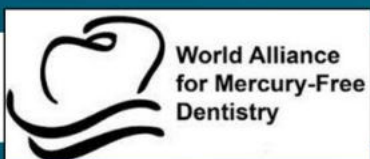




# Meeting Report: Update on the Use of Dental Amalgam

*National, Regional and Global*



## **Background**

On October 11, 2013, the government of Vietnam formally committed to joining the Minamata Convention on Mercury, an international treaty aimed at protecting human health and the environment from the harmful effects of mercury. This commitment was further solidified when Vietnam officially became a party to the Convention on June 23, 2017. Under the Convention, member states are required to adopt a series of measures aimed at reducing, and ultimately eliminating, the use of mercury in various products and processes, including dental amalgam. The Convention emphasizes phasing down the use of dental amalgam and phasing it out entirely for vulnerable populations such as children, pregnant women, and individuals with specific health conditions.

Globally, the movement towards mercury-free dentistry has been growing steadily. Many countries have responded positively, implementing bans or restrictions on the use of dental amalgam. This worldwide shift reflects an increased awareness of mercury's dangers, particularly its potential to cause environmental damage and adverse health effects. Mercury-free alternatives in dental care are becoming more common, and countries across various continents have enacted regulations to eliminate or reduce mercury usage.

In Vietnam, the transition towards mercury-free dentistry gained momentum in 2017, when the Center for Community Health and Injury Prevention (CCHIP) initiated a collaboration with the Vietnam Odonto-Stomatology Association (VOSA). Together, they have been actively promoting the phase-down and eventual phase-out of dental amalgam. This collaborative effort has involved a range of activities designed to raise awareness, educate dental professionals, and support the implementation of the Minamata Convention's guidelines. These initiatives have contributed significantly to Vietnam's progress in reducing the use of mercury in dental practices, aligning the country with global trends.

One of the pivotal moments in this campaign occurred on July 16, 2018, when VOSA issued an official recommendation urging dental practitioners to restrict the use of dental amalgam. This recommendation marked a significant step towards reducing mercury exposure in Vietnamese dental practices. Subsequently, on March 25, 2019, the Department of Medical Service Administration under the Ministry of Health issued a directive further strengthening this stance. The directive recommended that dental amalgam should no longer be used, particularly for vulnerable populations, reinforcing the nation's commitment to minimizing mercury-related health risks.

To evaluate the progress made in the years since these key recommendations and directives were issued, the CCHIP, in collaboration with VOSA, is organizing an event titled "Information Exchange Program: Update on the Use of Dental Amalgam in Vietnam." This program will serve as a platform for stakeholders to review and confirm the results achieved over more than six years since VOSA's 2018 recommendation and more than five years since the Ministry of Health's 2019 directive. The event aims to provide an updated overview of the efforts to reduce the use of dental amalgam, share insights into challenges faced, and explore strategies to move from a phase-down to a complete phase-out of dental amalgam in Vietnam.

## Meeting 1

**Date:** 10 September 2024

**Venue:** Ministry of Industry and Trade, Vietnam

### Participants:

- **Dr. Luu Hoang Ngoc**, Deputy Director of Vietnam Chemicals Agency (VINACHEMIA), Ministry of Industry and Trade, focal person for Vietnam Gov. on Minamata Convention
- **Mr. Le Viet Thang**: Deputy Chief of Office of VINACHEMIA, Ministry of Industry and Trade
- **PhD. Shahriar Hossain**: Executive Vice President, World Alliance for Mercury-free Dentistry; Advisor, UNEP Chemicals
- **Ms. Siddika Sultana**: Director, Asian Center for Environmental Health
- **Ms. To Thi Lien**: Deputy Director, Center for Community Health and Injury Prevention (CCHIP)



### Key Outcomes of the Meeting

- **VINACHEMIA is promoting a Decision by Vietnam Prime Minister to phase-out some mercury-added products, including dental amalgam, expected date of issuance: by June 2025**  
This phase-out will include a complete ban on the **import, export, sale, and production** of such products in Vietnam. The decision underscores Vietnam's commitment to implementing the Minamata Convention in full, addressing both the environmental and health risks associated with mercury use.  
*Key steps:* (1) deep research (especially on thermometer) → (2) propose a road map → (3) consultation with different stakeholders → (4) push (direct and indirect via media).
- **Celebration and Formal Announcement Ahead of COP-6**  
If the Decision issued within the expected timeline (June 2025), an event to announce the milestone in Vietnam's mercury phase-out efforts will be held. The celebration is expected to take place before the Sixth Meeting of the Conference of the Parties to the

Minamata Convention (COP-6). To underscore the global significance of this achievement, **Charlie Brown**, the President of the **World Alliance for Mercury-Free Dentistry**, will be invited as a special guest to this event, adding international visibility and recognition to Vietnam's efforts.

- **Technical Support and Coordination for Implementation**

To ensure smooth implementation of the phase-out, **Dr. Shahriar Hossain** will provide **technical support** to the Vietnam Government. His expertise, particularly in connecting Vietnam's actions to broader international commitments under the Minamata Convention, will be pivotal. Additionally, the **Asian Center for Environmental Health** will play a key role in facilitating the exchange of global updates related to mercury and public health. The immediate support is to share the report on Asian countries situation on the use and policies on Mercury-added products.

**To Thi Lien**, representing **CCHIP**, will work with Vietnam MOH to collect data on thermometer use and alternatives; advocate for the consensus on the ban. Besides, she will act as a liaison between the Center and the Ministry of Industry, ensuring that Vietnam remains updated on international developments and best practices in mercury phase-out efforts.

## Next Steps

- In the coming months, the Vietnam Government will proceed a Decision by Vietnam Prime Minister to phase-out some mercury-added products, including dental amalgam, expected date of issuance: by June 2025. After the Decision is enforced, the country will prepare for the formal celebration, solidifying its leadership in mercury elimination on the international stage. The partnership between Vietnam's government, the **Asian Center for Environmental Health**, and **CCHIP** will continue, ensuring that Vietnam's strategy remains aligned with global trends and developments.

This meeting marked a pivotal moment in Vietnam's environmental and public health policy, demonstrating its commitment to a mercury-free future. The collective efforts of national and international stakeholders highlight the global importance of mercury reduction in safeguarding both the environment and human health.

## Meeting 2

### Objectives

- ✓ To discuss the global progress in phasing out dental amalgam, including experiences from other countries and the steps taken by international bodies like the Minamata Convention.
- ✓ To outline and confirm the next steps toward a complete ban on dental amalgam use in Vietnam, aiming for full implementation by 2025, in line with global goals.
- ✓ To explore and recommend safer, mercury-free alternatives for dental treatments, ensuring these options maintain treatment quality and are accessible across Vietnam, particularly in underserved areas.
- ✓ To coordinate efforts among the Ministry of Health, VOSA, CCHIP, and other relevant organizations to ensure comprehensive and legally supported actions are taken towards phasing out amalgam use.
- ✓ To discuss strategies for increasing public awareness about the health and environmental risks associated with mercury in dental amalgam and the importance of transitioning to mercury-free dentistry in Vietnam

### Participants

Department of Medical Service Administration, MOH; Vietnam Health Environment Management Agency, MOH; Vietnam Chemicals Agency, Ministry of Industry and Trade, Leaders and key members from hospitals, institutes/ schools specializing in dentistry and 2 international experts invited by CCHIP attended the meeting.

### Opening speech

**A/Prof. Dr. Tran Cao Binh**, President of the Vietnam Odonto-Stomatology Association (VOSA) opened the meeting by highlighting its objectives, significance, and importance. Vietnam signed the Minamata Convention in October 2013, committing to protect human health and the environment from mercury pollution.

In July 2018, Prof. Dr. Tran Minh Hai from VOSA issued an official dispatch recommending the restriction of amalgam use in dentures. Following this, in March 2019, Assoc. Prof. Dr. Luong Ngoc Khue from the Department of Medical Service Administration issued a directive for all dental and maxillofacial medical facilities nationwide to establish a roadmap to eliminate amalgam use, provided suitable alternative materials were available that maintained the quality of care. Since then, the Vietnamese dental industry has successfully implemented this policy, ensuring that effective alternatives to amalgam are in place without compromising treatment quality.



## Welcome speech

**Assoc. Prof. Dr. Nguyen Huy Nga**, former Director General of the Vietnam Health Environment Management Agency (VIHEMA) and Deputy Director of CCHIP, delivered a welcome speech highlighting the severe health risks and environmental damage caused by mercury. He stressed that mercury, a highly toxic heavy metal, does not break down in the environment. Without proper management, it can devastate ecosystems and harm all living organisms. In humans, mercury exposure can severely impact health, particularly by damaging the central nervous system and the brain, especially in children and pregnant women. It can also affect the cardiovascular and digestive systems and even lead to cancer. Due to these dangers, international organizations have advocated for the complete removal of mercury from daily life. In response, Vietnam's Ministry of Natural Resources and Environment has developed plans to store mercury safely. However, since mercury cannot decompose, there is no viable way to eliminate it, and the use of incinerators is restricted to prevent further environmental and health damage



## Event description

**Assoc. Prof. Dr. Tran Cao Binh** provided a general overview, followed by Dr. Nguyen Thi Hanh's detailed presentation on the current use of dental amalgam in Vietnam. Dr. Hanh highlighted the harmful effects of amalgam on both patients and medical staff, as well as its environmental impact. She also discussed the availability of safe alternatives to amalgam.



The meeting featured two international experts from Bangladesh: Dr. Shahriar Hossain, Executive Vice President of the World Alliance for Mercury-Free Dentistry, and Ms. Siddika Sultana, Director of the Asian Center for Environmental Health. They presented on the global efforts to phase out dental amalgam by 2025 and the obligations outlined under the Minamata Convention's COP6



## Remarkable speech from the guest

After the presentation, the floor was open for an open discussion.

### **Address by Assoc. Prof. Dr. Luong Ngoc Khue, Vice President of the National Medical Council, Vice President of the VOSA, Former Director of the Department of Medical Service Administration**

**Assoc. Prof. Dr. Luong Ngoc Khue** expressed his appreciation for VOSA's report, comparing the ban on dental amalgam to the prohibition of Tetracycline use in children under 14. He noted that numerous studies and global recommendations highlight the harmful effects of amalgam, a sentiment shared internationally. Although he specialized in amalgam in the past, he acknowledged the availability of alternative methods for treating mercury-related issues in the maxillofacial region. **Currently, dental amalgam was officially removed entirely in the 'List of Technical Expertise in Medical Examination and Treatment as A Basis for building Technical-Economic Norms' promulgated together with Decision No. 2538/QD-BYT by Vietnam MOH, June 2023, and Vietnam may announce its cessation of use in Asia at an upcoming conference.** Following the meeting, VOSA will submit a report to the Department of Medical Examination and Treatment Management to support a nationwide ban on amalgam. Dr. Luong will also follow up with CV No. 261 from 2019 to finalize this ban.



### **Address by Assoc. Prof. Dr. Tran Cao Binh, President of the VOSA, Director of National Hospital of Odonto-Stomatology, Hanoi**

Continuing the discussion, **Assoc. Prof. Dr. Tran Cao Binh**, the meeting chair, expressed gratitude to Associate Professor Khue for his updates and emphasized that technical catalogs in Vietnam no longer list amalgam. It is expected that Vietnam will announce a complete ban on amalgam use in dental treatments starting in 2024, with the Ministry of Industry and Trade or the Ministry of Health issuing an official statement by January 2025. He remarked that all dental materials have varying health impacts and that each must be evaluated for its advantages and disadvantages. He reiterated that the Ministry of Health's approved list of medical materials no longer includes amalgam and stressed the need for continued communication efforts to eliminate its use in medical facilities fully.

### **Address by Prof. Dr. Hoang Tu Hung, Vice President of VOSA, Deputy Dean of Faculty of Medicine Vietnam National University, Ho Chi Minh City**

**Prof. Dr. Hoang Tu Hung**, also spoke, noting the global trend to eliminate mercury from all aspects of life, including health and environmental considerations. He stressed the importance of preventing mercury use, particularly in pregnant women and children, as studies have shown its harmful effects on development. While amalgam has been used for over 600 years and has undergone improvements, recent advancements in the past



30 years offer better alternatives. In 2021, the WHO issued an unofficial recommendation to phase out amalgam. Prof. Hung also highlighted concerns about the safety of composites, which contain endocrine-disrupting plastic compounds, and noted that although GIC is less toxic, it still poses some risks. He also added that choosing between composite and amalgam is no longer a relevant decision, as amalgam is being phased out globally. WHO recommends that low-income countries like Vietnam follow a clear roadmap to eliminate amalgam, which the country has already begun by limiting its use in children. He stressed the importance of monitoring the progress of this roadmap to ensure it is fully implemented.

**Address by Assoc. Prof. Dr. Pham Duong Chau, Deputy Principal Hanoi University of Business and Technology, Vice President of VOSA**

**Assoc. Prof. Dr. Pham Duong Chau** echoed these sentiments, reflecting on the historical evolution of amalgam use in Vietnam and the shift to alternative materials like gold resin from Taiwan. He emphasized the importance of training future dental professionals to avoid amalgam use, focusing instead on its history and the rationale behind its discontinuation.

**Address by Assoc. Prof. Dr. Tong Minh Son, Vice President of VOSA, Director of the Institute of Dentistry and Maxillofacial Training, Hanoi Medical University**

**Assoc. Prof. Dr. Tong Minh Son**, noted that the Institute of Dentistry Training has long stopped using amalgam. He called for broader research into alternative materials and methods for reducing toxicity in current options. Prof. Dr. Vo Truong Nhu Ngoc, a VOSA Executive Committee member, pointed out that while 50% of dental treatments in the US still use amalgam, eliminating it could pose financial challenges, as it is a low-cost material. Despite this, he no longer uses amalgam in his practice and highlighted that in Vietnam, most dental professionals mix amalgam manually due to a lack of machinery. He called for a ban on amalgam use in children and pregnant women, and eventually, for all patients, aligning with the European Union's 2029 deadline for a complete phase-out.

**Address by Dr. Shahriar Hossain (PhD.), Executive Vice President of the World Alliance for Mercury-free Dentistry, Advisor of UNEP Chemicals**

**Dr. Shahriar Hossain** discussed the broader issues associated with amalgam in Vietnam, including its use in illegal activities such as gold mining, as well as in cosmetics and herbal products, making regulation complex.



**Address by Prof. Dr. Vo Truong Nhu Ngoc Member of the Executive Committee of the VOSA, Deputy Director of Institute of Dentistry and Maxillofacial Training, Hanoi Medical University**

**Prof. Dr. Vo Truong Nhu Ngoc** added that while formaldehyde and arsenic have long been banned internationally, they are still widely used in Vietnam. Assoc. Prof. Dr. Tran Cao Binh



emphasized the need for state agencies to take part in developing a clear roadmap to eliminate amalgam use.

**Address by Dr. Bui Huu Toan, Health Environment Management Agency**

**Dr. Bui Huu Toan**, shared the findings of a Ministry of Health and WHO evaluation of mercury-containing equipment used in medical facilities. He noted that the use of amalgam in dentistry has significantly decreased since 2014. The Department of Health Environment Management has developed criteria to evaluate alternative equipment and is piloting these in Ninh Binh province, focusing on replacing mercury-containing materials with safer options.



**Address by MA. Le Viet Thang, Deputy Chief of Office of Vietnam Chemicals Agency, Ministry of Industry and Trade**

**MA. Le Viet Thang** confirmed Vietnam's adherence to the Minamata Convention and emphasized that while the Ministry of Health manages amalgam, his department supports a ban on all mercury-containing products, including light bulbs and thermometers. He appreciated hearing that the Ministry of Health had officially removed Amalgam from the List of Technical Expertise in Medical Examination and Treatment in an official Decision of Health Minister. He also questioned whether all provinces and vulnerable groups were being adequately covered and called for a clearer impact assessment, particularly on whether the ban should extend beyond children and pregnant women to include all patients.



**Address by Dr. Duong Huy Luong, Deputy Director of Department of Medical Service Administration**

**Dr. Duong Huy Luong**, Deputy Director of the Department of Medical Service Administration, fully agreed with VOSA's position and announced that the department would draft a proposal to ban amalgam for children under 15 and pregnant women, aiming for a complete ban by January 2026.



**Address by Assoc. Prof. Dr. Luong Ngoc Khue, Vice President of the National Medical Council, Vice President of the VOSA, Former Director of the Department of Medical Service Administration**

In conclusion, **Assoc. Prof. Dr. Luong Ngoc Khue** proposed a comprehensive assessment of all dental facilities across Vietnam, to be carried out in collaboration with the Department of Medical Service Administration, to determine the extent of amalgam use and ensure the roadmap is effectively implemented.



**Closing remarks**

Assoc. Prof. Dr. Tran Cao Binh concluded the meeting by affirming that the objectives had been successfully met, while incorporating the insights shared by experts and leaders from various ministries and departments. Even though, the Dentistry in Vietnam has enough legal basis to phase-out the use of amalgam, however, to ensure that no one is left behind and achieve 100% consensus of all stakeholders, moving forward, VOSA, in collaboration with CCHIP and relevant stakeholders, will continue to discuss at the national level, to set the deadline to totally phase out dental amalgam in Dentistry. In the near future, official notifications will be sent to relevant national and international agencies on the roadmap to end dental amalgam use in Vietnam.

**Annex**



*Group Photo from Meeting 1*



*Overview of Meeting 2*



Group photo from Meeting 2

ANNEX 1: LIST OF PARTICIPANTS

No.	Full name	Gender	Agency/Unit	Contact info
<b>A. VIHEMA, Ministry of Health</b>				
1	TS. Bùi Hữu Toàn (PhD.)	Male	Office staff	0834566559
<b>B. Department of Medical Service Administration, Ministry of Health</b>				
2	TS. Dương Huy Lương (PhD.)	Male	Deputy Director of Department of Medical Service Administration	
3	PGS. TS. Lương Ngọc Khuê (Assoc. Prof.)	Male	Vice President of the National Medical Council Vice President of the VOSA Former Director of the Department of Medical Service Administration	
<b>C. Vietnam Chemicals Agency, Ministry of Industry and Trade</b>				
4	ThS. Lê Việt Thắng (MPH)	Male	Deputy Chief of Office of Vietnam Chemicals Agency, Ministry of Industry and Trade	0982230483
<b>D. Vietnam Odonto - Stomatology Association, Hospitals, Training Facilities</b>				
5	PGS. TS. Đào Thị Dung (Assoc. Prof.)	Female	Member of the Executive Committee of the VOSA Lecturer at VNU University of Medicine and Pharmacy - VNU - UMP	0913236454
6	GS. TS. Hoàng Từ Hùng (Prof.)	Male	Vice President of VOSA Deputy Dean of Faculty of Medicine Vietnam National University, Ho Chi Minh City	0903826849
7	PGS. TS. Jong. Minh Sơn (Assoc. Prof.)	Male	Vice President of VOSA Director of the Institute of Dentistry and Maxillofacial Training, Hanoi Medical University	0912670670
8	GS. TS. Võ Trương Như Ngọc (Prof.)	Male	Member of the Executive Committee of the VOSA Deputy Director of Institute of Dentistry and Maxillofacial Training, Hanoi Medical University	0945786868
9	PGS. TS. Phạm Dương Châu (Assoc. Prof.)	Male	Vice President of VOSA Deputy Principal Hanoi University of Business and Technology	0922525252

No.	Full name	Gender	Agency/Unit	Contact info
<b>E. National Hospital of Odonto-Stomatology, Hanoi</b>				
10	PGS. TS. Trần Cao Bình (Assoc. Prof.)	Male	President of the VOSA Director of National Hospital of Odonto-Stomatology, Hanoi	00913309007
11	BS. Phạm Đức Giang (Dr.)	Male	Maxillofacial surgery	0917714097
12	TS. Nguyễn Thị Văn Anh (PhD.)	Female	Head of Children's Dentistry Department	0989148285
13	BS. CKII Nguyễn Thị Hạnh (Dr.)	Female	Department head, Department of Healthcare Activity Direction	0912643360
14	TS. Nguyễn Thanh Huyền (PhD.)	Female	Department of Healthcare Activity Direction	0968000999
15	BS. Dương Thị Phương Linh (Dr.)	Female	Office of Training	0987868761
16	TS. Chu Thị Quỳnh Hương (PhD.)	Female	Head of Department of Prosthodontics	0903298836
17	Ms. Bùi Thị Thanh Tâm	Female	Department of endodontic treatment	0983379324
18	ThS. Chu Tiên Thành (MPH)	Male	Department of Healthcare Activity Direction	0866945789
19	BS. Trần Phúc Minh (BS.)	Male	Department of Healthcare Activity Direction	0357513200
20	ThS. Chu Minh Huyền (MPH)	Female	Department of Healthcare Activity Direction	0763353377
21	CN. Nguyễn Minh Loan (Bachelor)	Female	Department of Healthcare Activity Direction	0918991403
22	CN. Như Phương Anh (Bachelor)	Female	Department of Healthcare Activity Direction	0932389966
23	CN. Nguyễn Diệu Linh (Bachelor)	Female	Office of Training	0334735896
24	CN. Nguyễn Minh Phương (Bachelor)	Female	Office of Training	0862569639
<b>F. Center for Communication Health and Injury Prevention</b>				
25	PGS. TS. Nguyễn Huy Nga (Assoc. Prof.)	Male	Former Director General of VIHEMA Deputy Director, CCHIP	0982823388

No.	Full name	Gender	Agency/Unit	Contact info
26	TS. Shahriar Hossain (PhD.)	Male	<i>Executive Vice President of the World Alliance for Mercury-free Dentistry Advisor of UNEP Chemicals</i>	shahriar25@gmail.com
27	Ms. Siddika Sultana	Female	<i>Executive Director of Asian Center for Environmental Health (ACEH) and Environmental and Social Development Organization (ESDO, Bangladesh)</i>	siddika@esdo.org
28	MPH. Tô Thị Liên	Female	<i>Deputy Director of CCHIP</i>	0973783308
29	Ms. Nguyễn Thị Phương Hoa	Female	<i>CCHIP staff</i>	0977590874
30	Ms. Vũ Thị Thanh Thủy	Female	<i>CCHIP staff</i>	0375780973
31	Ms. Nguyễn Thị Hồng Thanh	Female	<i>CCHIP staff</i>	0944899732

## Agenda

Time	Content	P.I.C
15h45-16h00	Welcome delegates	Organizing Committee
16h00-16h15	Introduction	MC. Dr. Phạm Đức Giang MC. Dr. Dương Thị Phương Linh
16h10-16h15	Opening speech	Assoc. Prof. Dr. Tran Cao Binh, President of VOSA
16h15-16h20	Welcome Speech	Assoc. Prof. Dr. Nguyen Huy Nga, Former Director General of Vietnam Health Environment Management Agency (VIHEMA), Deputy Director of CCHIP
16h20-16h45	Exchange and update on the Use of Dental Amalgam in Vietnam	Assoc. Prof. Dr. Tran Cao Binh & Dr. CKII. Nguyen Thi Hanh, Head of the Line Command Department
16h45-17h10	The Global Movement to Phase out Dental Amalgam by 2025: Obligations of Minamata Convention COP6	Dr. Shahriar Hossain, Executive Vice President of the World Alliance for Mercury-Free Dentistry, and Ms. Siddika Sultana, Director of the Asian Center for Environmental Health.
17h10-18h45	Discussions	All participants
18h45-18h55	Conclusion and closing	Assoc. Prof. Dr. Tran Cao Binh
18h55-19h00	Souvenir and group photo	All participants