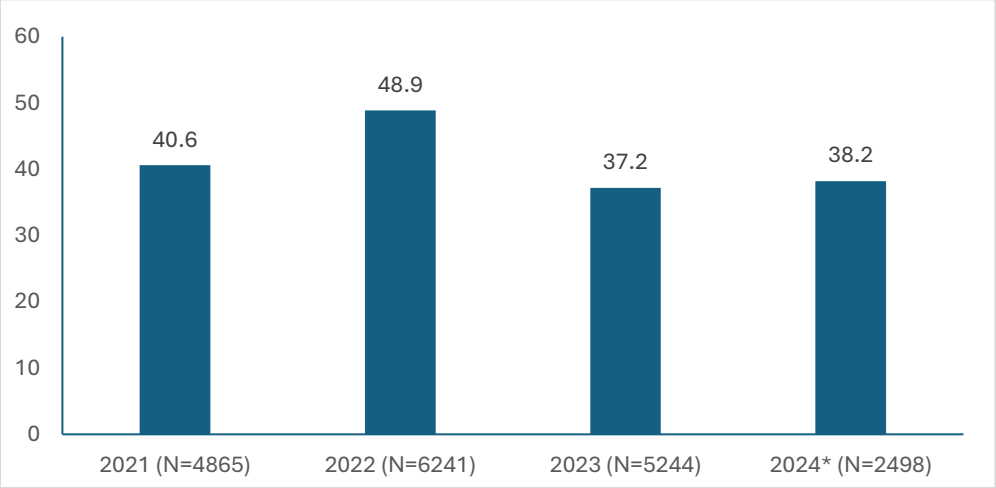

Figure XXX: Trend of OPD patients with hypertension registered at the PHC (Source: DHIS2).

ii) The burden of hypertension based (STEPS 2023)

STEPS survey conducted in 2023, has revealed the prevalence of raised blood pressure among persons aged >18 years old to be .....

Indicator	Baseline	Target	Current Status/Progress
Prevalence of raised blood pressure among persons aged ≥18 yo	26% (M: 25.4%, and F: 26.5%)	25% reduction	

Percentage of adults (15-59 yo) with hypertension who are on treatment (STEPS 2023; SARA 2023)

Indicator	Baseline	Target	Current Status/Progress
Adults 15-59 years with hypertension who are on treatment	7.3% (STEPS 2012) Treatment readiness for cardio-vascular 44% (SARA 2020)	>25%	Facilities readiness to treat CVD has dropped to 41% (SARA 2023).

Prevalence of raised plasma glucose among adults aged ≥18yo

The STEPS Survey of 2012 revealed a prevalence of 9.1% of diabetes among adults aged ≥18 years old. The government efforts are to have no increase in the prevalence of diabetes in the country by 2025. To determine progress, two options have been used: i) Use DHIS2 data to determine the trend of diabetes mellitus patients who visited the OPDs from 2021 to June 2024; ii) Use of STEPS Survey data to determine the real burden of diabetes mellitus in the country.

i) Trend of patients with raised plasma glucose registered at the PHC OPD

The proportion of diabetic patients registered at the PHC has been decreasing. By the end of 2023, 21.6% of the NCD patients who sought care at the PHC were diabetic. Even though there was decrease from 28.8% in 2021 to 17.2% in 2022, there was increase in 2023. In terms of trend, the proportion NCD patients with raised plasma glucose has been decreasing (Figure XXX).

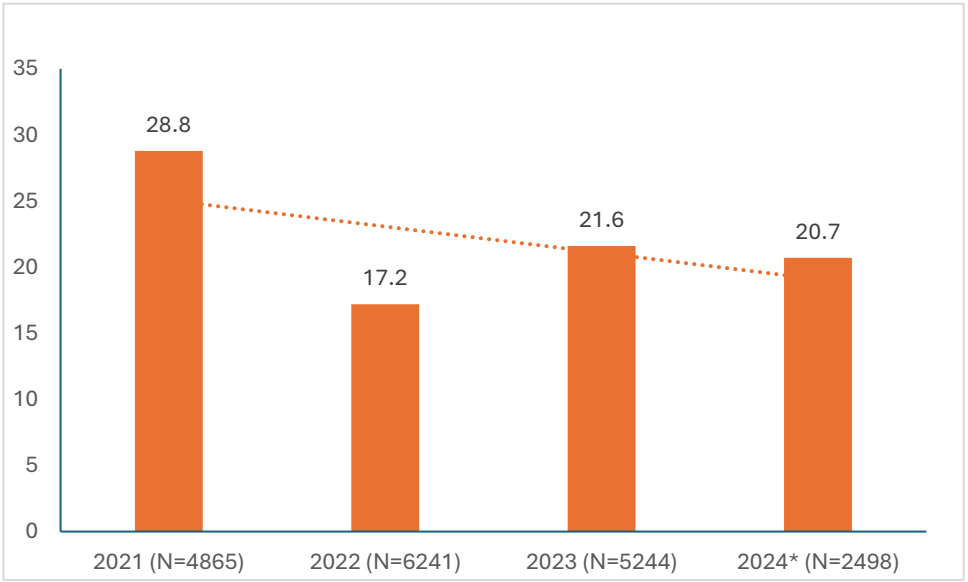

Figure XXX: Trend of diabetic patients registered at the PHC from 2021 to Mid 2024 (Source DHIS2).

ii) The burden of diabetes mellitus as revealed (STEPS 2023)

The STEPS 2023 survey has revealed the prevalence of raised blood glucose among adults aged ≥18 years old to be ..... higher above/below the baseline of 9.1%. This implies that .....

Indicator	Baseline	Target	Current Status/Progress
Prevalence of raised blood glucose among adults aged ≥18 yo	9.1% (STEPS 2012)	25% reduction	

i) Percentage of adults (15-59 yo) with diabetes who are on treatment (STEPS 2023; SARA 2023)

Indicator	Baseline	Target	Current Status/Progress
Adults 15-59 years with diabetes who are on (successful) treatment	9.1% among adults (2012); 45% facility treatment readiness (SARA 2020)	>25%	Facilities readiness to treat diabetes remains at 45% (SARA 2023), no progress from the baseline.

Recommendations

- It is impressive to observe that the trend of diabetes has taken a downward trajectory, this is highly commendable: Strengthening of the strategies which have yielded this positive trend is highly recommended.
- Hypertension remains to be the leading cause of morbidity among NCD patients. A special attention should be directed to this disease by strengthening both preventive and curative interventions.
- Cumulatively, morbidity due to NCD is increasing annually, therefore research should be commissioned to better the determinants or drivers for this trend.
- Research should generate evidence and recommendations on how the trend can be reversed before the end of HSSP V. This will further inform the development or revision of strategies for NCD in the HSSP VI and the forthcoming HSSP V.

Provision of mental health services at Primary, Secondary and Tertiary level

One of health sector priorities on NCD was to ensure availability and management of mental health services in the communities and health care facilities at all levels. The provision of healthcare services for mental health has been expanding to the PHC level. The DHIS2 data attests to this expansion, provide a trend mental health problem registered for the past three years (Figure XXX).

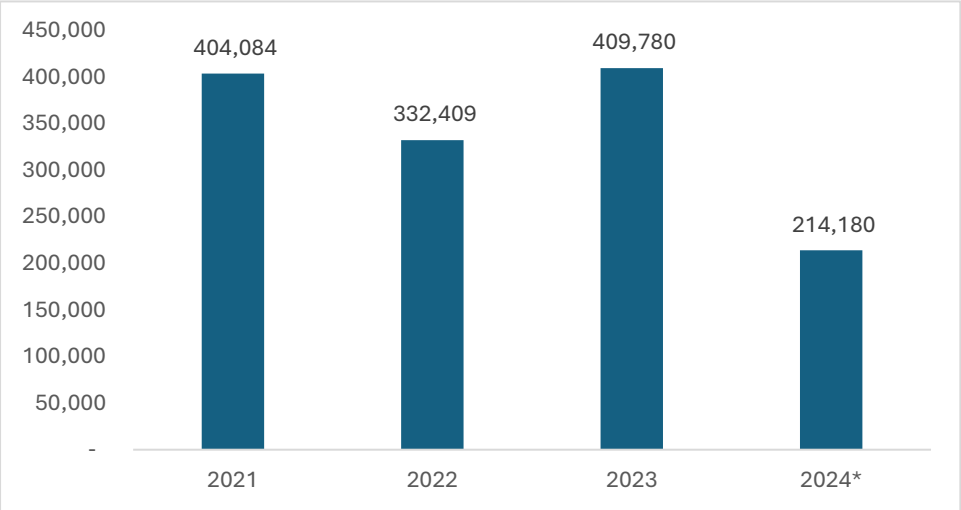

Figure XXX: Number of Mental Health cases attended at the PHC facilities from 2021 to June 2024 (Source DHIS2)

Disaggregation of OPD data according to the type of mental health problem has revealed that >47% of all cases are due to epilepsy, followed by psychoses (~20%) and neuroses (~15%) (Figure XXX)

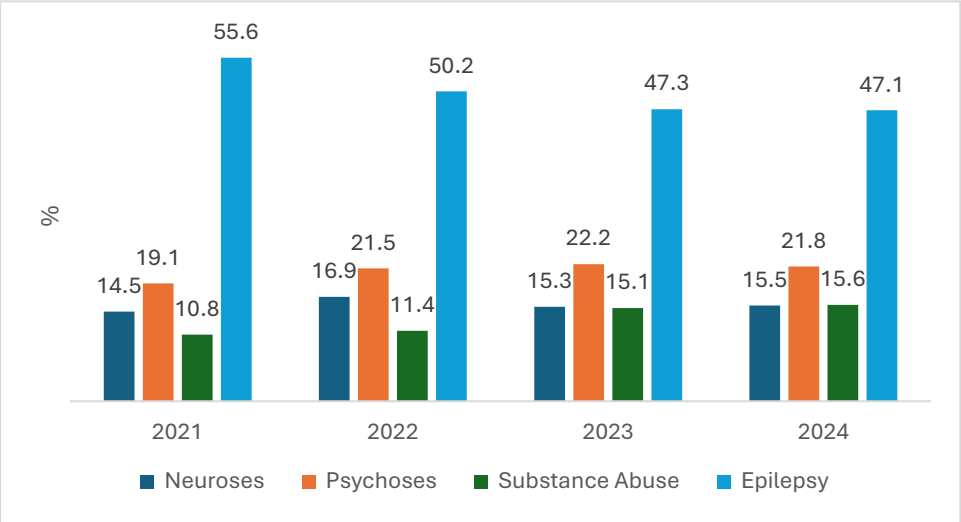

Figure XXX: Trend of different types of mental health problems registered at the PHC (Source DHIS2)

Recommendation

- The expanded access to mental health services at the PHC level is highly commendable. This has helped to determine how big the mental health problem is in the country.
- Sustenance of this progress and further improvements are recommended to ensure that patients have increased access to the mental health services.
- Regular capacity strengthening for PHC should be deliberately supported to ensure the mental health services continue to expand with highly improved quality.

4. PROVISION HEALTHCARE SERVICES FOR NCD

One of the key priorities of the HSSP V is to strengthen the provision of curative, management and preventive services for NCD and their co-morbidities. This entails increasing the number of healthcare facilities with essential NCD medicines and basic technologies to treat major NCD. To better appraise progress, SARA reports of 2017, 2020 and 2023 were reviewed.

a) Service availability for NCD

There has been an increasing number of health facilities providing healthcare services for NCD from 2017 to 2020. However, the SARA report of 2023, has revealed a slight decreasing proportion of health facilities which provide services for NCD (Figure XXX). This may be attributed to the increased number of new health facilities most of which have limited human resources, medical equipment and general medical supplies as they are at the take off stage. Thus, as of 2023, just over 40% of the health facilities in the country provided services for three leading NCD namely diabetes, cardiovascular diseases and chronic respiratory diseases. On the other hand, screening for cervical cancer remains low (20% as of 2023) despite the ongoing advocacy.

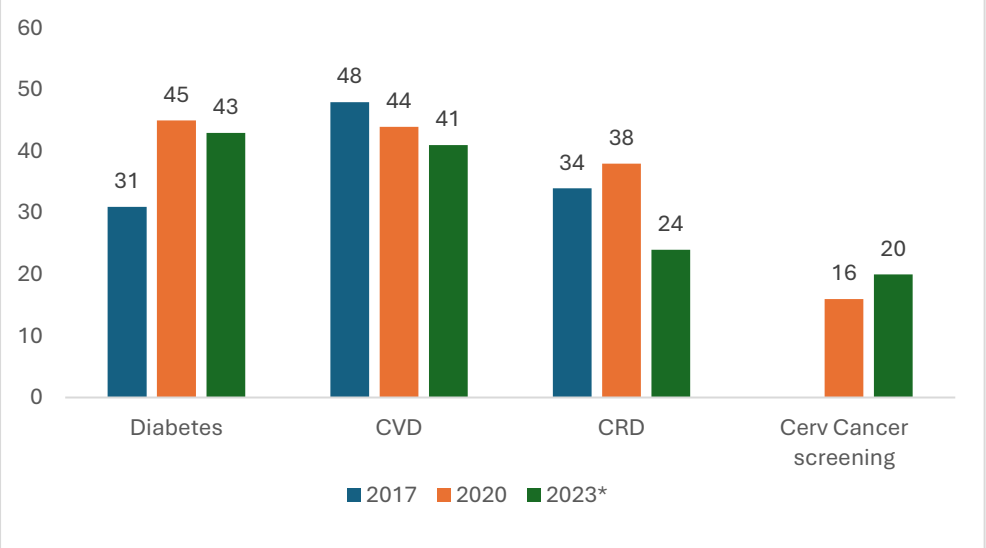

Figure XXX: Service availability for NCD from 2017 to 2023 (Source SARA reports)

b) Availability of tracer medicines and commodities for NCD

The availability of tracer commodities varies according to the type of the NCD. To better evaluate the performance, the findings from SARA 2017, 2020 and 2023 reports were compared to establish a trend. Overall, the availability of tracer health commodities at the health facilities has been improving for all major NCD (Figure XXX).

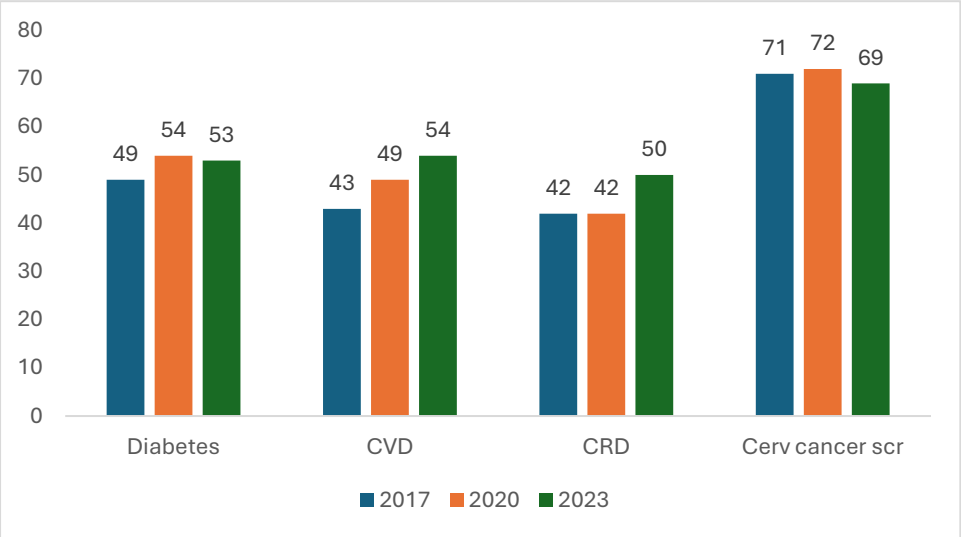

Figure XXX: Availability of tracer medicines for NCD at the health facilities (Source SARA 2017, 2020, 2023 report)

Despite the improvement in the availability of tracer commodities, the number of health facilities with all required commodities for delivery of NCD service has consistently remained exponentially low for diabetes, cardiovascular diseases, and chronic respiratory diseases. On the other hand, >30% of the health facilities have been found to have all items to support the screening of cervical cancer (Figure XXX).

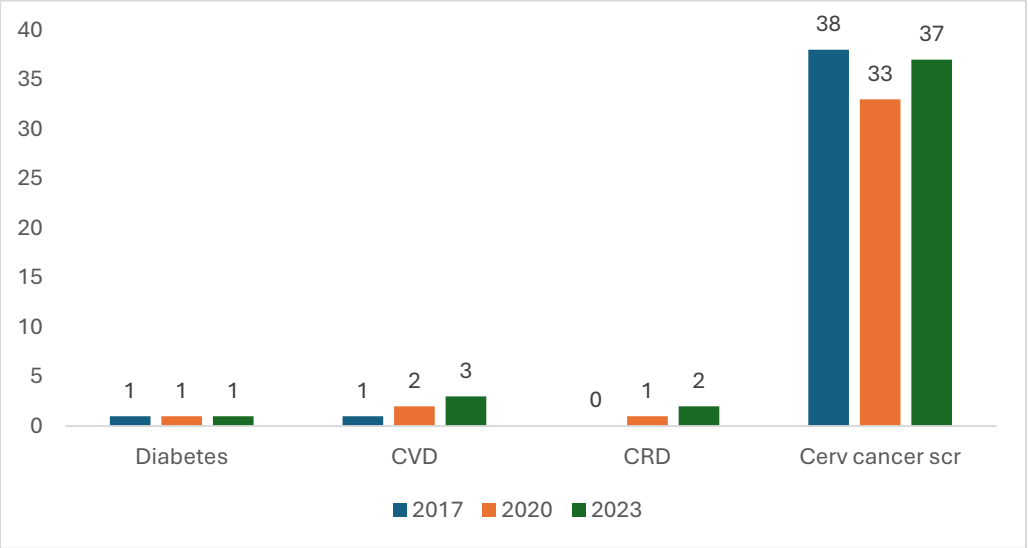

Figure XXX: Proportion of health facilities with all items required to support services for NCD (Source SARA 2017; 2020; 2023 reports)

Indicator	Baseline	Target	Current Status/Progress
Percentage of healthcare facilities with essential NCD medicines and basic technologies to treat major NCD.	<50% (SARA 2020)	80%	The proportion of health facilities with essential commodities for major NCD remains <50% (SARA 2023). The availability of tracer commodities is <50% for diabetes, CVD and CRD, while for cervical cancer screening is ~70% (SARA 2023).

Reflection of MoH, PORALG, Research Institutions and Professional associations on the improvement of services for NCD

The health sector has been expanding access to NCD services to ensure that patients have access to basic services right at the PHC level. The expansion has been done alongside improving the referral system within the PHC, here many health facilities especially dispensaries do screen and refers patients to health centres and hospitals for further medical attention. During the past three years, the following improvements have been made:

- PHC facilities have integrated NCD in the triage service/system, this helps to monitor the burden of NCD through OPD data.
- The NCD programme in collaboration with Tanzania Diabetes Association (TDA) conducted capacity building to 2880 healthcare workers from 710 public health facilities from 2021 to 2023.
- Supply of basic equipment and consumables for NCD continue to improve and this ensures service availability.
- There has been a review of the STG to allow health centres to prescribe NCD medicines which in past they couldn't. This has increased access to diagnosis and treatment of NCD.
- Some Council hospitals have ICUs therefore can attend to complex cases like stroke before referring patients to the regional referral hospitals.

Challenges

- Despite the decentralization of NCD services, the PHC is limited in terms capacity to provide quality services. Sustained regular training is needed to ensure treatment or management of NCD is done correctly and efficiently.
- Limited funding for NCD in general with mental health services being the most affected.
- Cost sharing for NCD is low as most patients cannot afford the cost. Furthermore, NCD are chronic lifetime diseases which require funds for proper management.
- Too much focus on the treatment and management of NCD. Improving access to medical services only won't address NCD problem.

Key observation

Despite the progress in the provision of NCD services, the availability remains below 50%. A slight decrease in the availability of tracer commodities observed in 2023 may be due to the increasing number of new health facilities most of which are in the take off stage, thus faced with multiple challenges such as shortage of human resources, supply chain issues, clinical and laboratory equipment to support the delivery of services.

Recommendations

- The expansion of services for NCD should be done alongside regular capacity strengthening programme for healthcare workers. New technologies for NCD are developed regularly thus prompting the need to keep healthcare workers informed.
- It might be necessary to deliberately provide more services in the regions which have the highest burden of NCD, at the same time strengthening preventive interventions in the regions with moderate to low burden.
- Financing services for NCD is a challenge, therefore leveraging resources through integration of services is highly recommended.
- Investment and promotion of preventive interventions need to be intensified to slow down a growing burden of NCD in the country. For instance, inclusion of NCD in the health basket fund will enhance access and improve quality and efficiency of services delivery for NCD.
- While the government continue to improve access to healthcare services for NCD at all levels, it is important these improvements to be supported by implementation research (IR) which will identify gaps and bottlenecks affecting the efforts. IR will further provide recommendations on the strategies and feasible approaches of addressing gaps and bottlenecks.

5. ADDRESSING RISK FACTORS FOR NCD (STEPS 2023)

Prevalence of Overweight and obesity among adults 24-65yo.

Indicator	Baseline	Target	Current Status/Progress
Overweight and obesity among adults 25-64 years	Overweight 26%% M 15%, F 37.5) Obesity:8.7% (M2.55, F 15%)	No increase	

Reduction in the harmful use of alcohol as appropriate within the national context

Indicator	Baseline	Target	Current Status/Progress

6. STRENGTHENING MONITORING OF NCD THROUGH THE HMIS

Hypertension and diabetes became among the top 10 diseases in 2019, at the same time the burden of other NCD kept on growing in the country. This raised a need to strengthen the HMIS to adequately capture and post routine health facilities data for NCD. To ensure the data received is complete and of high quality, the MoH through the Department of Monitoring and Evaluation has:

- Introduced NCD in the HMIS coupled with training on data issues related to hypertension, diabetes, mental health and other NCD.
- Conducted regular training to strengthen the M&E platform for NCD and other diseases
- Developed data quality assurance guideline for Regional, District and health facilities officers focusing cross checking data completeness, validation and data cleaning.
- Strengthened supportive supervision by developing tools for NCD integrated in the Afya Supportive Supervision System (AfyASS). This development has enhanced data quality and completeness, at the same time improving the delivery of quality services.

Progress

- NCD data from PHC is routinely posted to the HMIS and this has helped the M&E and NCD programme analytical reports in a quarterly basis.
- The key NCD namely hypertension, diabetes, chronic respiratory diseases, mental health and road injuries have all been included in the HMIS.
- The NCD programme has been able to produce annual reports in 2021/2022, 2022/2023 and 2023/2024. This supported by the data availability.
- The GoTHOMIS at the PORALG is now interoperable with the HMIS, and this has greatly enhanced monitoring service delivery for NCD and other diseases.
- Within GoTHOMIS NCD has a special dashboard which disaggregate data based on the disease, or by council and health facility making it easy to monitor and provide supportive supervision.

Recommendations

- The Ministry should expedite the integration of health information systems used by regional, zonal and tertiary referral hospitals so that all routine data can centrally be accessed through HMIS. Currently the available data is from PHC facilities only where MUTUHA books continue to be used.
- Capacity strengthening of HMIS focal persons as well as healthcare workers to facilitate timely posting of data should be sustained.

7. STRENGTHENING RESEARCH ON NCD

One of the priority areas of the HSSP V on NCD is to strengthen coordination and the undertaking of research activities on the prevention and control of NCD and related co-morbidities. To implement this priority the National Health Research Agenda 2021-2026 (NHRA), and the Tanzania NCD Research Agenda 2022-2026 were developed and rolled out to guide the implementation research on NCD.

Specifically, the NCD research agenda prioritized research on the burden of NCD, risk factors for NCD, enabling environment, health systems, innovative and implementation research on NCD (responsive to current needs of enhancing access and quality of healthcare service for NCD), and multisectoral approach in addressing NCD and related comorbidities (MoH, 2022a; 2022b).

Progress

Despite limited funding on NCD research activities, there have been research activities focusing on various aspects of the NCD, including the burden of NCD, risk behaviour such alcohol consumption etc, NCD-HIV comorbidity, Integrated service delivery for chronic diseases, and health systems. Some of works from research activities have been presented at the NCD conferences where research findings on NCD were delivered for deliberation and to inform policy decisions.

Implementation research which tests different strategies of delivering services for NCD have also been implemented. An example is the PenPlus project at NIMR, which is being implemented in Kondoa District, Dodoma and Karatu District, Arusha. The project has been building capacity of PHC to deliver services for diabetes and hypertension and raise awareness about NCD and their management. The project has brought a lot of improvements on service delivery, communities' awareness on the availability of services, and enhanced competences of healthcare workers in dealing with NCD.

The Tanzania Diabetes Association (TDA) has supported postgraduate training on NCD by sponsoring 5 projects addressing priorities stipulated in the NCD research agenda. Some of these studies have yielded publications available in the public domain. The implementation of the National NCD research agenda is ongoing as several studies on NCD are ongoing at KCRI, IHI, MNH, MUHAS and other institutions. Despite these developments, there are some gaps which need to be addressed for the research on NCD to be responsive to health system and public health needs.

Gaps/challenges

- The mid term review of the NCD research agenda is underway, so to date it is difficult to establish how many research projects on NCD have been conducted since it was launched.

- Most NCD projects are focusing on epidemiology, whilst the useful research evidence on NCD should come from longitudinal studies.

- The hasn't been studies focusing on the quality improvements, this important as the country continue to decentralize NCD services.

- Limited local financing of NCD research thus making it challenging to address the key priorities which will lead to improving quality and availability of services.

- Despite the limited number of research projects on NCD, the utilization of findings and recommendations to improve the delivery of services and interventions has been low.

Recommendations

- More research focusing on capacity strengthening for delivery of quality services for NCD is needed.
- Research on health financing for NCD which will come up with recommendations on feasible financing mechanisms for NCD is needed.
- Implementation research on preventive strategies against NCD should be promoted to generate evidence on how best interventions should implemented to slow down a growing burden of NCD.
- The government should deliberately set aside funds to support research projects on NCD which are contextually relevant and responsive to health system needs.
- The Government should utilize research findings to inform further improvements in service delivery for NCD at all levels.

8. STRATEGIC OUTCOME- INFECTIOUS DISEASES CONTROL

A review of progress made in addressing infectious diseases focused on Malaria, HIV, TB and NTD. Using the indicators provided in the HSSP, the progress was assessed using programmatic performance some of which have mid term review reports e.g. the National Malaria Control programme.

a) MALARIA

Measure indicator	Baseline	Target	Progress/Status
Malaria parasite prevalence among children 6-59 months	15% (TDHS 2015/16); 7.5% (TMIS 2017).	<3.5% (NMCP, 2021-2025)	8.1% (TDHS-MIS 2022). Prevalence of malaria parasite increased by 0.6%.
Use of ITN among children under 5 and among pregnant women	56% (TMIS 17); 51% (TMIS 2017)	80%	64% in,5yo children; 65% among pregnant women (TDHS-MIS 2022): There is an increase in the utilization of ITN, however more efforts are needed to further increase the uptake if the target is to be reached.
IPTp2 doses among pregnant women	56% (TMIS 2017) 79% (DHIS2, 2015)	85%	89% 2023 (DHIS2); 60.1% (TDHS-MIS 2022). Slow progress when TMIS survey data used, but DHIS2 indicate

			excellent surpassing the target. Despite the discrepancy there is an increase in IPTp2 compliance.

Recommendations:

- A 0.6% increase in the prevalence of malaria parasite among children aged 6-59 months is a wakeup call to review the preventive strategies for malaria. Regions such as Tabora (23%), Mtwara (20%), Kagera (18%), Mara (13%), Kigoma (13%), Geita (13%), Lindi (11%) and Simiyu (11%) where higher prevalence were recorded requires special attention to reverse the trend.
- There is a need to address the discrepancy between DHIS2 and Survey data on IPTp2 uptake. This is to avoid ambiguity when making decisions on what should be done to improve the uptake of IPTp2.
- Strategies to promote utilization of ITN need to be strengthened to accelerate the realization of the 80% target.
- Additional indicators on the vector control (Entomological interventions) strategies should be added in strategy to enable a fair appraisal on the efforts to fight malaria.

b) HIV/AIDS

Measure indicator	Baseline	Target	Progress/Status
HIV incidence per 100 adults and young people (15-24)	Incidence 15-24 per 1000 PY: 15-24: 0.29 (F:0.14/M:0.00) (THIS 2016/17	50% reduction in incidence: 0.03 per 1,000 per 1,000 person years	Incidence rate decreased to 0.17 (THIS 2022/2023). Good progress and on course to achieve target. As of 2023 a reduction of 41.3% of incidence rate realized.
PMTCT: newborns with HIV infection	7.9% (UNAIDS, 2020)	3%	Despite a consistent decline of Mother to Child Transmission, still Newborns with HIV infection remains high at 6.9% (AHSP 2023). The NASHCOP strategy mid-term review revealed 8.1%. The progress stalled.
ART coverage among people living with HIV, with viral load suppression	94% (NACP, 2020)	95%	ART coverage reached 97.9%, Viral Load Suppression 94.3% (THIS 2022/2023). The NASHCoP Strategy MTR revealed VLS of 95.2%. There is progress on the 2nd and 3rd of the triple 95. Clients on ART have

			surpassed a target of 95%, however VLS remains slightly below 95%
Percentage of adults and children with HIV known to be on treatment 12 (24; 60) months after initiation of AR	Adults:82% Children: 86% (NACP)	90% (for both adults and children)	The percentage of adults and children with HIV known to be on treatment has increased to 96% for 12months, and 95% for 24months. Performed beyond the five-year target.
Prevalence of Hepatitis B among 15 years and above	4.1% (THIS 2016/2017)	Reduce new infections by 90% in 2030	New infections have declined to 3.5% (THIS 2022/2023).
Prevalence of Hepatitis C among 15 years and above	1.1% (THIS 2016/2017)	Reduce infection by 90% in 2030	New infections have declined to 0.2% (THIS 2022/2023)

Trends of some key indicators for HIV (From NASHCoP strategy MTR)

a) Trend of new HIV infection from 2010 – 2023

The trend of new HIV infections has been declining steadily from 2015 reducing the number of new HIV infections by 50% per year in 2023 from 2010 baseline (Target is to reduce by 85% by 2025) and the number of AIDS-related deaths have also been declining steadily from 2010 reducing the number of AIDS-related deaths by 62% in 2023 per year from 2010 baseline (Target is to reduce by 80% by 2025).

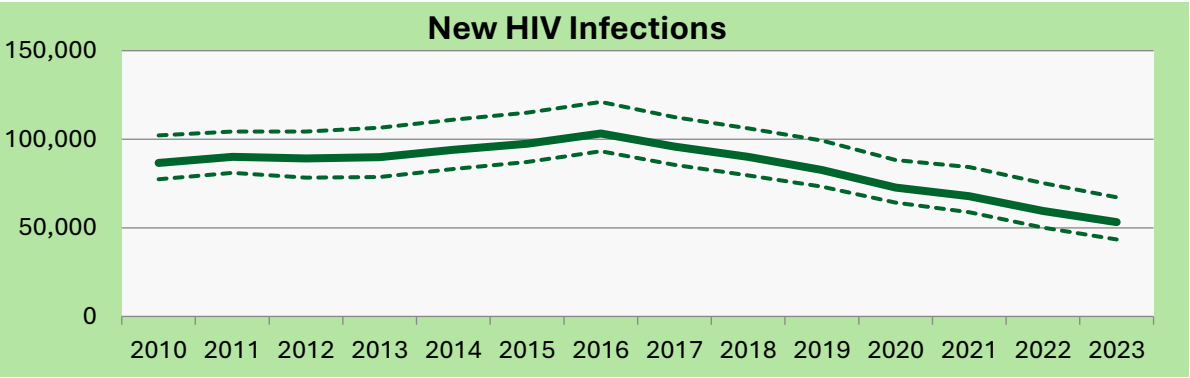

Figure XXX. Trend of New HIV infections 2010-2023 (Source: NASHCoP Strategy MTR)

b) PMTCT: newborns with HIV infection (MTCT Rate): The rate of elimination of Mother To Child Transmission (eMTCT) has decreased from 18% in 2015 to 8.1% in 2023. The target is eMTCT rate of less than 4% per year) (Figure XX).

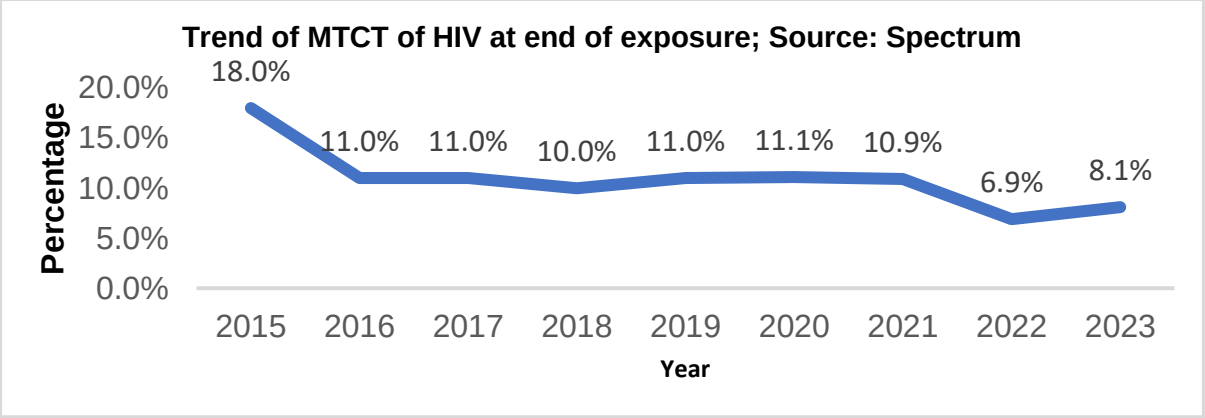

Figure XXX. Trend of eMTCT at the end of HIV exposure from infected mothers (Source: NASHCoP Strategy MTR report).

Recommendations:

- Overall, there is a remarkable progress in addressing HIV in the country, however a review of strategies to further improve the uptake and effectiveness of PMTCT is needed to enhance protection of newborns from HIV infection.
- Strategies for promoting the uptake of HIV Testing Services (HTS) need to be revised and promoted to improve the performance on the first 95% of the triple 95s.
- Implementation research to understanding the implementation barriers for HTS is recommended as it will generate evidence which can be used to inform a review of current strategies used in the promotion of voluntary counselling and testing for HIV.

c) TUBERCULOSIS

Measure indicator	Baseline	Target	Progress/Status
TB incidence per 100,000 population	237 per 100,000	162 per 100,000	183/100,000 (2023) (DHIS2; TB prevalence survey). There is a decrease of 23% of TB incidence rate. The target is to reach 32% decrement, which the programme is likely to achieve.
TB treatment coverage (with success)	59% (2019)	90%	76% (2023) DHIS2; NTLP; WHO estimates (global report). The Treatment coverage has increased from 59% to 76%. This is appreciable progress, and the

			programme is on track to achieve the target.

Overall reflection and recommendations on the control of TB

- There is a great progress on the treatment coverage implying good performance, however more work is needed to sustain the gains, and continue raising awareness about TB.
- There is a need to add an indicator on the detection of latent TB as it remains to be one of the threats to the progress made in the detection and treatment of TB.
- An indicator on TB and other chronic diseases co-morbidity is needed to be able assess how integrated service delivery can help to leverage resources at the same time yielding better outcomes.

d) NEGLECTED TROPICAL DISEASES (NTD)

The review of progress made on the elimination of NTD has been approached based on specific disease. The diseases include Lymphatic filariasis, Onchocerciasis, schistosomiasis, Trachoma and Soil Transmitted Helminths. The HSSP V did not provide indicators and their parameters to be used for reviewing progress. Therefore, a review is based on the monitoring and evaluation framework provided in the NTD Masterplan 2021-2026.

Indicator	Specific NTD	Baseline 2020/2021	Target 2025/2026	Progress/Status
Number of councils having eliminated at least one NTD	Lymphatic filariasis: Elimination	110 Councils	119 Councils	The Councils which have eliminated LF increased to 114. There is progress as four additional councils have elimination of LF.
	Lymphatic filariasis: Number of endemic districts with Active transmission of LF above 2% from one recording year to another.	9 Councils	0	7 Councils remains with active LF transmission >2%. Progress has been made on this indicator, but more work is needed to reach the target.
	Schistosomiasis: Number of endemic councils with Schistosomiasis prevalence <1%	184 Councils	54 Councils	No progress made as number of endemic councils remains 184.
	Trachoma: Elimination	61 Councils	69 Councils	No progress as no additional Councils have eliminated trachoma from 2021.

Number of patients who were operated for hydrocele.	Lymphatic filariasis; morbidity management and disability prevention	7025 patients	10,000 patients	11,509 patients underwent surgeries for hydrocele. Performed beyond the target.
Number of councils having eliminated Trachomatous Trichiasis	Trachoma: Elimination	38 Councils	84 Councils	As of 2024, 54 Councils have eliminated Trachomatous Trichiasis. There is progress however more work is needed to achieve the target.
Reduce TT backlog in all endemic councils by 90% by 2026: TT surgical rate coverage.	Trachoma: MMDP	42,000 Patients	30,600 patients	Reduction of 13,139 (43%) of TT backlog realized. There is progress however more effort is needed to achieve the target.

Recommendations

- The efforts to eliminate NTD requires multisectoral approach. For instance, to realize a notable progress in the elimination of schistosomiasis and trachoma various sectors must be brought in the equation. They include Water resource, Agriculture, livestock and fisheries, construction/works, environment and health itself. It is important that integrated approach be adopted to accelerate control and elimination of these NTD.
- The delivery of interventions for NTD need to be expanded to include both programmatic and routine healthcare service delivery, this will increase the attention from national to the subnational levels.
- The NTD should be integrated in the routine healthcare so that routine data on the burden and service delivery for NDT can be accessed through HMIS.
- The capacity of healthcare workers at the PHC level should be strengthened for correct diagnosis and treatment of NTD.
- Despite the inclusion of NTD in the HSSP V, these diseases have no indicators to guide proper monitoring and evaluation of performance. Going forward, well formulated measure indicators (Impact and Coverage) need to be included in the strategy for these diseases to get a deserved attention.

9. DISCUSSION

Non-Communicable Diseases

The main goal of the HSSP V is to reduce morbidity and mortality due to NCD by the year 2026. The MTR has revealed that morbidity and mortality due to NCD have been increasing annually. Despite an overall increase in the morbidity due to NCD, review on specific diseases showed that diabetes mellitus has been decreasing annually indicating great progress in addressing risk factors associated with this disease. This trend should be sustained by

intensifying health education on the prevention strategies and comprehension of the key health determinants and drivers for diabetes mellitus. On the other hand, a special attention is needed on the growing burden of hypertension in the population. Hypertension continue to be the leading cause of morbidity and mortality among NCD patients. A review of prevention strategies and promotion of early detection and treatment of hypertension is recommended to contribute to a reversal of the trend. Additionally, implementation research to identify gaps or drivers responsible for high burden of hypertension is needed to determine the best or appropriate strategies to address this disease.

A review of policies required to support the efforts to fight NCD under multisectoral approach has revealed several gaps. This is despite the ongoing efforts to promote interventions for NCD under the HiAP or SWAp approach. Learning from HIV and nutrition which have received support from all sectors, addressing NCD under multisectoral approach will accelerate prevention of these diseases, and reverse the annual growth trend. Fortunately, there is a direct link between Nutrition, HIV and some NCD, and this can be used as a compelling factor to get NCD addressed under multisectoral approach. Furthermore, most sectoral policies are old and were developed at the time NCD was not a big threat to public health. Therefore, there is a great opportunity to accommodate the NCD during policy reviews or development of the new policies. This should be championed by the National NCD multi-sectoral steering committee (NMSC) for it to receive a deserved attention.

Infectious Diseases

Appreciable progress in achieving the targets has been registered for Malaria, HIV and tuberculosis. Only a few areas of concern exist for HIV and malaria. For HIV, achieving the first 95% of the triple 95s has continued to a challenge. It is recommended that a review of strategies for HTS should be done to address barriers on the uptake of this service. It is important to commission implementation research to determine factors which are responsible for the underperformance and recommend the strategies which will enhance the uptake of HTS. Despite a continued decrease on the number of newborns with HIV infection, the uptake of PMTCT still requires promotion. Midway into the implementation of HSSP V, the number of newborns with HIV infection is at 8.1% which higher compared to the target of 3%. This need to be interrogated through implementation research to determine what is not working and why? Research should come up with recommendations which will improve the PMTCT performance to reach the target.

The prevalence of Malaria parasite among children aged 6-59 months increased from 7.5% in 2017 to 8.1% in 2022. This is intriguing because within the same period the utilization of ITN by the <5yo children and pregnant women increase by 10%. With this increase, the expectations were to find a decreased prevalence of malaria parasites which is not the case. With this trend, it is unlikely that the target of 3.5% will be achieved by 2026. Going forward, it is important to determine what drove this increase, and what should be done to reverse the trend. One of the key areas to be considered during the revision of the strategy is to include indicators for vector control. It might be counter productive if the focus remains on the treatment of malaria and utilization of ITN, as these can be affected by several factors such as behavioural, attitude and supply chain issues.

A review on addressing the burden of NTD in the country revealed slow progress on schistosomiasis and onchocerciasis. Notable performances were recorded on lymphatic filariasis and trachoma even though more work is still needed to achieve elimination across all endemic councils. The limiting factor for accelerating control or elimination of NTD in the

country is that these diseases continue to be addressed programmatically. Most of the interventions depend on the availability of donor funds, which compromises consistency in the delivery of preventive chemotherapy and other interventions. It is strongly recommended that NTD be integrated in the routine healthcare service so that communities can at anytime access treatment of the NTD. Additionally, drivers for NTD are multisectoral, hence NTD should also be addressed with a multisectoral approach. For instance, improving water supply in the rural areas will interrupt transmission of schistosomiasis. Equally promoting the use of toilets through the "Nyumba ni Choo" campaign will significantly reduce the burden of schistosomiasis in the endemic areas. Overall, there is still much to be done on NTD for the targets to be reached. Going forward the indicators for NTD should include integration of NTD in the routine healthcare services, and integration of NTD data in the DHIS2. Funds to support implementation research on NTD should be dedicated to support generation of evidence to inform planning and delivery of services.