JIHS
Japan Institute for Health Security

Sharing the Experiences from the Project to Strengthen Oral Health Services in Kenya, Tanzania and Zambia by Utilizing the WHO-listed Essential Dental Preparations

Fluoride Toothpaste, Silver Diamine Fluoride, and Glass Ionomer Cement

Webinar Report of the Oral Health Project

This webinar was held in 27th February, 2025, and was supported by "Projects for Global Growth of Medical Technologies in FY2024" organized by the National Center for Global Health and Medicine under the Ministry of Health, Labour and Welfare, Japan

Contents

ISBN: 978-4-909675-91-0

Preface

The present report summarizes the webinar on the oral health project entitled “Sharing the Experiences from the Project to Strengthen Oral Health Services in Kenya, Tanzania, and Zambia by Utilizing the WHO-listed Essential Dental Preparations—Fluoride Toothpaste, Silver Diamine Fluoride, and Glass Ionomer Cement,” which was held on February 27, 2025. The oral health project aims to develop the capacity of the Ministries of Health in Kenya, Tanzania, and Zambia to strengthen oral disease prevention and control services by utilizing the WHO essential dental preparations. The availability of these materials and related services remains suboptimal in African countries.

The Japan Institute for Health Security, formerly known as the National Center for Global Health and Medicine in Japan (WHO Collaborating Center (WHO CC) for Health Systems Development), in collaboration with Niigata University in Japan (WHO CC for the Translation of Oral Health Science), initiated the new capacity-building project to promote the integration of oral health services into universal health coverage and thus contribute to reducing the prevalence of dental caries through the dissemination and deployment of the abovementioned three dental materials in Kenya, Tanzania, and Zambia. The WHO Regional Office for Africa (AFRO) is a collaborative agency that provides technical support to implement this project.

The report focuses on a few of the important aspects of the utilization of the WHO essential dental preparations, such as different types of oral health services provided across the countries. It is noteworthy that in some cases, the identification of barriers and facilitators to improve the availability, accessibility, and affordability of oral health services and essential dental materials should align with the local contexts.

If the report could help any person in providing information, its purpose would have been fulfilled.

Professor Hiroshi Ogawa
Director of the WHO Collaborating Center for
Translation of Oral Health Science
Niigata University, Japan

National Center for
Global Health and Medicine
WHO Collaboration Center
for Health System Development

Niigata University
Faculty of Dentistry
WHO Collaboration Center
for Translation of Oral Health Science

Webinar Report of the Oral Health Project

Sharing the Experiences from the Project to Strengthen Oral Health Services in Kenya, Tanzania, Zambia by Utilizing the WHO-listed Essential Dental Preparations

Fluoride Toothpaste, Silver Diamine Fluoride, and Glass Ionomer Cement

Date : February 27, 2025

Time : 09:00-10:45 (GMT)
10:00-11:45 (Brazzaville time)
18:00-19:45 (JST)

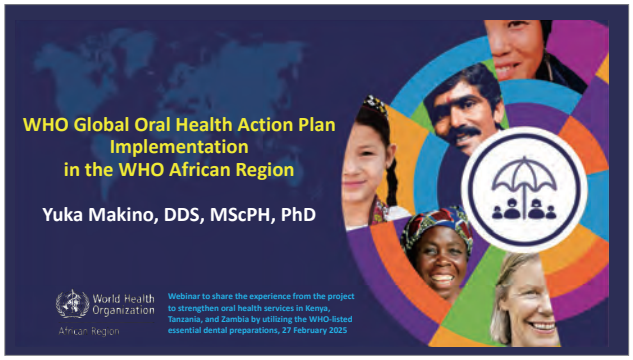
Agenda :

Time (GMT)	Topic	Presenter
09:00	Introduction, agenda and housekeeping	Niigata University
09:10	Setting the scene: oral health situation in Africa	AFRO
09:20	Introduction of Oral Health Project in Kenya, Tanzania, and Zambia	NCGM
09:25	Findings from a training workshop in Japan - Access and Delivery -	NCGM
09:35	Q&A	
09:45	Experience sharing from Kenya, Tanzania and Zambia	Representative from Kenya, Tanzania, and Zambia
10:15	Panel discussion	
10:35	Suggestions to improve access to WHO-listed dental preparations	AFRO
10:40	Comments and closing	NCGM

Note: the presentation slides for “Findings from a training workshop in Japan” are currently under preparation for publication and are not for public distribution.

1 WHO Global Oral Health Action Plan Implementation in the WHO African Region

Yuka Makino
Technical Officer, WHO Regional Office for Africa



Yuka Makino : Thank you very much for giving me the opportunity to present "WHO Global Oral Health Action Plan Implementation in the WHO African Region". I am Yuka Makino, a focal point for oral health at the WHO Regional Office for Africa.

Disease burden - oral diseases are global and regional problems

- Oral diseases are **the most common diseases** globally and regionally
- Around **42%** of population in the WHO African region estimated suffered from major oral diseases in 2021
- The region experienced **highest increase in the number of oral diseases cases** in 30 years

	Global	World Bank low income	World Bank lower-middle income	World Bank upper-middle income	World Bank high income
Oral diseases	1	1	1	1	1
Neurological disorders	2	5	2	3	2
Digestive diseases	3	7	4	2	6
Respiratory infections & TB	4	4	3	4	9
Skin diseases	5	3	5	6	5
Sense organ diseases	6	9	8	5	7
Musculoskeletal disorders	7	11	9	7	3
NTDs & malaria	8	2	7	12	19
HIV/AIDS & STIs	9	8	10	8	10
Nutritional deficiencies	10	6	6	13	15

Ranking of most prevalent conditions per World Bank country income level in 2019

World Health Organization African Region

Reference: WHO (2023). Global oral health status report: towards universal health coverage for oral health by 2030: regional summary of the African Region
Institute of Health Metrics and Evaluation (IHME). Global burden of disease 2021 (GBD 2021) results. https://vizhub.healthdata.org/gbd-results/

First, why oral disease matters. As you know, we have a huge burden of oral diseases. Oral diseases are global and regional problems, and they are the most common diseases globally and regionally. As you can see on this slide, the most prevalent condition is oral disease across all income levels. In 2021, it was estimated that approximately 42% of the population in Africa suffered from major oral diseases. And then, in the African Region, we notably experienced the highest increase in the number of oral disease cases over the last 30 years, mainly due to population growth.

Under investment in oral health in the Region

- **Half of the countries** do not have oral health policies
- **More than 70%** of the countries spent **less than US$ 1 per person per year on treatment costs for oral health care** in 2019 (vs global average: **US$ 50** per person per year)
- **Only a limited number of trained oral health professionals** are available (e.g., dentists for 100 000 people was around one-tenth of the global ratio)

World Health Organization African Region

Reference: WHO (2023). Global oral health status report: towards universal health coverage for oral health by 2030: regional summary of the African Region

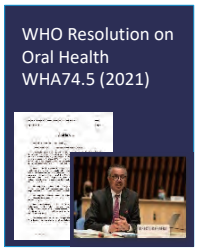
Even we have a high burden of oral diseases, we face under-investment in oral health in the Region. For example, half of the countries do not have oral health policies. More than 70% of the countries spent less than US $1 per person per year on treatment costs for oral health care in 2019. You can compare it to the global average. The global average is US $50 per person per year.

We have oral diseases, but we do not have many oral health professionals to address this issue because, for example, the number of dentists per 100,000 people in the Region is one-tenth of the global ratio. The oral health workforce, including dentists, dental therapists and dental assistants, is one-sixth of the global ratio.

WHO's mandate from Resolution WHA74.5 (2021)

Time for implementation and full integration into NCD & UHC agendas!

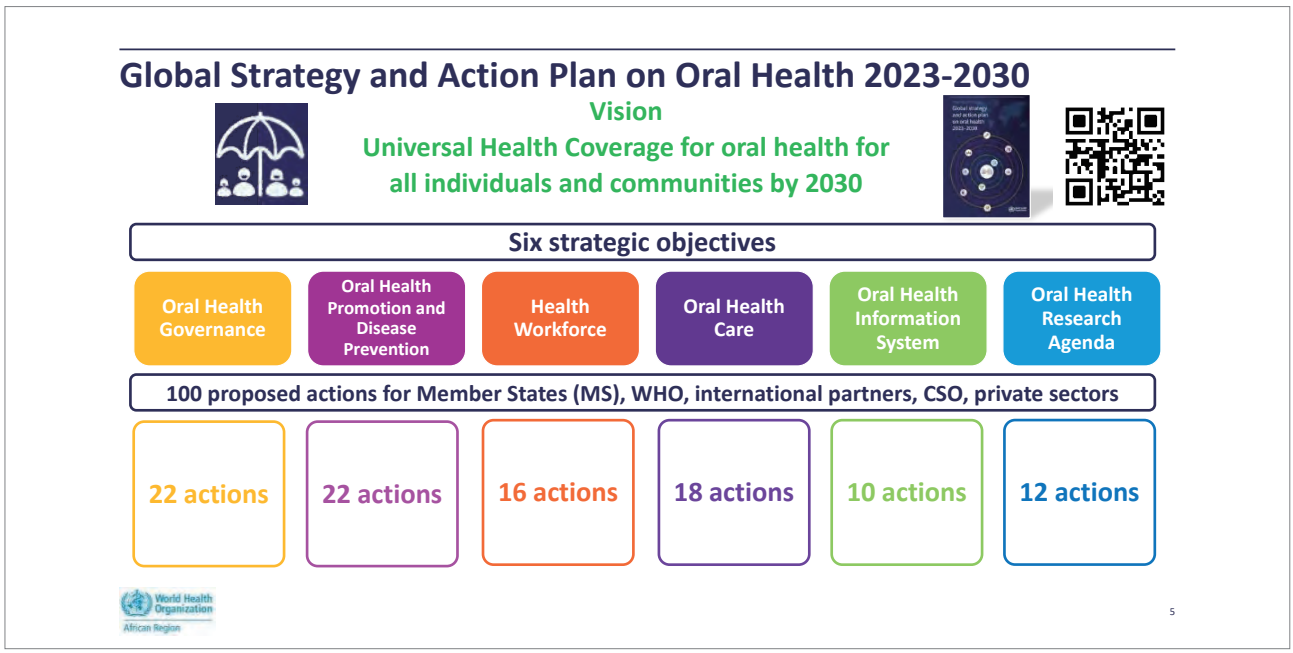
- ✓ Global strategy on oral health adopted in May 2022 (WHA75(11))
- ✓ Global oral health action plan 2023-2030 (GOHAP) in May 2023



World Health Organization African Region

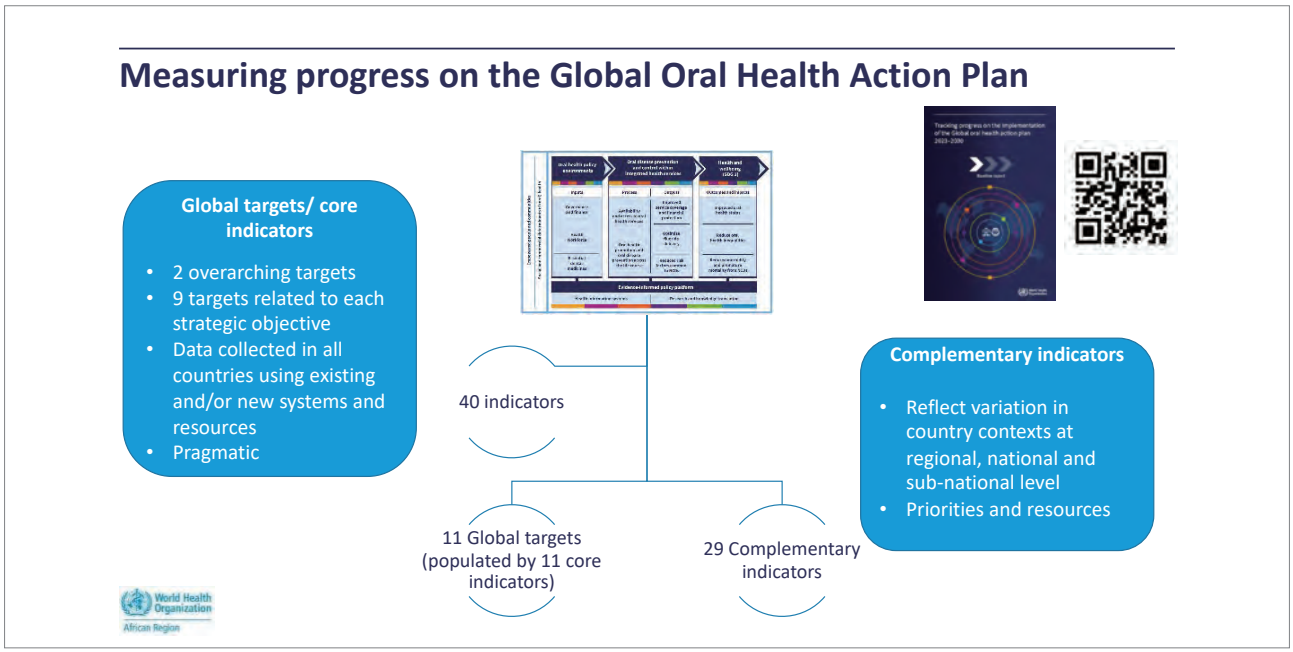
To address this issue, at the World Health Assembly in 2021, 194 WHO Member States requested WHO to integrate oral diseases as a part of the NCDs prevention and control in the context of UHC.

In this resolution on oral health, Member States also requested WHO to develop a global strategy on oral health. To translate this strategy into the action at the country level, the Member States also requested WHO to develop the Global Oral Health Action Plan. The strategy was already adopted in 2022, and the Global Oral Health Action Plan was adopted in 2023.



I would like to summarize the Global Strategy and Action Plan. The goal and the vision of this strategy is UHC for oral health for all individuals and communities by 2030. This means that people can access necessary services including oral health services, without financial burden.

Under this vision, we have 6 strategic objectives, including oral health governance, oral health promotion and disease prevention, health workforce, oral health care, oral health information system, and oral health research agenda. All are for trying to integrate oral diseases as a part of the NCDs prevention and control. Under each strategic objective, we also proposed actions for Member States, WHO, international partners, civil society organizations and the private sector. In total, we proposed 100 actions to implement the Global Oral Health Action Plan.



We have a monitoring framework to measure progress in the implementation of the Global Oral Health Action Plan. We regularly measure the 11 global targets. We have 2 overarching targets, and 9 targets related to each of the 6 strategic objectives that I mentioned on the previous slide.

Global oral health targets and current baseline by strategic objectives

Strategic objective	Global target	Global [Baseline 2024]	WHO African Region [Baseline 2024]
Over-arching	Universal health coverage for oral health A.1. By 2030, 80% of the global population is entitled to essential oral health care services	23%[1]	17%[1]
	Reduced oral disease burden B.1. By 2030, the combined global prevalence of the main oral diseases and conditions over the life course shows a relative reduction of 10%	47%[2]	42%[2]
Oral health governance	National leadership for oral health 1.1. By 2030, 80% of countries have an operational national oral health policy, strategy or action plan and dedicated staff for oral health at the health ministry or other national governmental health agency	28%[3]	30%[3]
	Environmentally sound oral health care 1.2. By 2030, 90% of countries have implemented measures to phase down the use of dental amalgam as stipulated in the Minamata Convention on Mercury or have phased it out	31%[4]	13%[4]
Oral health promotion and oral disease prevention	Policies to reduce intake of free sugars 2.1. By 2030, 50% of countries implement policy measures aiming to reduce intake of free sugars	21%[5]	4%[5]
	Optimal fluoride delivery for population oral health 2.2. By 2030, 50% of countries have national guidance on optimal fluoride delivery for oral health of the population	29%[3]	9%[3]

World Health Organization African Region

7

The baseline status report on the global oral health targets has just been published. I would like to share with you the baseline situation both globally and in the African Region.

As I mentioned earlier, we have 2 overarching targets and 9 targets that are linked to 6 strategic objectives.

One of the overarching targets is “By 2030, 80% of the global population is entitled to essential oral health care services”. What does that mean? It means whether the global population is entitled to essential oral health care services as part of the universal health benefit package in a country supported by the largest government financing scheme. The baseline is 23 % of the global population, and 17% of the African Region.

In terms of the oral disease burden, we have another overarching target, “By 2030, the combined global prevalence of the main oral diseases and conditions over the life course shows a relative reduction of 10%”. The baseline for the oral disease prevalence is 47 % of the global population and 42% of the African Region in 2021.

We also have targets related to oral health governance, such as national leadership and environmentally sound oral health care, linked to the implementation of measures to phase out the use of dental amalgam in line with the Minamata Convention.

On oral health promotion and oral disease prevention, we have policies to reduce the intake of free sugars and optimize the delivery of fluoride for the oral health of the population.

Global oral health targets and current baseline by strategic objectives

Strategic objective	Global target	Global [Baseline 2023]	WHO African Region [Baseline 2023]
Health workforce	Innovative workforce model for oral health 3.1. By 2030, 50% of countries have an operational national health workforce policy, plan or strategy that includes a workforce trained to respond to population oral health needs	[Data not available]	[Data not available]
Oral health care	Integration of oral health into primary care 4.1. By 2030, 80% of countries have oral health care services generally available in primary care facilities	81%[3]	53%[3]
	Availability of essential dental medicines 4.2. By 2030, 50% of countries include dental preparations listed in the WHO Model Lists of Essential Medicines in their national essential medicines lists	1%[3]	2%[3]
Oral health information systems	Monitoring implementation 5.1. By 2030, 80% of countries have a monitoring framework for the national oral health policy, strategy or action plan	6%[3]	15%[3]
Oral health research agendas	Research in the public interest 6.1. By 2030, 50% of countries have a national oral health research agenda focused on public health and population-based interventions	18%[3]	11%[3]

References:
1: WHO Health Technology Assessment and Health Benefit Package Survey; 2021
2: Global Burden of Disease Collaborative Network. GBD 2021. Seattle: IHME; 2021
3: WHO NCD Country Capacity Survey, NCD CCS; 2023
4: WHO and Minamata Convention Secretariat, 2023; Minamata Convention Secretariat, 2021; WHO Informal Consultation, 2021; COP4 submissions to the Minamata Convention on Mercury, 2021
5: WHO Global database on the Implementation of Food and Nutrition Action, 2023; WHO NCD Country Capacity Survey, NCD CCS, 2023

World Health Organization African Region

8

Another target you can see is the health workforce and the oral health care, especially because today's webinar is linked to essential dental medicines, whether by 2030, 50% of countries include dental preparations listed in the WHO Model Lists of Essential Medicines in their National Essential Medicines List.

As you see that among 11 indicators, this indicator is the least achieved target, for example, 1% of the countries globally and 2% in the African Region, those are far to achieve this indicator.

Therefore, we need to accelerate the implementation of not only this indicator, but all indicators and actions.

Model Lists of Essential Medicines and AWaRe Book– 2023 update

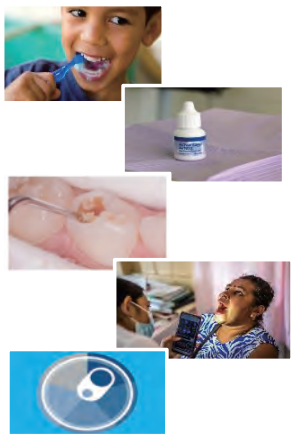
30. DENTAL MEDICINES AND PREPARATIONS	
fluoride	**Gel:** containing 2500 to 12 500 ppm fluoride (any type). **Mouthrinse:** containing 230 to 900 ppm fluoride (any type). **Toothpaste, cream or gel:** containing 1000 to 1500 ppm fluoride (any type). **Varnish:** containing 22 500 ppm fluoride (any type).
glass ionomer cement	**Single-use capsules:** 0.4 g powder + 0.09 mL liquid. **Multi-use bottle:** powder + liquid. Powder (fluoro-alumino-silicate glass) contains: 25-50% silicate, 20-40% aluminium oxide, 1-20% fluoride, 15-40% metal oxide, 0-15% phosphate, remainder are polyacrylic acid powder and metals in minimal quantities. Liquid (aqueous) contains: 7-25% polybasic carboxylic acid, 45-60% polyacrylic acid.
resin-based composite (low-viscosity)*	**Single-use applicator or multi-use bottle** *of any type for use as dental sealant
resin-based composite (high-viscosity)*	**Single-use capsule or multi-use syringe** *of any type for use as dental filling material
silver diamine fluoride	**Solution:** 38% w/v.

World Health Organization African Region

I just talked about the Model Lists of Essential Medicines, so I also would like to talk about this point. WHO, in collaboration with experts, has developed the WHO Model Lists of Essential Medicines (EML). In 2021, the new category of dental medicines and preparations was included in the EML for the first time. This figure shows the new one which was adopted in 2023, including fluoride toothpaste, glass ionomer cement, resin-based composite, silver diamine fluoride. You can download this Model Lists of Essential Medicines by scanning this QR code.

WHO menu of policy options and cost-effective interventions to prevent and control oral diseases

- Implement a population-wide mass media campaign to promote the use of **toothpaste with a fluoride concentration of 1000–1500 ppm**
- Apply **silver diamine fluoride** for arresting dental caries and its progression
- Use **glass ionomer cement** as a filling material for cavities, after removal of decayed tooth tissue using hand instruments
- **Early detection programme of oral cancer** including, as appropriate, targeted screening programme for high-risk groups in selected settings, according to disease burden and health system capacities, linked with comprehensive cancer management
- **Taxation on sugar-sweetened beverages** as part of fiscal policies for healthy diets



World Health Organization African Region

WHO has also produced a menu of options and cost-effective interventions to prevent and control oral diseases. This was the first set of the cost-effective interventions for oral diseases.

As you can see, the 3 out of the 5 interventions are linked with the essential dental preparation, such as the implementation of a population-wide mass media campaign to promote the use of toothpaste with a fluoride concentration of 1,000 to 1,500 ppm, the application of silver diamine fluoride for arresting dental caries and its progression, and the use of glass ionomer cement as a filling material for cavities, after removal of decayed tooth tissue using hand instruments.

Therefore, it is also important for the country to consider modifying the UHC benefit package in order to align with the WHO cost-effective intervention package.

WHO Global Oral Health Meeting: *Universal Health Coverage for Oral Health by 2030*

26-29 November 2024, Thailand

Overall objectives

- To reaffirm political commitment by Member States based on the **Resolution on Oral Health in 2021.**
- To accelerate and scale up national efforts to prevent and control NCDs with a focus on oral diseases to achieve **UHC for all by 2030.**
- To contribute to the preparatory process leading to the **fourth High-level Meeting on NCDs in 2025.**

Host : Government of the Kingdom of Thailand

Venue: Centara Grand & Bangkok Convention Centre at CentralWorld, Bangkok, Thailand

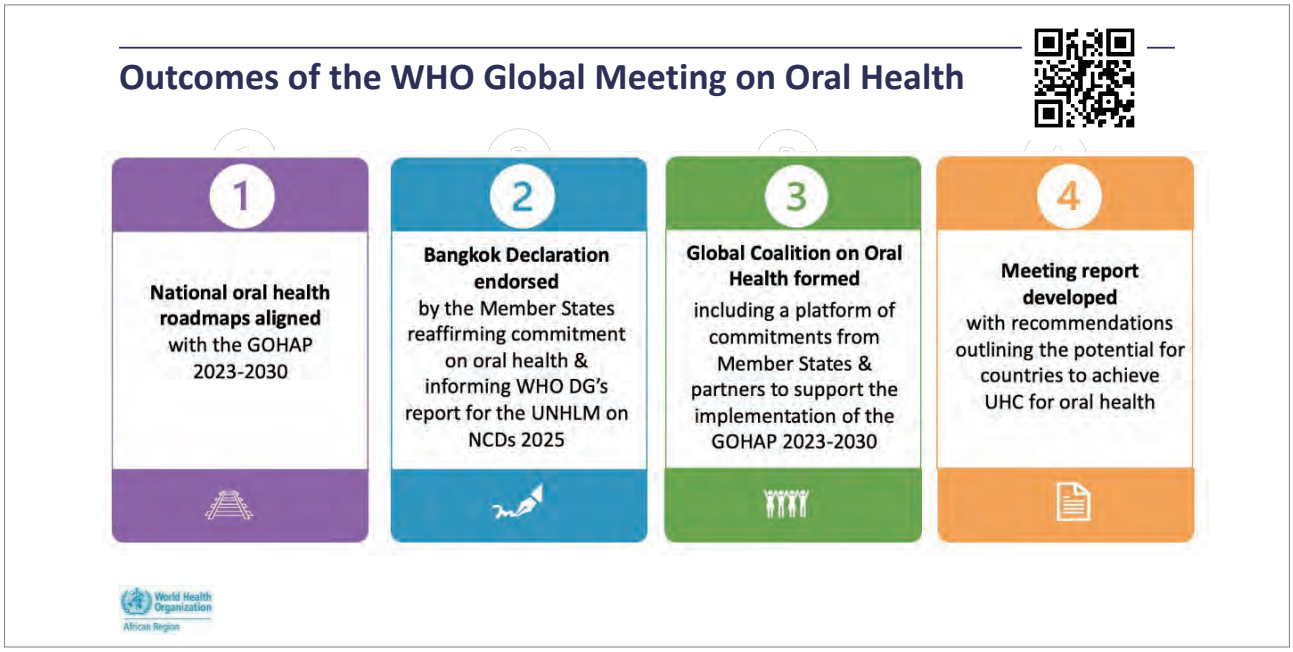
World Health Organization African Region

I would like to highlight the historic milestone in global oral health because last November, WHO organized the first-ever global oral health meeting in Bangkok, Thailand.

This meeting was held to reaffirm the political commitment of Member States based on the resolution on oral health in 2021, also to accelerate and scale up national efforts to prevent and control NCDs with a focus on oral diseases, in order to achieve UHC for all by 2030, and to contribute to the preparatory process leading to the Fourth UN High-Level Meeting on NCDs.

This will take place in September this year, and will bring together not only Ministers of Health, but also heads of delegates to discuss the NCDs agenda in order to prioritize it in the development agenda.

There are around 350 participants in this meeting, including 100 Member State delegates for both oral health and NCDs in the Ministry of Health, including 29 Member States in the African Region, and we also have 12 ministers attending, including the Minister of Health of the Comoros.

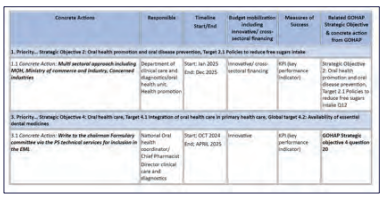


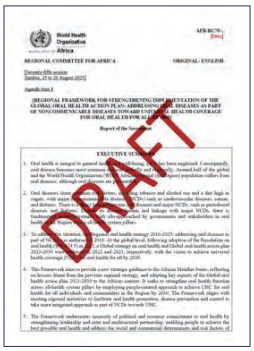
This is the outcome of the Global Oral Health Meeting. We have 4 outcomes. One is the National Oral Health Roadmap. Both the UHC and the oral health focal point came together to develop the national roadmap to implement the Global Oral Health Action Plan at the country level.

The second is the Bangkok Declaration, which was endorsed by participants to reform the commitment to oral health and try to integrate oral diseases as part of the outcome document of the UN High-Level Meeting on NCDs.

We have also established the Global Coalition on Oral Health, especially among the members. This will be the great platform for the knowledge sharing, advocacy, and communication to accelerate the implementation of the global action plan at the country-level. You can also download the Bangkok Declaration by scanning this QR code.

Implementation of the Global Oral Health Action Plan





Country level

- Roadmap

Regional level

- **Regional Framework for the Global Oral Health Action Plan** discussed during the Regional Committee for Africa in Zambia (Aug 2025)

World Health Organization African Region

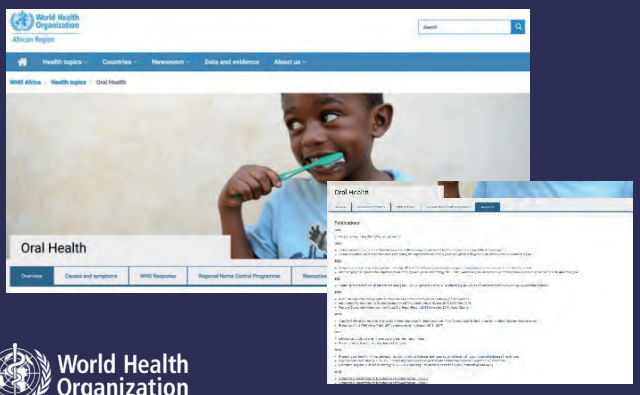
13

At the country level, since the countries have already developed a roadmap, they are starting to implement it. But at the regional level, there is an annual regional committee. This year, at the regional committee, we are going to propose a regional framework for the Global Oral Health Action Plan. This will be discussed at the regional committee, for Africa in Zambia in August this year. The Ministers of Health will discuss it and adapt it, and then it will be a guidance document at the regional level on oral health for 2030.

Thank you.

Thank you very much for your kind attention!

makinoy@who.int

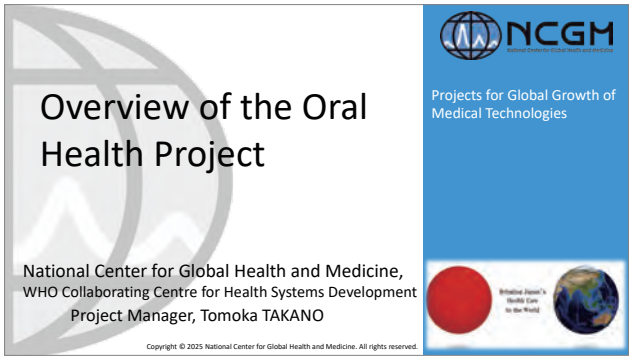


SCAN ME

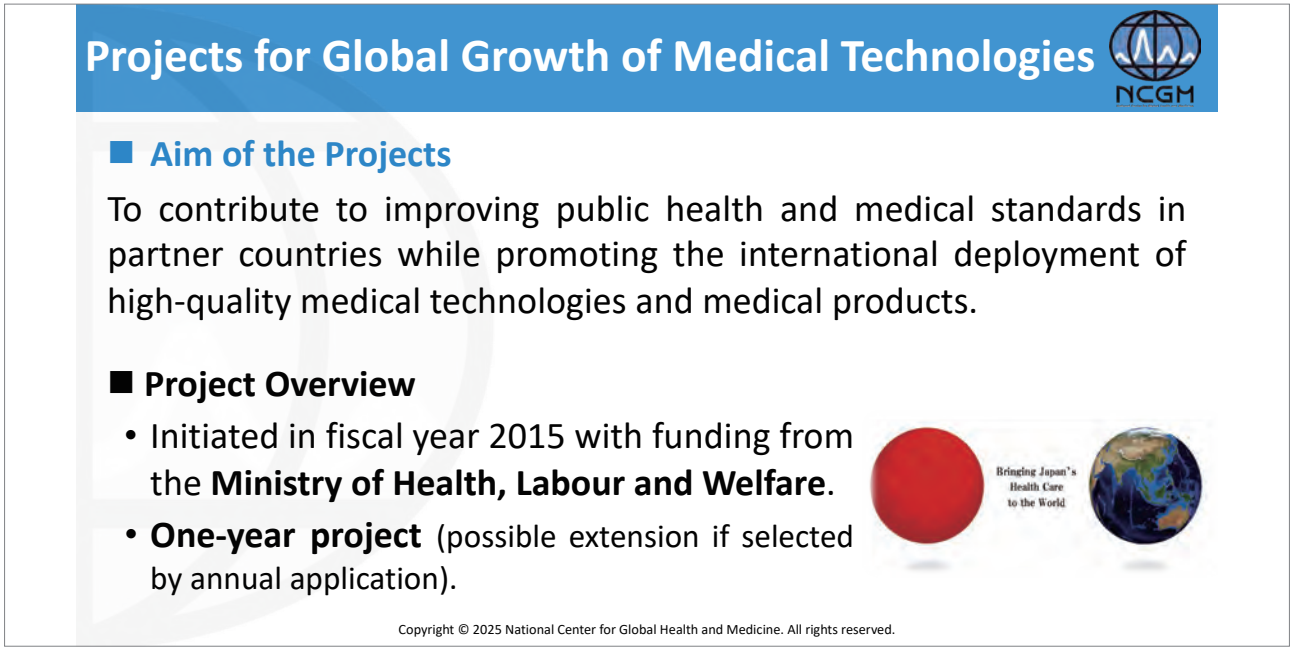
World Health Organization
African Region

2 Overview of the Oral Health Project
- Projects for Global Growth of Medical Technologies

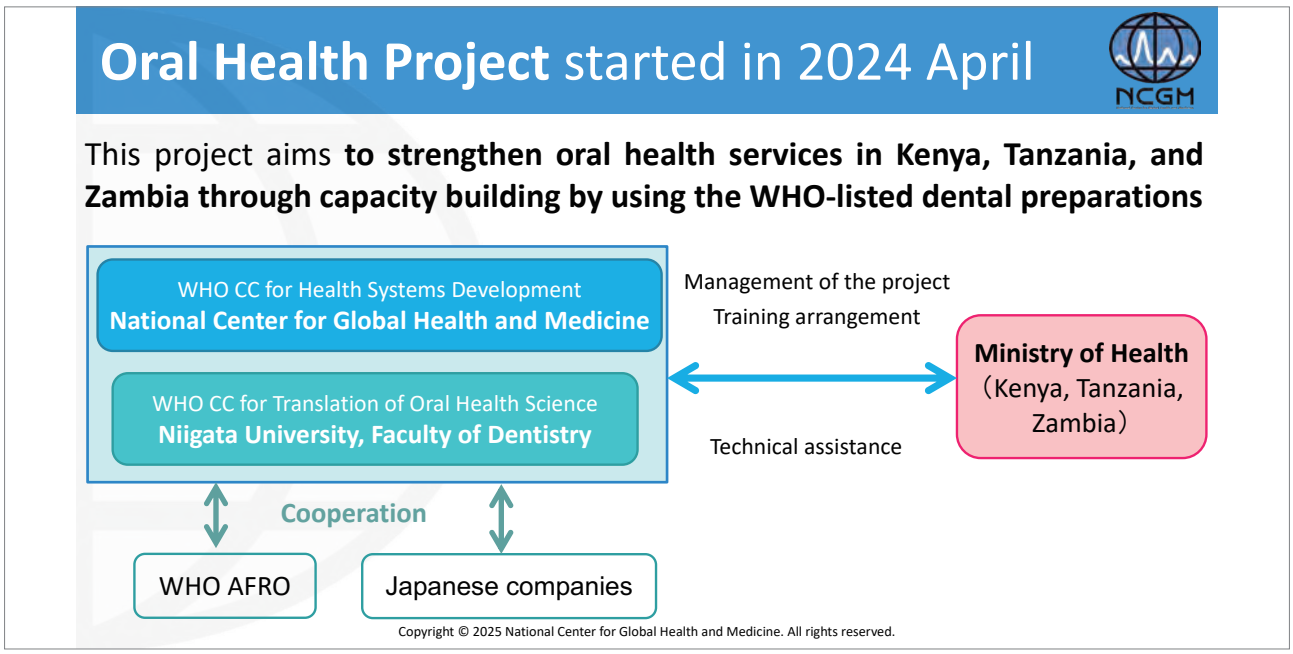
Tomoka Takano
Project Manager,
National Center for Global Health and Medicine, Japan



Tomoka Takano : My name is Tomoka Takano from the National Center for Global Health and Medicine (NCGM). I'm the project manager of the Oral Health Project. Today, I would like to present overview of this project.



This Oral Health Project is part of the Projects for Global Growth of Medical Technologies, which is funded by the Ministry of Health, Labor, and Welfare in Japan. This is a one-year project, and possible extension is selected by annual application.



As Dr. Makino explained, oral diseases are significant concern in many countries, including Africa. Recognizing this problem, we, the National Center for Global Health and Medicine, which is the WHO Collaborating Center for Health Systems Development, launched the Oral Health Project in April 2024. This project is in collaboration with Niigata University in Japan, which is the WHO Collaborating Center for Translation of Oral Health Science.

This project aims to strengthen oral health services in Kenya, Tanzania and Zambia through capacity building by using the WHO-listed dental preparations. NCGM manages this overall project, and Niigata University provides technical support. We also collaborate with WHO AFRO and various Japanese companies.

Let me now highlight three dental preparations that are key to this project. These products are included in the WHO Model Lists of Essential Medicines and are recognized for their cost-effectiveness in addressing major oral health challenges.

The first one is fluoride toothpaste, which is used primarily for caries prevention. The second one is Sliver Diamine Fluoride (SDF), which is effective in arresting the progression of dental caries. The third one is Glass Ionomer Cement (GIC), which is utilized for restorative caries treatment. These three products are on the WHO Essential Medicines List (EML), and interventions using them are part of the first step of the WHO Best Buy intervention package on oral health. By focusing on these preparations, we aim to enhance oral health outcomes in target countries.

As part of the project, we had the opportunity to invite Chief Dental Officers and Chief Pharmacists from three countries to Japan. During their visits, they participated in a series of lectures and practical sessions, as you can see in the photo, focusing on the use and management of fluoride toothpaste, SDF and GIC.

The programs also included lectures and site visits to understand the Japanese health system and its ongoing activities. This picture shows a visit to a kindergarten in Japan. Through these lectures and interactive experiences, the delegates from three countries deepened their understanding of these key dental preparations.

Additionally, a workshop was organized on the access and delivery of dental preparations, which ultimately contributed to the development of each country's action plan for improving oral health services.

Follow-up visit in January 2025

Purposes

- To understand the current situation of the oral health system
- To follow up on the implementation of the action plan developed in Japan
- To exchange views with stakeholders

Places visited

- Ministry of Health
- Health facilities, including primary care level
- Regulatory authorities
- Dental associations
- Pharmaceutical and toothpaste companies etc

In January 2025, we also organized a follow-up visit to understand the current situation of the oral health system and to follow up on the implementation of the action plan developed in Japan and exchanged views with key stakeholders. During the visit, we had the opportunity to meet and engage in valuable discussions with the Ministry of Health, along with other key stakeholders, as you can see in this photo.

Outcomes of Oral Health Project

NCGM

1. **Improved knowledge** of dental caries prevention, arresting its progression, and restorative treatment using fluoride toothpaste, SDF, and GIC among chief dental officers and chief pharmacists in three countries.
2. **Developed an action plan** to improve access to oral health services by strengthening the availability and accessibility of WHO-listed dental preparations in three countries.
3. **Implemented the action plan in three countries**, including the integration of WHO-listed dental preparations into the national EML.

7

I would like to highlight the key outcomes. As I mentioned earlier, we worked to improve knowledge and develop an action plan for each country. The plan has now been implemented in all three countries, and each country is making progress towards integrating WHO-listed dental preparations into national EMLs. Later, representatives from each country will share more details about their specific situations and experiences.

Thank you very much for your kind attention.

3-1 Implementation Status of Kenya's Action Plan

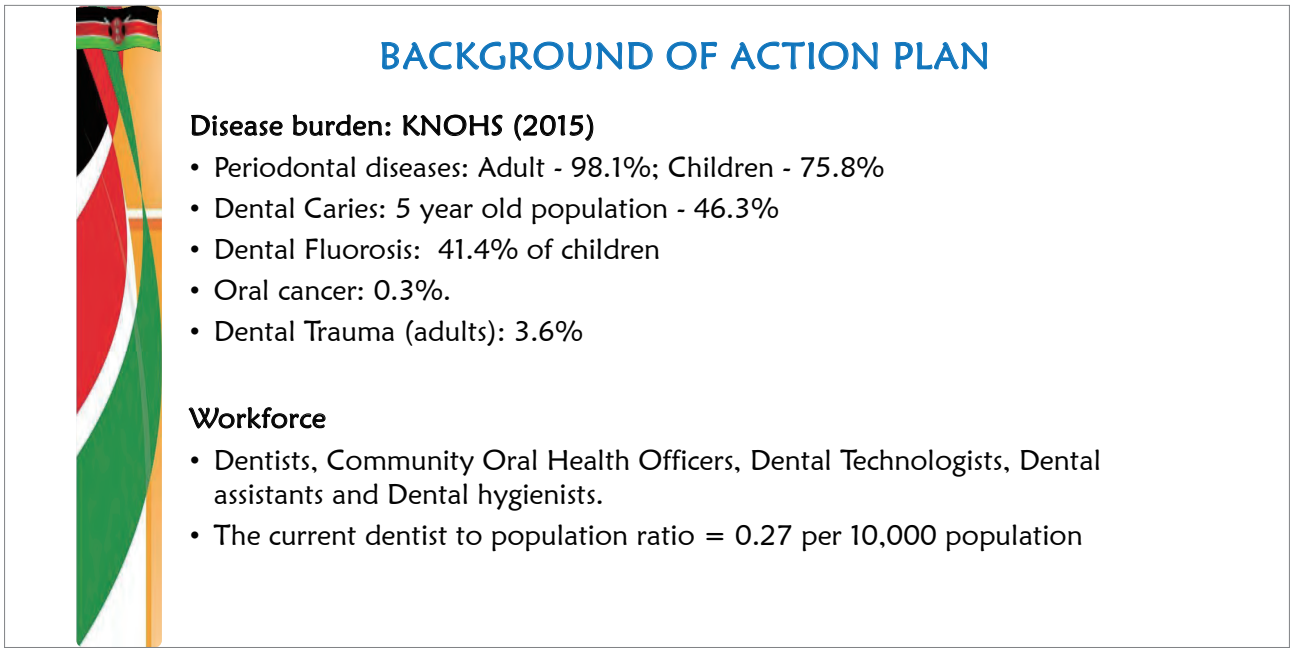
Tom Menge

Head, Directorate of Health Products and Technologies, Ministry of Health, Kenya

Penny Muange

Division Head, Oral Health, Eye Health & Hearing Care, Ministry of Health, Kenya

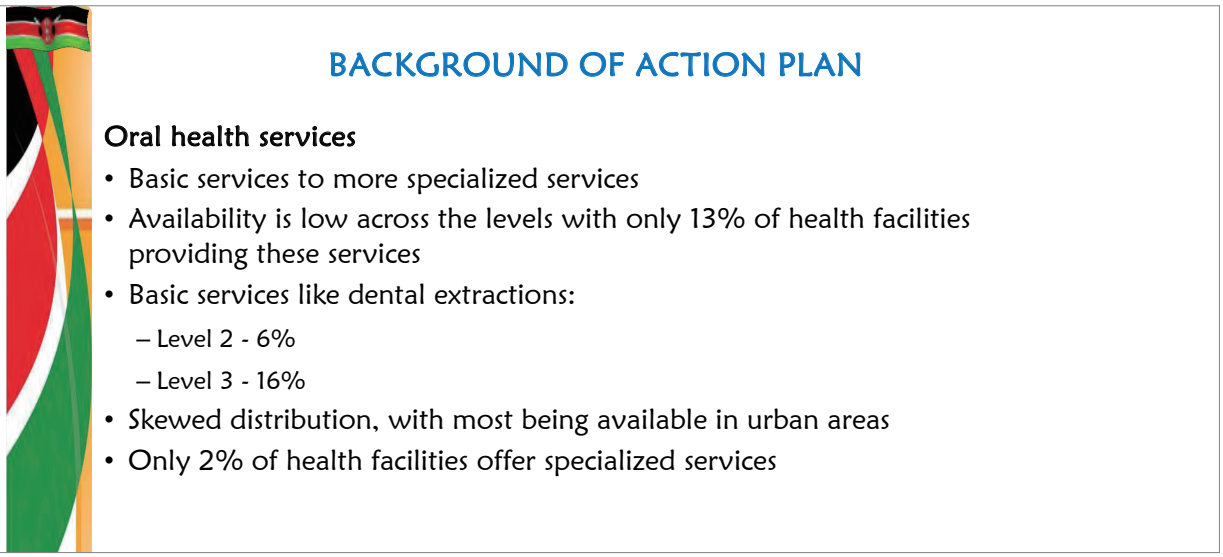
Penny Muange : Hello everyone. Thank you for this opportunity to share Kenya's Action Plan for the Oral Health Project where we are in terms of implementation. This presentation was prepared by Dr. Tom Menge who is the Director of Health Products and Technologies, and myself from the Division Head of Oral Health, Eye Health and Hearing Care at the Ministry of Health, Kenya.



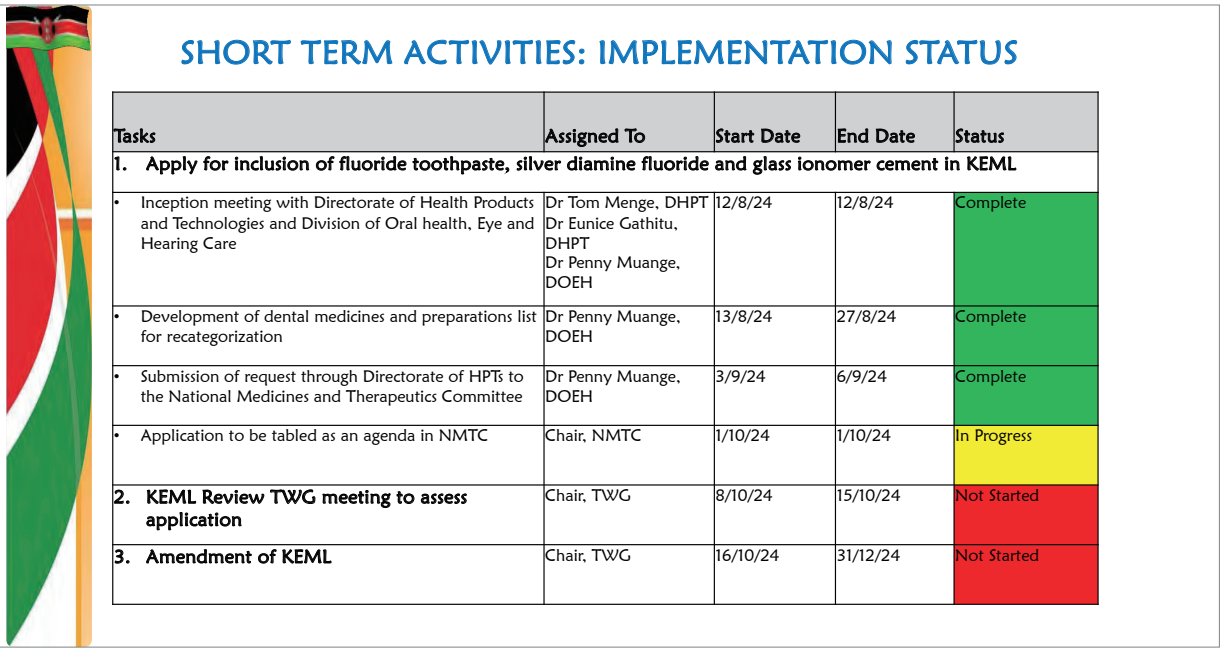
First of all, I would like to give some background on the situation in Kenya, in terms of the disease patterns. The last national oral health survey in Kenya was conducted in 2015, and it showed a fairly high burden of oral disease.

Basically, periodontal diseases affected the entire adult population. Dental caries affected 46.3% of the five-year-old population. Dental fluorosis affected 41.4% of children. Oral cancer affected 0.3%, and dental trauma affected 3.6% of adults.

In terms of the workforce, the situation mirrors what is happening in many other African countries, with the current ratio of dentists being 0.27 per 10,000 population. In Kenya, we have three main professionals, which are the dentists, the community oral health officers, and the dental technologists. And the other two are the dental assistants and the dental hygienists, who are beginning to be trained.



Oral health services range from basic services to more specialized services, and availability is low at all the levels, with only 13% of health facilities providing these services. If we look at the different levels of care in Kenya, it goes from Level 1 to Level 6. Level 1 is community health, and all the way up to Level 6 which is referral hospitals. If we look at the levels of primary health care, at Level 2 and Level 3, the number of facilities that actually offer these services is quite small. There is also a skewed distribution, with most of these services being offered in urban areas. When it comes to specialized services, only 2% of health facilities provide these services.



Tasks	Assigned To	Start Date	End Date	Status
1. Apply for inclusion of fluoride toothpaste, silver diamine fluoride and glass ionomer cement in KEML				
• Inception meeting with Directorate of Health Products and Technologies and Division of Oral health, Eye and Hearing Care	Dr Tom Menge, DHPT Dr Eunice Gathitu, DHPT Dr Penny Muange, DOEH	12/8/24	12/8/24	Complete
• Development of dental medicines and preparations list for recategorization	Dr Penny Muange, DOEH	13/8/24	27/8/24	Complete
• Submission of request through Directorate of HPTs to the National Medicines and Therapeutics Committee	Dr Penny Muange, DOEH	3/9/24	6/9/24	Complete
• Application to be tabled as an agenda in NMTC	Chair, NMTC	1/10/24	1/10/24	In Progress
2. KEML Review TWG meeting to assess application	Chair, TWG	8/10/24	15/10/24	Not Started
3. Amendment of KEML	Chair, TWG	16/10/24	31/12/24	Not Started

I would like to mention something that is not on the slide. Kenya has the National Oral Health Policy 2022-2030 and the National Oral Health Strategy Plan 2022-2026. These two policy documents are aligned with the Global Strategy and Action Plan on Oral Health 2023-2030.

We will go straight to the implementation status and just give a little background. We have divided the Action Plan into short-term, mid-term, and long-term activities. So, I will focus on the short-term and the mid-term activities in terms of the implementation.

The first activity that we did was to apply for the inclusion of the three dental preparations that were mentioned earlier on the Kenya Essential Medicines List (KEML). You can see the various activities that were to be done under this task.

Three are complete. We had an inception meeting to discuss the inclusion. Then we developed a list for categorization and submitted the applications through the Directorate of Health Products and Technologies to the National Medicines and Therapeutics Committee. The application is still in progress, and I will mention it later. In terms of the amendment, you can see that it has not started yet, and I will explain why.

MID-TERM ACTIVITIES: IMPLEMENTATION STATUS

Tasks	Assigned To	Start Date	End Date	Status
1. Dissemination of amended KEML	Head, DHPT Head, Division of OEHC TWG KEML	1/3/2025	1/4/2025	Not Started
2. Build capacity of oral healthcare workers for integrated disease prevention and management				
• Training of dentists and COHOs on the use of SDF (CPD sessions at UoN Phantom Head Skills Lab)	Oral Health Section, MoH, KDA, UoN	20/8/24	20/8/24	Not Started
• Training of trainers on OH module for CHP curriculum	Oral Health Section, MoH; Community Health Division, MoH; Colgate-Palmolive	2/2025	6/2025	In Progress
• Training of MCH nurses on oral health	Oral Health Section, MoH; MCH Division, MoH; Colgate-Palmolive	4/2025	3/2026	In Progress
3. Institutionalize school health program for oral health to improve oral health in children				
• Develop a school health program for oral health for integration into the national school health program	Oral health Section, MoH; Division of School Health; Colgate-Palmolive	2/2025	8/2025	In Progress

In terms of the mid-term activities, the activities linked to the amended Kenya Essential Medicines List have not been started, but since we came to capacity building of oral healthcare workers, I have highlighted "oral" because we have added activities under that. These are not specific to oral health workers, but the whole idea is to integrate disease prevention and management.

As part of this, we proposed training programs for dentists and Community Oral Health Officers in the use of SDF through CPD sessions or hands-on sessions that would be led by the Kenya Dental Association, together with the training institutions. This has not started yet. We are still in talks with the association and one of the training institutions, the University of Nairobi, to start this.

However, the other two activities are in progress. These are the training of trainers in the oral health module of the community health promoter curriculum and the training of maternal and child health nurses in oral health. Each of these has a technical working group working on it in partnership with Colgate-Palmolive, which is supporting these two initiatives.

The third task is to institutionalize the school health program for oral health to improve the oral health of children. This is in progress and there is a technical working group working on this. The Colgate-Palmolive is partnering with us to make this a national program.

CHALLENGES AND OPPORTUNITIES

Challenges

1. Items not budgeted for in the current budgetary cycle (July 2024-June 2025)
2. SDF currently not availability in public facilities and teaching institutions
3. SDF use not part of the training curriculum for COHOs
4. Most counties procure their dental supplies from private suppliers instead of KEMSA

Opportunities

1. KEML is being reviewed in 2025; to include a more comprehensive list dental items
2. In-service hands-on training on use of dental preparations through dental schools and oral health professional associations

What are the challenges we face in implementing this Action Plan? I have just mentioned the four main items that we want to categorize. These are not budgeted in the current budgetary cycle, which runs from July 2024 to June 2025 for Kenya, to be stocked in the Kenya Medical Supplies Authority (KEMSA).

The second is that SDF is currently available in the country, mainly in the private sector, but not in the public facilities and teaching institutions. As much as it is taught, it is not readily available in these two areas.

The third one is that the training curriculum for the Community Oral Health Officers does not include the use of SDF, and we have just reviewed the training curriculum. It is reviewed every two to three years, so we are trying to see how we can include this prior to the review.

Fourth, most of the 47 counties actually procure their dental supplies from private suppliers rather than from the KEMSA. That brings in an issue because of decentralization.

In terms of opportunities, the KEML is being reviewed in this year, and it is thought that instead of adding an addendum that only includes these three materials, that this would be an opportunity to actually add a whole category of oral health to the current 35 categories and then have a more comprehensive list of dental preparations that will cover across preventive, promotive, and curative, and even include rehabilitative products.

Second, of course, there is the opportunity of in-service hands-on training in the use of these dental preparations, particularly SDF and glass ionomer cement through the dental schools and the professional association.

NEXT STEPS

1. Leverage on the upcoming KEML review in 2025.
2. Start in-service training of dentists and COHOs on the use of Silver Diamine Fluoride (SDF).
3. Finalize training of trainers on the Oral Health module for the Community Health Promoters (CHP) curriculum.
4. Continue developing a training manual on oral health for MCH nurses.
5. Continue developing a school health program for oral health for integration into the national school health program.
6. Encourage counties to procure dental supplies from KEMSA.

Our next steps here are just a few of them, so I will give the main ones. As I mentioned earlier, the review of the KEML is taking place this year, and we will leverage that not only to include these three materials, but to make sure that the KEML covers oral health holistically.

Second, we plan to start in-service training for the dentists and the Community Oral Health Officers in the use of SDF.

Third, we are finalizing the training of trainers on the Oral Health module for the Community Health Promoters curriculum.

Fourth, we are continuing to develop a training manual on oral health for maternal and child health nurses, including indicators and registers, which are tools to make sure that oral health is well captured.

Fifth, we continue to develop a school health program for oral health that will be integrated into the National School Health Program. As I mentioned earlier, this is in partnership with Colgate-Palmolive.

Sixth, we have meetings with the county leadership to encourage them to procure dental supplies from KEMSA, because the business model for KEMSA has changed from a push system to a fully demand-driven system so that KEMSA can stock these materials.

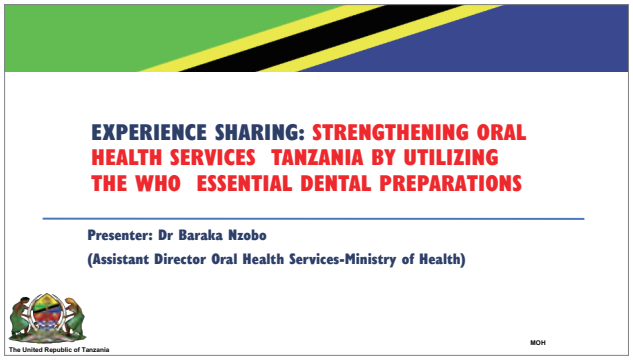
That was my last slide. Thank you very much.

ASANTE SANA!

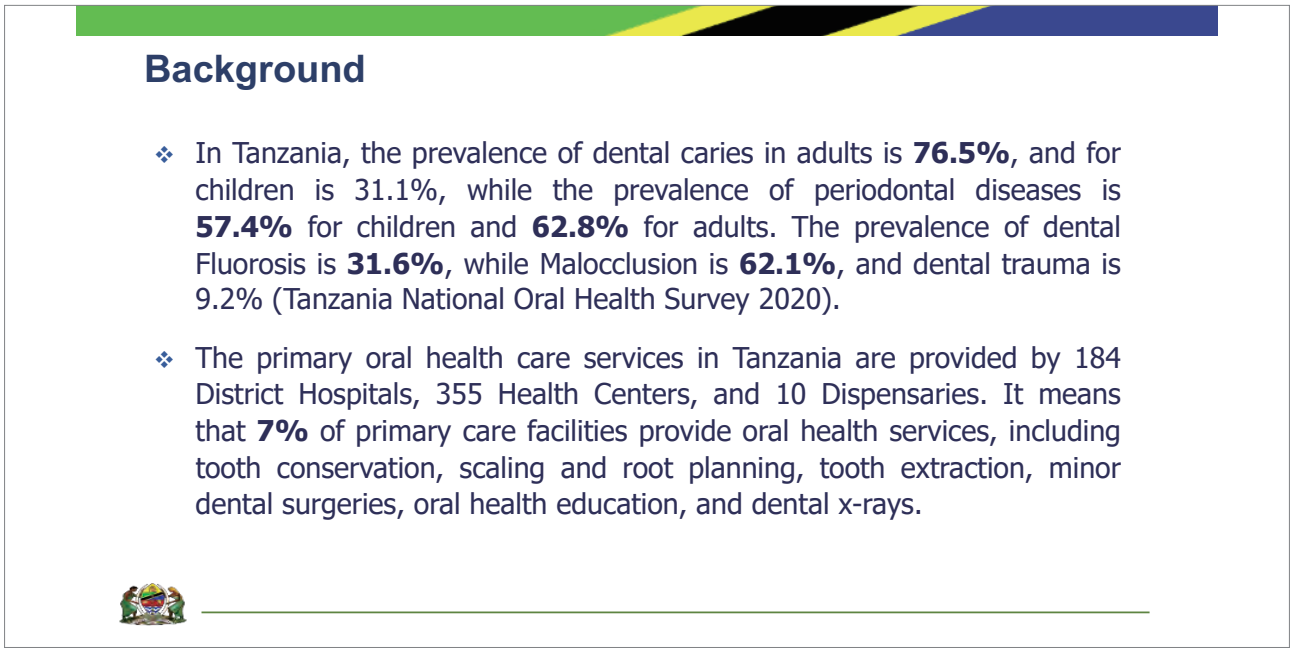
ありがとう ございます

3-2 Strengthening Oral Health Services in Tanzania by Utilizing the WHO Essential Denral Preparations

Baraka Nzobo
Assistant Director, Oral Health Services, Ministry of Health, Tanzania



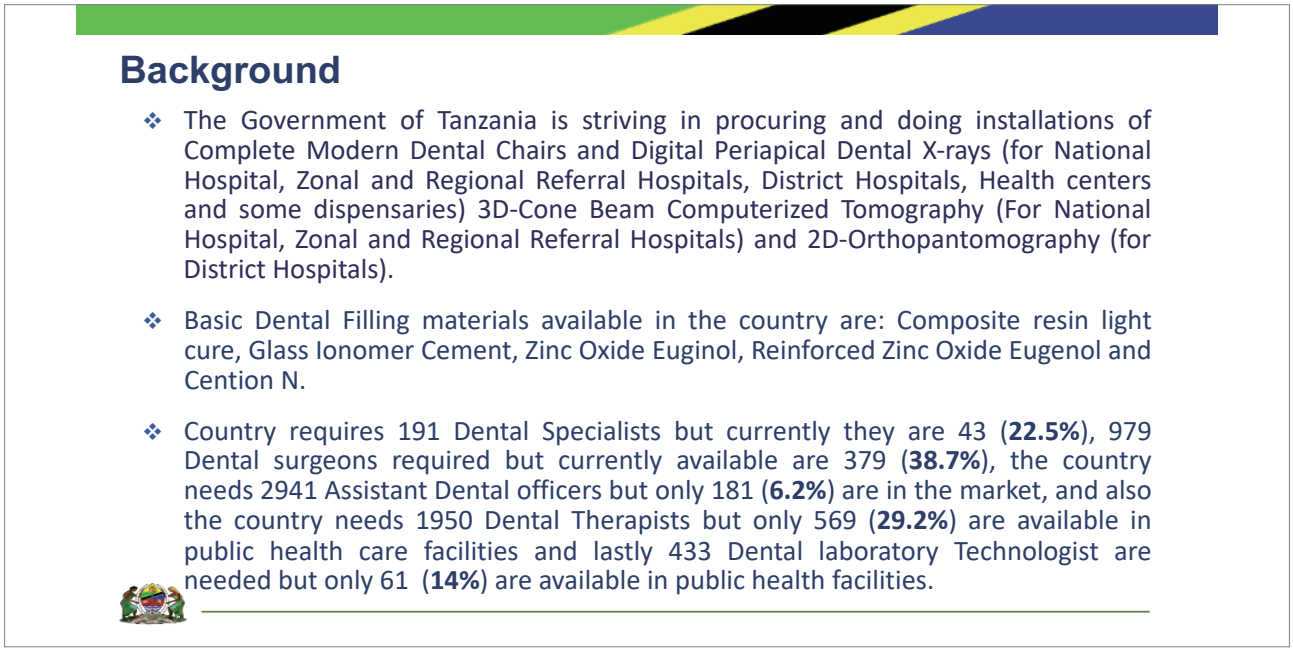
Baraka Nzobo : My name is Dr. Baraka Nzobo, assistant director of oral health service. We prepared this presentation together with our chief pharmacist, Mr. Daudi Msasi.



I will begin my presentation with the background of oral health services in Tanzania.

In Tanzania, the prevalence of dental caries is 76.5% in adults and 31.1% in children, while the prevalence of periodontal disease is 57.4% in children and 62.8% in adults. The country also suffers from dental fluorosis. The prevalence of dental fluorosis is 31.6%, while malocclusion is 62.1% and dental trauma is 9.2%. These data are according to the Tanzania National Oral Health Survey conducted in 2020.

Primary oral health care services in Tanzania are provided by 184 district hospitals, 355 health centers and 10 dispensaries. This means that 7% of primary care facilities provide oral health services, including tooth preservation, scaling and root planning, tooth extraction, minor dental surgery, oral health education, and dental x-rays.



Again, the Government of Tanzania continues to strive to procure and install complete modern dental chairs and Digital Periapical Dental X-Rays for the national hospital, zonal and regional referral hospitals, district hospitals, health centers and some dispensaries.

The government is also procuring 3D-Cone Beam Computerized Tomography (CBCT) for national, zonal and regional referral hospitals and 2D-Orthopantomography for district hospitals.

We have basic dental filling materials available in the country which are Composite Resin Light Cure, Glass Ionomer Cement, Zinc Oxide Euginol, Reinforced Zinc Oxide Eugenol and Cention N.

In terms of the workforce, the country requires, as for now, at least 191 dental specialists, but we have only 43 in the public facilities, which is about 2.5%. The country needs about 979 dental surgeons (DDS), but only 379 (38.7%) are currently available in the public health facilities. . The country also needs about 2,941 Assistant Dental Officers, but only 181 (6.2%) are available in the market. The country needs about 1,950 dental therapists, but only 569 (29.2%) are available in public health care facilities. Finally, the country needs about 433 dental laboratory technologists, but only 61 (14%) are available in public health facilities.

Implementation of Action Plan

1- Awareness of availability and use of Fluoridated toothpaste as essential medicine (1000ppmF for children below 6 years) and (1500ppmF for people aged 6-100+ years).

- The above WHO recommendation has been presented on the following platforms
  - ✓ Regional Dental Officers (RDOs) Meeting on October 2024. This meeting involved 150 oral health leaders from National, Regions and Districts and Health facilities
  - ✓ Non-communicable disease national commemoration where Directors of human resources and Directors of Policy and planning from 26 Ministries were given such education.

Now, let's look at the implementation of the Action Plan.

First, we have focused it to raise the awareness on the availability and use of fluoride toothpaste as an essential medicine as for WHO recommendation, 1,000ppm of fluoride for children under six years, and 1,500ppm of fluoride for people aged six years and above.

According to these recommendations of WHO, we have successfully conducted the Regional Dental Officers Meeting in October last year. This meeting involved 150 oral health leaders from the national, regional and district levels together with health facilities.

We also managed to have a national commemoration on NCDs, where directors of human resources and directors of policy and planning from 26 ministries were educated on the importance of using fluoride toothpaste as recommended by the WHO.

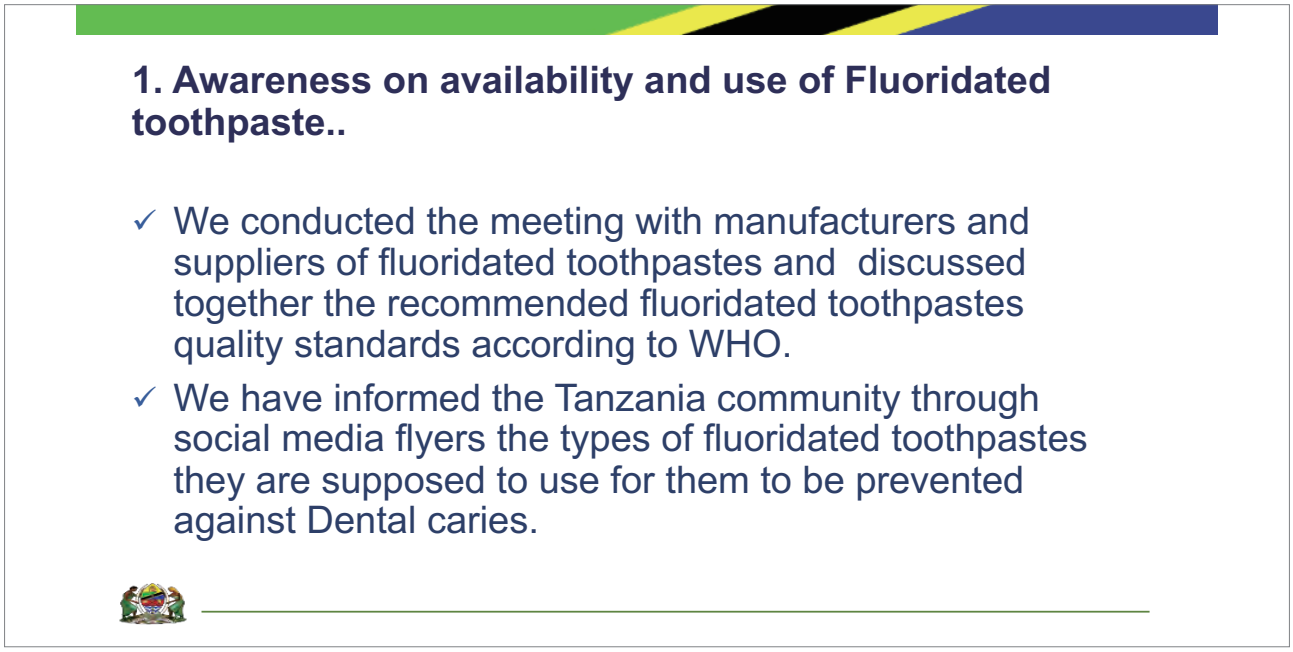
1. Awareness recommended fluoridated toothpaste….

- ✓ Tanzania Dental Association Annual General meeting where an online presentation was given to 250 Oral Health practitioners attended the meeting on December, 2024
  - Ministry of Health high rank officials, 26 Regional medical officers and 184 District Medical Officers, 7000 Medical officer Incharges to all public health facilities allover the country.
- ✓ Several engagement activities with some toothpaste dealers on the promotion and adherence of use of recommended fluoride level in the toothpaste.

We also had the Tanzania Dental Association Annual General Meeting where an online presentation was given to about 250 oral health practitioners who attended the meeting in December 2024. Again, the

Ministry of Health, high-rank officials, 26 regional medical officers, 184 district medical officers, and 7,000 medical officers in charge of all public health facilities all over the country attended. They received the awareness campaign on the use of fluoride toothpaste as recommended by the WHO.

We also had several engagement activities with some toothpaste dealers to promote and adhere to the use of recommended fluoride level in the toothpaste in the country.



We conducted the meeting with manufacturers and suppliers of fluoride toothpastes and discussed together the quality standards of fluoride toothpastes according to WHO. This meeting was held in January this year.

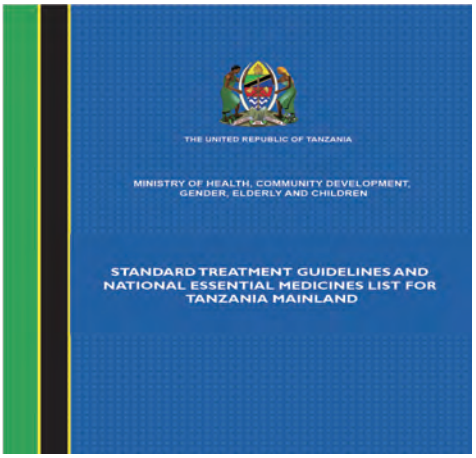
We have officially informed the Tanzanian community through various social media flyers about the types of fluoride toothpastes they should use to prevent against dental caries.

These are some of the social media flyers being circulated in the community in Tanzania, explaining recommended toothpastes and the amount of fluoride they should contain for children under two years

of age, children three to five years of age, and people six years of age and older. These are the official Ministry of Health flyers that continue to raise awareness in the Tanzanian community.

2.Review of Dental caries management..

- ✓ We are waiting the STG-NEMLIT review this year to change the Dental caries management protocol.
- ✓ Officially submitted to the Chief Medical Officer on September, 2024 the agenda of Fluoridated toothpastes inclusion in Essential Medicines List in the coming National Standard Treatment Guidelines & Essential Medicines List.



Now we are going to review the dental caries management. We are waiting for the Standard Treatment Guideline. The process is underway to review the Standard Treatment Guideline and the National Essential Medicines List this year to change the dental caries management protocol.

After changing the dental caries management protocol, where we will include the preventive part of the dental caries management on the use of fluoride toothpaste according to the WHO standard, the use of silver diamine fluoride will be included alongside glass ionomer cement.

We also officially submitted the agenda for the inclusion of fluoride toothpaste in the Standard Treatment Guideline and the National Essential Medicines List to the Chief Medical Officer in September last year, which was reviewed as shown in the picture on this slide.

3. Coaching and Mentorship to Dental Therapist

- ✓ Coaching and Mentorship was done by Dental Specialists and Senior Dental Surgeons to 549 Dental Therapists from 183 District Hospitals on the use of GIC and other dental filling materials on the management of dental caries. This was done from September-November, 2024.
- ✓ Next phase of Coaching and Mentorship to Dental Therapists will be conducted from April-June, 2025.

Another activity that we have already done last year is a coaching and mentoring program by the dental specialists and the senior dental surgeons to 549 dental therapists from 183 district hospitals on the use of the glass ionomer cement and other dental filling materials on the management of dental clinics. As I said, this was done from September to November 2024. The next phase of the coaching and mentoring program for the dental therapists will be conducted from April to June 2025.

I will talk about the challenges and the opportunities.

In terms of the challenges we face in the country, we have a few dental schools in the country to produce DDS graduates. We have only 2 universities, the Muhimbili University and the University of Dar es Salaam, that have the dental schools for the DDS program. It is a very big challenge. We are striving to open other dental schools from other medical universities.

We also face the challenges of low awareness in the community about the importance of tooth conservation and lack of adequate funds to run several dental outreach programs.

However, we have opportunities in the country with the availability of 10 dental therapist training institutions and the government's regular recruitment of dental therapists in public health facilities.

We also have the availability of modern dental equipment, instruments and machines at the primary health care level, so that most of the Tanzanians are treated with the use of SDF and GIC and the other, fluoride toothpaste.

NEXT STEP

- Review of National Essential Medicines lists in National Standard Treatment Guidelines to include SDF, GIC, and recommended Fluoridated toothpaste
- Meeting with National and International Dental companies to motivate them in importation of SDF,GIC and other Dental materials during TANZANIA DENTAL EXPO 2025 (30th -31st May, 2025) in DSM-Tanzania
- Follow-up meeting with Tanzania Bureau of Standards (TBS) on monitoring of the toothpaste dealers to adhere to the WHO recommended fluoridated toothpaste.

As a next step, we are now going to have the review of the Standard Treatment Guidelines and the National Essential Medicines List to include SDF, GIC and recommended fluoride toothpaste.

We will have the meeting with local and international dental companies to motivate them to import SDF, GIC and other dental materials during the Tanzania Dental Expo 2025 to be held on May 30-31 in Dar es Salaam, Tanzania.

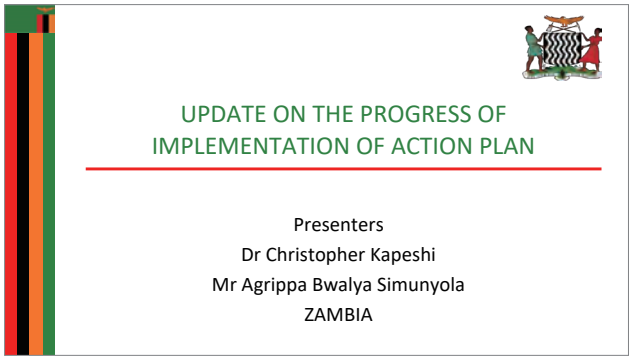
We also have a follow-up meeting with the Tanzania Bureau of Standards (TBS) on the monitoring of the toothpaste dealers to adhere to the WHO recommended fluoride toothpaste.

That was the last slide. Thank you.

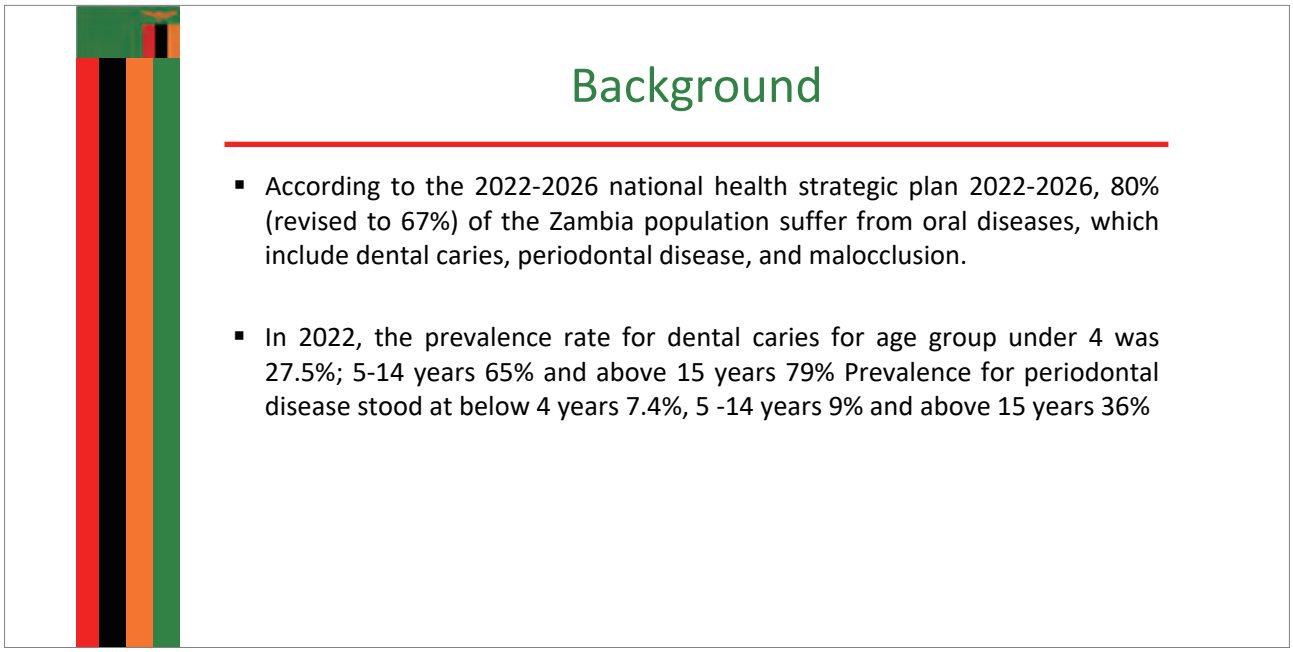
Asanteni

3-3 Update on the Progress of Implementation of Action Plan

Christopher Kapeshi
Chief Dental Officer, Ministry of Health, Zambia
Agrippa Bwalya Simunyola
Chief Pharmacist, Ministry of Health, Zambia

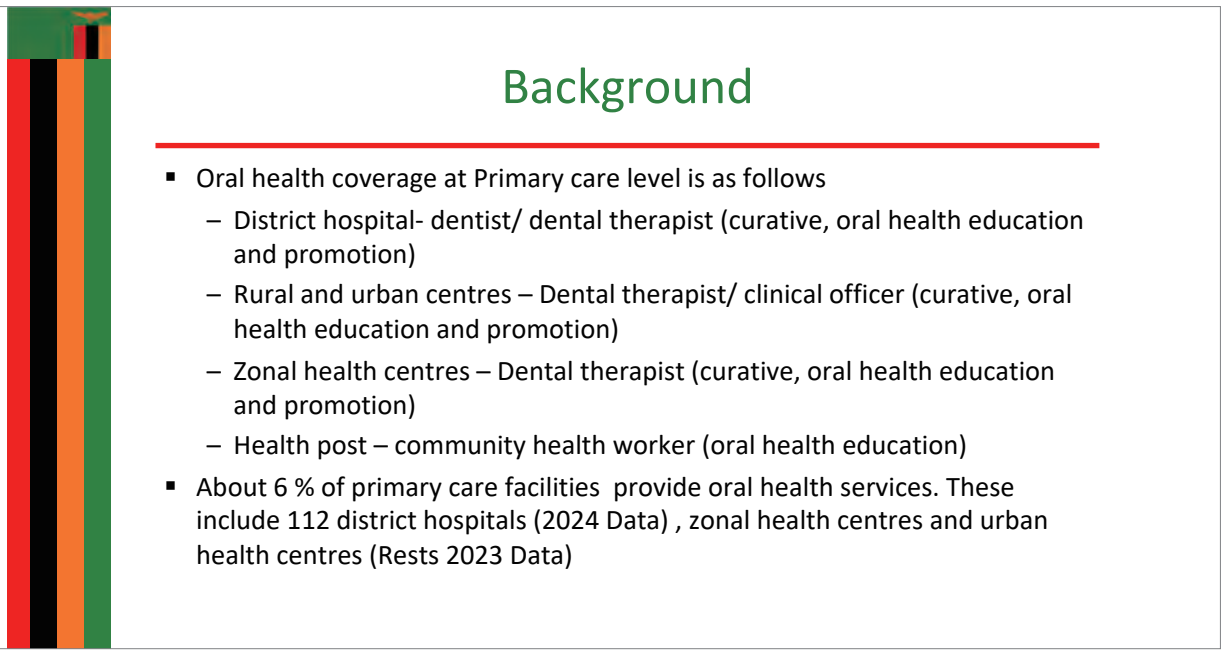


Christopher Kapeshi : Thank you for the opportunity to make a presentation. This presentation was prepared by myself, Dr. Kapeshi and Mr. Agrippa Bwalya Simunyola from Zambia, and we are going to give an update on the progress of the implementation of the Action Plan.



According to the national health strategic plan 2022-2026, 80%, now revised to 67%, of the Zambian population suffers from all types of oral diseases, including dental caries, periodontal disease and malocclusion.

In 2022, the prevalence rate of dental caries was 27.5% in the age group under 4 years, 65% in the age group 5-14 years, and 79% in the age group over 15 years. The prevalence of periodontal disease was 7.4% in the age group under 4 years, 9% in the age group 5-14 years, and 36% in the age group over 15 years.

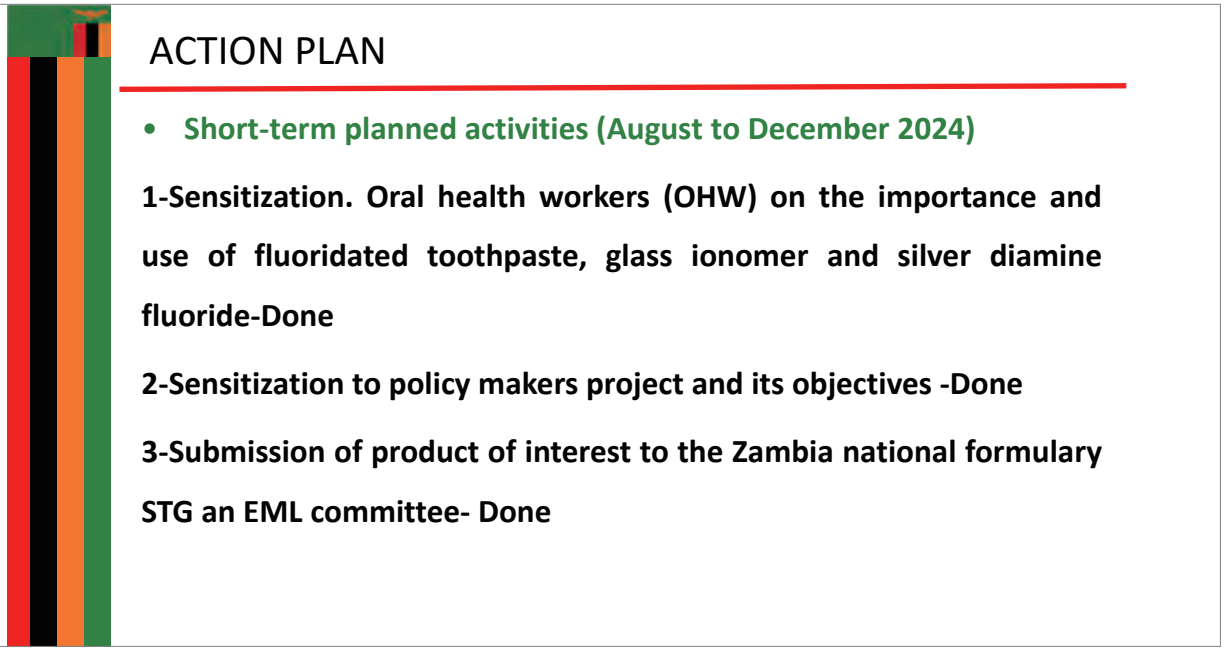


Now, this is how we are arranged in terms of primary health care. We have the district hospitals which are staffed by dentists, dental therapists who provide the curative oral health education and promotion, dental technologists and dental assistants.

The next level is what we call rural and urban centers. These rural and urban centers are staffed by dental therapists, general clinical officers who do mostly curative oral health education and promotion.

Then we have zonal health centers. The zonal health centers are centers that serve for the rural health centers. They are larger than the others and have dental therapists and dental assistants who work in curative oral health education and promotion.

At the community level, we have health posts. We have community health workers who are primarily responsible for oral health education. Our system is that we want to take it from the bottom to the top of the communities, and we link the health posts to the zonal centers, to the rural and urban centers, to the district centers. About 6 % of the primary health care facilities, including 112 district hospitals (2024 data), zonal health centers and rural and urban centers (2023 data), provide oral health services.

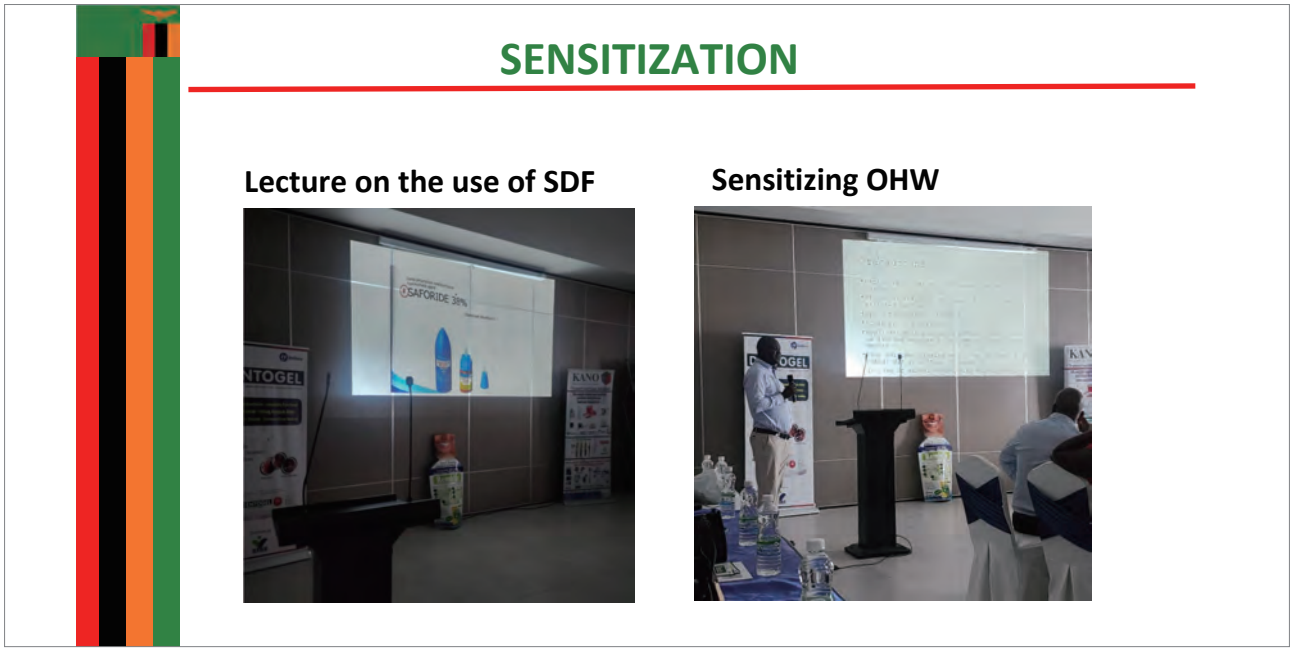


Now let's turn to our short-term action plan. For Zambia, we planned from August to December 2024 to sensitize oral health workers on the importance and use of fluoride toothpaste, glass ionomer cement, and silver diamine fluoride. That was done.

Then we did the sensitization for the policy makers about the projects and its objective. This was very important for the policy makers to understand what the project was about and how it would help and change the status of oral health in Zambia. This was done.

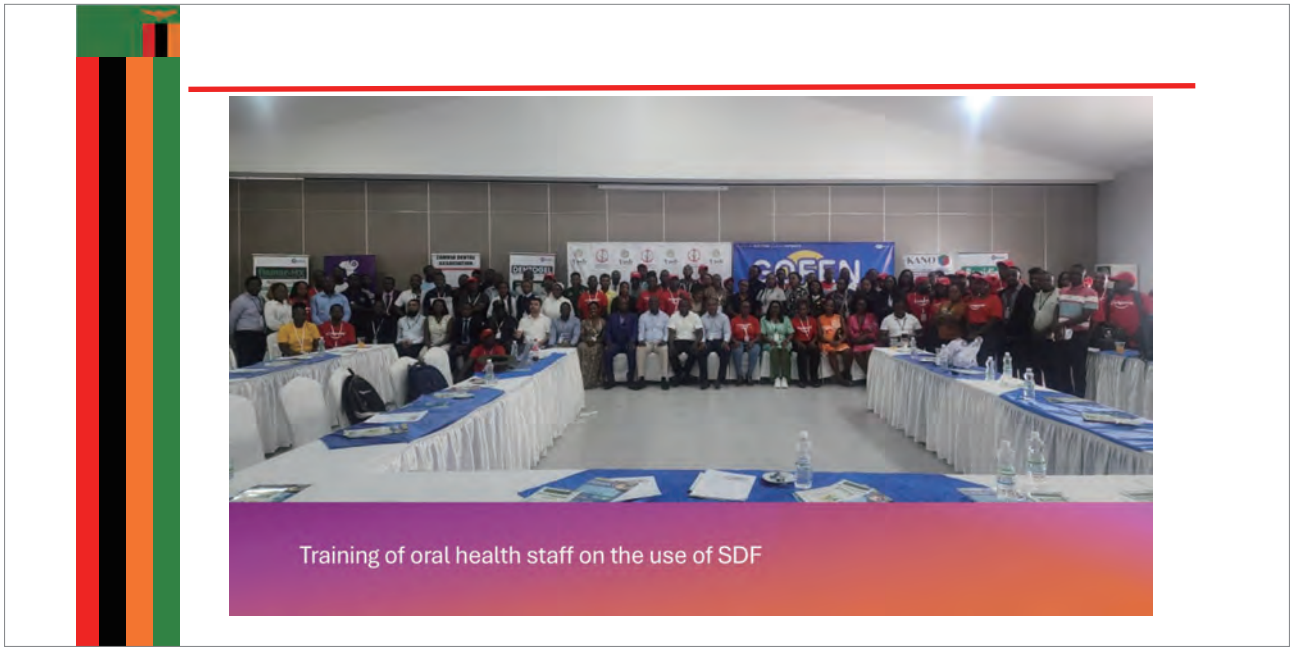
Submission of products of interest to the Zambia National Formulary to be included in the STG and EML has been done, and the committee is yet to be set because we are yet to be called.

This is a picture of a meeting with senior management to explain the importance of the project and how it will change the face of the oral health in Zambia.

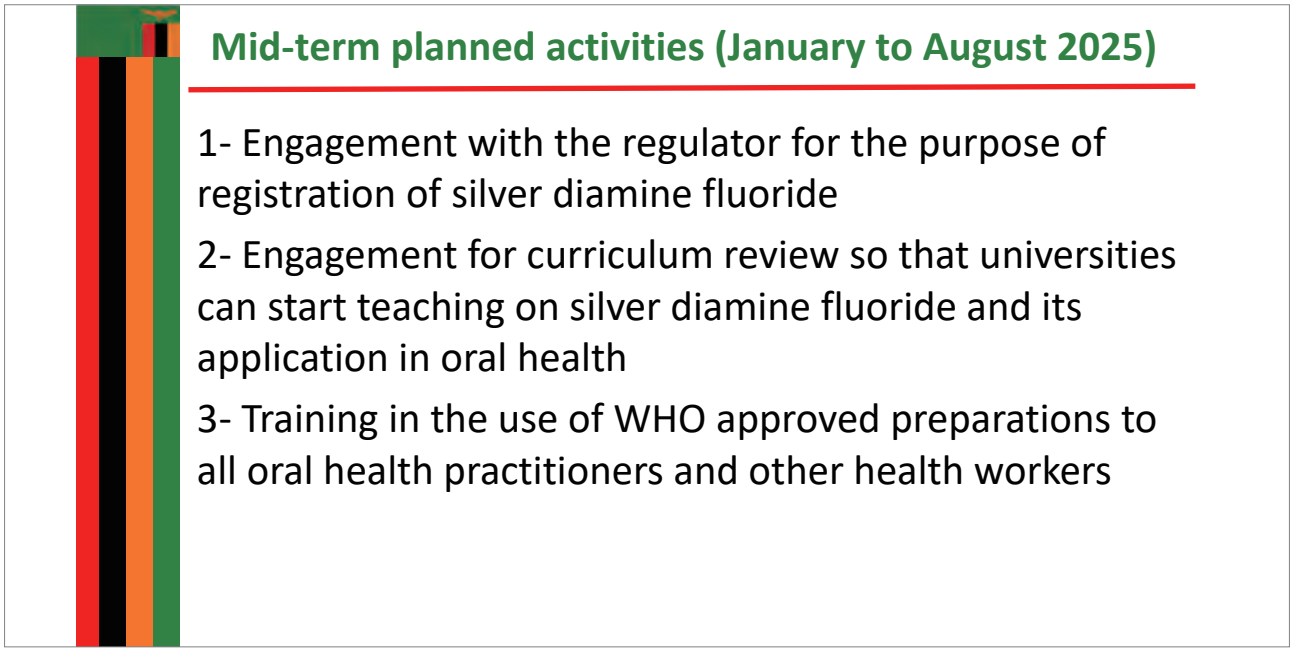


These pictures were taken during the sensitization in October last year where I gave a lecture with my colleague, Mr. Simunyola, on the use of SDF to sensitize oral health workers at the Dental Congress. I thank

Professor Ogawa for giving us the sample so that we could show the oral health workers what it looks like, and feel it, and know what it is. Thank you very much.



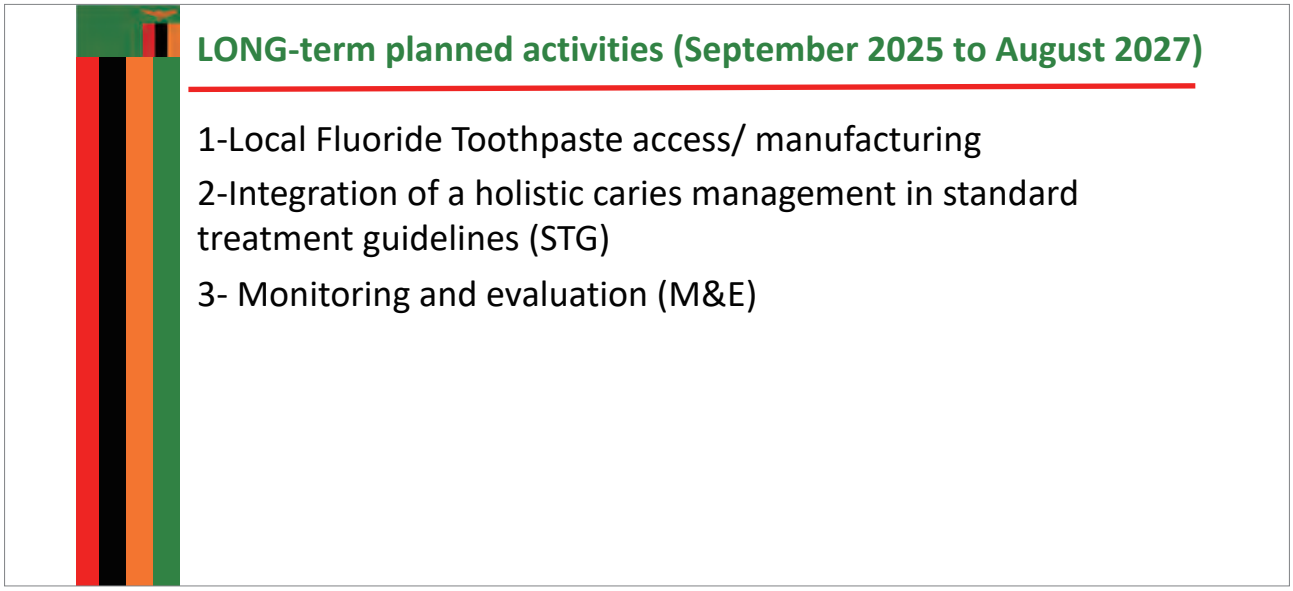
This is the team when we had a training program for the oral health workers on the use of SDF. There were dentists, dental therapists, dental technologists, and dental assistants.



These are our mid-term planned activities from January to August 2025. The first priority is to engage with the regulatory authority to register the silver diamine fluoride. The fluoride toothpaste and the glass ionomer cement have already been registered. The silver diamine fluoride remains to be registered.

Another activity is to engage for curriculum review so that universities can start teaching about silver diamine fluoride and its application in oral health. I was very happy when the team from Japan and WHO came to Zambia, and they actually helped me to make a presentation to one of the universities where we trained dental surgeons, dental therapists and dental assistants about the importance of this and even enhanced the Deputy Vice Chancellor of the need to include this in the curriculum. Thank you very much.

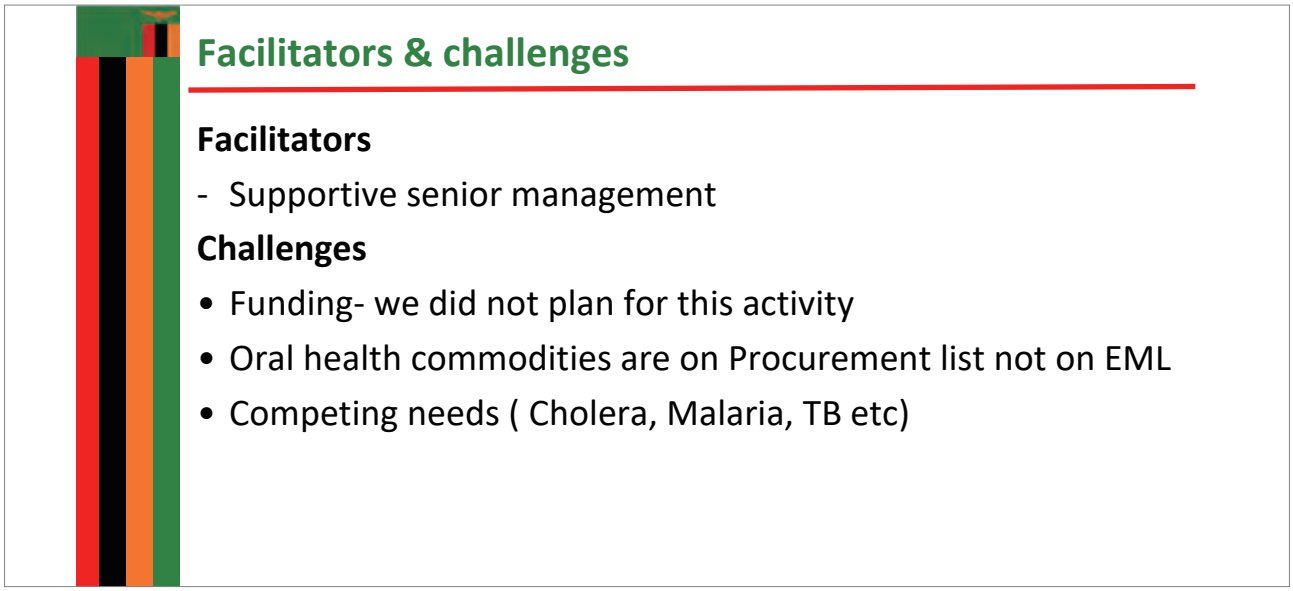
We train all oral health practitioners and other health workers on the use of the WHO approved preparations. As you are aware in Zambia, we are not oral health centric in terms of oral health workers like dentists. Because they are few, we want to include other oral health workers at the community level, at the rural health center level, and at the urban health center level, as well as clinical officers, to play a limited role in the use of these WHO approved preparations.



These are our long-term planned activities from September 2025 to August 2027. We want to have access to local fluoride toothpaste and the companies that can set up manufacturing facilities in Zambia, so that we can reduce the cost of fluoride toothpaste.

We want to integrate holistic caries management and standard treatment guidelines. Holistic caries management should include fluoride toothpaste, glass ionomer cement and silver diamine fluoride.

Finally, we need to monitor and evaluate what we would have achieved over the three years and then expand our needs so that everyone is covered at the grassroots level.

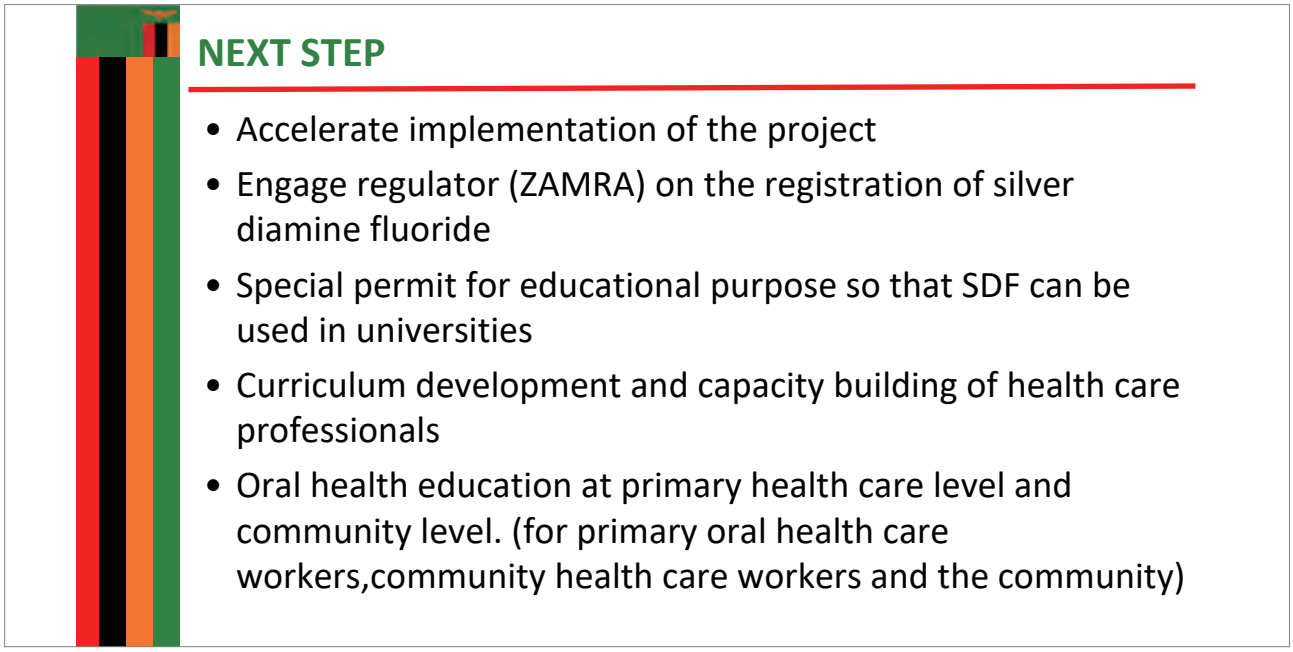


Let's look at our facilitators and challenges. In Zambia, we feel that the management is very supportive after explaining to them, and they push us to achieve the objective of the Project.

One of the challenges is funding, because we have not planned for it. We just have to plan for it this year so that we can start using the funds next year.

The other challenge is that all health commodities are on the procurement list. This is not good. If they are on the procurement list, we can only procure very little, but if they are on the Essential Medicines List, they can be put in the drug kit so that everyone at the community level, at the rural level, in the remote area can have access to them and they can be applied by the staff that are stationed there.

Another challenge is competing needs for funding. As you know, we have cholera, malaria and TB in this part of the world, and with the recent withdrawal of funding from our colleagues in the West, things are going to get tougher.



For the next step, we want to accelerate the implementation of the Project by vigorously engaging all stakeholders. We also want to engage a regulator, the Zambia Medicines Regulatory Authority, to register silver diamine fuoride (SDF).

We also want to acquire a special permit for educational purposes with immediate effect so that SDF can be used in universities immediately.

As a next step, for curriculum development and capacity building of health care professionals, we are engaging universities and building the capacity of oral health care professionals, not only dental workers, but also nurses of the 5 clinics and other clinical officers.

Oral health education at the primary health care level and the community level is very important because this is where most of the population is. Therefore, primary health care workers, community health care workers and communities need to know how to take care of their oral cavity using the WHO-approved essential medicines and dental preparations.

Thank you very much.

4 Panel Discussion

Moderator and Panelists

Yuka Makino, Moderator / Tom Menge, Kenya / Penny Muange, Kenya / Baraka Nzobo, Tanzania / Daudi Msasi, Tanzania / Christopher Kapeshi, Zambia / Agrippa Bwalya Simunyola, Zambia

Yuka Makino (Moderator) : How can countries improve the procurement of dental products, such as fluoride toothpaste, silver diamine fluoride, and glass ionomer cement, and also address issues related to affordability, especially in low-income settings? Over to you, the Kenyan and Tanzanian delegates.

Tom Menge, Kenya : Thank you very much. There are quite a few initiatives in the region that could help us consolidate our needs, allowing us to use various public procurement mechanisms. Unfortunately, this requires accurate quantification of the number of products used in each county. Unless we are able to accurately quantify the three products and determine how much is needed, we will not be able to consolidate our needs effectively.

The agreed-upon steps are, first, to determine if we can include these items in our Essential Medicines List (EML). This would allow them to be addressed as a public health concern. Once that is established, we can argue that oral health should be a priority and can be considered within the procurement mechanisms being set in the region, fostering healthy competition.

Moderator : Thank you for that concrete suggestion. Dr. Nzobo, over to you.

Baraka Nzobo, Tanzania : The cost and availability of dental materials is not a major issue. However, I would advise other countries, especially those from the Southern African Development Community (SADC) member states, to take note. Tanzania's Medical Store Department of the Ministry of Health has signed an agreement with all parties involved for the procurement and supply of medical and dental commodities, including dental supplies.

It is now a good opportunity for other countries within the SADC region to leverage the presence of Tanzania's Medical Store Department for the procurement of dental preparations, which can then be supplied to their countries at a lower cost. It is up to the countries to take advantage of this agreement signed by the member states of SADC. That is the advice from Tanzania. Thank you very much.

Moderator : Thank you both for your valuable contributions. I would like to continue by asking Kenya and Tanzania again, as I know that both countries are endemic to fluorosis.

At the same time, you are also working to promote fluoride-related initiatives. How are you managing this situation? Could you please share your thoughts on this? Maybe Dr. Penny from Kenya and then Dr. Nzobo from Tanzania. Over to you.

Penny Muange, Kenya : It is true that in Kenya, we have a problem with dental fluorosis and skeletal fluorosis in some areas, with the most affected being the previously known endemic regions, especially

along the Rift Valley. However, recently, due to the sinking of over 30,000 boreholes in the past five years to provide access to clean water, the situation has worsened in some areas. For example, in Nairobi, the capital city, recent studies have shown that the prevalence of fluorosis in children is around 78.5%[1], which is quite high.

In spite of this, the use of topical fluoride remains a cost-effective and very unique public health intervention in the prevention of dental caries. We are approaching the issue of promotion of fluoride-related initiatives, even in the setting of dental fluorosis, by educating the public on the benefits of topical fluorides, such as fluoridated toothpaste, in preventing dental caries and the negative effects of consuming water and foods high in fluoride. This is done through information, education, and communication materials, as well as extensive community engagement.

Moderator : Thank you for that information. Public sensitization is indeed crucial in this situation. Dr. Nzobo, would you like to respond?

Baraka Nzobo, Tanzania : Yes, thank you very much. As we know, dental caries affect not only individuals without fluorosis but also those who have it. Dental fluorosis occurs due to excessive fluoride intake from water and soil. When you see a tooth affected by fluorosis, it is the end result of fluoride exposure. However, the tooth still needs protection from free ion topical fluoride. Even if you have fluorosis on your teeth, without topical fluoride, your teeth will still be vulnerable to dental caries.

For example, in Tanzania, we observe that some rift valley regions with high fluorosis prevalence also have a high incidence of dental caries. The key issue is that they need to use free ion topical fluoride to protect themselves from dental caries. We continue to sensitize and educate people that even if you live in an area with endemic fluorosis, it is still important to use fluoride toothpaste and apply fluoride treatments to protect your teeth.

Moderator : Thank you for your response from Tanzania. Now, we would like to invite our Zambian colleague to speak. What I understand is that Zambia is moving away from a dentist-centric approach and is instead focusing more on a community or primary care level approach to address oral disease burden. How do you ensure the accessibility of oral health services, such as the application of silver diamine fluoride and glass ionomer cement, by non-dental professionals? Dr. Kapeshi, over to you.

Christopher Kapeshi, Zambia : Thank you very much. In Zambia, we realize that given the limited number of dentists, dental therapists, and general oral health professionals, we cannot achieve our goal of reaching everyone to ensure universal health coverage on our own. In doing so, we need to involve non-oral health workers and provide them with the necessary training. Additionally, even before implementing this approach, general clinical officers at all levels of healthcare, including rural centers, already receive two weeks of oral health rotation as part of their curriculum. During this rotation, they are taught oral health education, health promotion, and basic surgical procedures such as simple extractions of deciduous teeth.

So, we want to leverage this opportunity to train them in data science-based approaches and teach them proper tooth-brushing techniques. Additionally, we aim to instruct them on how to use glass ionomer cement and silver diamine fluorides effectively. This training will be conducted in collaboration with our dental therapists, where available.

By doing this, we can gradually reach a wider community than if we relied solely on dentists, as their numbers are very limited. Of course, we need to carefully monitor their work to ensure they stay within their scope of practice. Regular calibration and guidance will be necessary to make sure they perform these tasks correctly.

1 Fluorosis and Oral Health Status in Adolescents Living in a High-Fluoride Groundwater Area: A Case Study of Nairobi Suburbs (Kenya) (https://doi.org/10.3390/app13010368)

Moderator : Thank you, Dr. Kapeshi. That is a very effective approach. Now, moving on to procurement and essential medicines. Once a product is included in the National Essential Medicines List, rather than the national procurement list, the government is required to procure and distribute it to public health facilities. However, if a product is only on the procurement list, its availability will depend on available resources? Could you kindly describe what is the added value to integrate dental materials into the national EML? We have three Chief Pharmacists. Please respond to this question, over to you.

Agrippa Simunyola, Zambia : Once the product is on the essential list, it means that the government is compelled to procure and distribute it to public health facilities, whereas the product is just on the procurement list, it would depend on the availability of resources. So, it would be more on goodwill as opposed to a mandatory government requirement to procure. This approach follows the WHO concept, looking at the limited resource envelope, to prioritize only the products that are deemed essential. Thank you.

Moderator : It means that including dental materials as part of the Essential Medicines List, these products would be prioritized for purchasing in the country. Thank you. Dr. Daudi, would you like to respond to this issue?

Daudi Msasi, Tanzania : Yes, thank you. It would be the same as in Tanzania. Once a product is included in the Essential Medicines List, it gives an obligation to the government to ensure that the product is available and accessible to the public. However, if it remains only on the procurement list, the government has no strong obligation to ensure its availability. That is the key difference. Having products in the Essential Medicines List is mandatory. The government is mandated to make sure all essential products are available at the facility level. Thank you.

Moderator : Thank you very much for the clarification. However, from a quality assurance perspective, does integrating these materials into the Essential Medicines List, rather than just the general procurement list, provide any added value?

Daudi Msasi, Tanzania : Thank you. There is indeed an added advantage. Any product included in the Essential Medicines List is subject to strict regulatory control, ensuring its quality and accessibility. TMDA, Tanzania Medicines & Medical Devices Authority, starts registering the products, checking for their quality from manufacturers, and making sure the products are at the level of standards that they set.

Moderator : Thank you for that clarification. Dr. Tom from Kenya, could you explain why some dental products have not yet been adopted into the EML?

Tom Menge, Kenya : Thank you very much. I've been asked before why there is a delay in adopting some of the dental items into the Essential Medicines List. We have specific criteria that must be met for an item to be included. However, as my colleague mentioned earlier to, the challenge with the dental items is that they currently do not have a designated category in our Essential Medicines List.

So, in our discussion, we have agreed to reconsider our categorization, similar to how the World Health Organization has structured its service modalities for medicines, including dental preparations.

The second point we need to be mindful of is that, for an item to meet the criteria for inclusion, there must be a consensus among practitioners that these items are essential. This agreement is necessary to support their inclusion in the Essential Medicines List and to justify the requests for their addition. The request for inclusion must come from a wide range of stakeholders, including dental practitioners. Their request should be supported by sufficient evidence to justify the inclusion of these items in the Essential Medicines List.

The third point I would like to comment on is that a decision has been made to organize all relevant dental items within the Essential Medicines List. This process will not be limited to just three products but will encompass all products necessary for comprehensive dental care. This includes items for prevention, health promotion, curative treatment, and even rehabilitation.

We have requested a more comprehensive list so that we can address dental and oral health in its entirety. With this, the requirements would be slightly higher, as we would need evidence for its integration. Additionally, we do not have a procurement list in the country.

Moderator : Thank you for that insight. As you may have noticed, among the 11 global targets for the Global Oral Health Action Plan, the essential medicine component is the worst situation at the baseline assessment. Today's interventions by three countries would be very helpful for the other countries to start integrating the dental preparations into their EML in order to improve access to oral health services, especially at the primary care level. The experiences shared today by Kenya, Tanzania, and Zambia provide valuable guidance for other countries. I sincerely thank all panelists for their contributions.

5 Suggestions to Improve Access to WHO-listed Dental Preparations

Mohamed Ismail

Team Lead, Medicines Supply, Health Infrastructure, Equipment Maintenance team
WHO Regional Office for Africa

Thank you very much. Good morning, good afternoon, or good evening to everyone.

First of all, I would like to sincerely thank Dr. Yuka for inviting us to participate in this very engaging discussion. Allow me to introduce myself. My name is Mohamed Ismail, and I work as the Team Lead for Medical Products at the WHO Regional Office for Africa.

Part of our work involves supporting countries in developing and updating national medicines policies, including the essential medicines lists (EMLs) for priority medical products. As highlighted in the presentations, the three oral health products discussed are included in the WHO Model List of Essential Medicines. However, these products are not necessarily reflected in the national medical product lists of many countries.

I believe we have significant work ahead in advocating for the inclusion of these products, emphasizing their public health importance, and demonstrating how best to integrate them into national lists. In many cases, it is not an intentional exclusion of these products but rather a disconnect between the medical disciplines and the groups responsible for prioritizing medicines for the EMLs.

Webinars like this play a crucial role in raising awareness among those involved in essential medicines list development. They help us advocate for the inclusion of various products. For example, in some countries where we work, there are local manufacturers producing blood products, including plasma derivatives. However, these products are often not reflected in national lists. This is not due to a lack of recognition of their importance but because the relevant experts are not always included in the committees responsible for developing essential medicines lists.

Similarly, for oral health, it is important that we advocate for the inclusion of oral health experts in these discussions. Providing them with a voice in the selection process can be one of the many factors contributing to improved accessibility and availability of essential oral health products.

This webinar has been an excellent opportunity to learn about the efforts being made in the three countries that are presented today and to understand the valuable support provided by the Government of Japan. These contributions are greatly appreciated.

Once again, thank you for allowing us to be part of this important discussion.

6 Q&A

Q1 : How can we better organize the procurement of these dental preparations in our countries, and how can Japan or other countries help us acquire these products at a lower cost in low-income countries? (Original language in French)

A : Tanzania's presentation will provide some thought/ideas to improve access to these dental preparations in Africa. Please listen carefully to his presentation!

Q2 : We have recently been conducting many awareness campaigns in schools as well as screenings for oral diseases. However, the challenge remains in purchasing products, such as silver diamine fluoride and glass ionomer cement, for dental sealants. Locally, private suppliers offer these products at high prices, making it difficult to provide affordable dental care. How can you help us in this situation? (Original language in French)

A : If these dental preparations are included in the National Essential Medicines List, they can be procured in bulk through public procurement, making it easier to distribute them at a lower cost to public healthcare facilities.

Q3 : Thanks for sharing. Do you have any data on the cost-effectiveness of primary prevention programs? (Original language in French)

A : There are some scientific papers published regarding the cost-effectiveness of caries prevention. I cannot show you the evidence now, but you can search PubMed.

In addition, you can find the first set of the cost effective intervention on oral health by WHO: https://apps.who.int/gb/ebwha/pdf_files/EB154/B154_7-en.pdf (1) to implement a population-wide mass media campaign to promote the use of toothpaste with a fluoride concentration of 1000 - 1500 ppm; (2) to apply silver diamine fluoride for arresting dental caries and its progression; and (3) to use glass ionomer cement as a filling material for cavities, after removal of decayed tooth tissue using hand instruments.

Q4 : Thank you for the great presentations. For some countries in the Rift Valley region, dental fluorosis is quite prevalent (Kenya, over 40%). Are there any specific clinical guidelines for SDF /GIC use in such clinical presentations?

A : Thank you for a good question. This was answered in the panel discussion.

Q5 : As with the introduction of any evidence-based intervention, how well the intervention is adopted (and therefore attain the expected effectiveness) is very much context-dependent. Is there room for conducting implementation research to determine adoption, feasibility, appropriateness, etc., from different stakeholders (patients, healthcare workers, facility managers, etc.)? Has this been included as part of the implementation plan?

A : We also agree. We are planning to do some research, but not limited to implementation research.

Q6 : How much is Silver Diamine Fluoride in USD?

A : The price varies by country.

Q7 : Can we benefit from this Japanese training to better propose the integration of products into the national list and subsequently contribute to training our non-dental colleagues for a community-based approach? (Original language in French)

A : This training in Japan is not conducted on a regular basis. In addition, the training is not necessarily intended for non-dental professionals to replace dental professionals in providing services.

Q8 : How malleable is it to modify and expand the scope of practice in your country so that community health workers or nurses can apply for varnish or even SDF?

A : SDF contains quite a high concentration of fluoride ions. Therefore, SDF needs to be handled and applied carefully. Whether it can be expanded to other health professionals depends on the training level and the country's decisions.

Way forward

This webinar shared the experiences of the oral health project implemented in three countries, Kenya, Tanzania, and Zambia, during the Japanese fiscal year 2024. As a follow-up to the action plan developed in the first year, this year's focus is strengthening the capacity to deliver oral health services using key dental preparations at primary healthcare facilities, through the implementation of training-of-trainers (TOT) programs. Insights and learnings from the three countries will continue to be shared through future webinars.

The project will continue to promote the integration of oral health services into Universal Health Coverage (UHC) and contribute to reducing the prevalence of dental caries and enhancing treatment outcomes in the three countries, in collaboration with Niigata University and the WHO Regional Office for Africa. It is hoped that these efforts will lay the groundwork for broader regional support in Africa, leveraging the shared experiences and collaborative framework established through this initiative.

Acknowledgments

We would like to express our sincere gratitude to all those who participated in the webinar, viewed the sessions, and supported its operation. We sincerely hope that the content of this webinar will contribute to further improvements in the provision of oral health services, particularly in African countries.

Editorial contributors

(Alphabetical order by first name)

Agrippa Simunyola, Baraka Nzobo, Christopher Kapeshi, Daudi Msasi, Eiichi Shimizu, Hiroshi Ogawa, Penny Muange, Sachiko Takehara, Tom Menge, Tomoka Takano, Yuka Makino, Yuriko Egami

Webinar Report of the Oral Health Project
Sharing the Experiences from the Project to Strengthen Oral Health Services in Kenya, Tanzania, Zambia by Utilizing the WHO-listed Essential Dental Preparations Fluoride Toothpaste, Silver Diamine Fluoride, and Glass Ionomer Cement

Issued in June, 2025

Japan Institute for Health Security
Bureau of Global Health Cooperation

1-21-1 Toyama, Shinjuku-ku, 162-8655, Tokyo, Japan
https://kyokuhp.jihs.go.jp/eng

Japan Institute for Health Security
Bureau of Global Health Cooperation

https://kyokuhp.jihs.go.jp/eng

The National Center for Global Health and Medicine (NCGM) was renamed
the Japan Institute for Health Security (JIHS) on April 1, 2025

9784909675910