

FDI World Dental Federation

Leading the World to Optimal Oral Health



Use and Future Use of Materials for Dental Restoration

FDI Advocacy toolkit



Foreword

This FDI Advocacy toolkit aims to inform and advise national dental associations (NDAs) with regard to the development of a global legally binding instrument on mercury to enable them to act effectively within tight deadlines.

It is based on FDI policy statements and General Assembly resolutions and should equip NDAs with the necessary knowledge on the *United Nations Environmental Programme (UNEP) Intergovernmental Negotiating Committee (INC)* process for their meetings with politicians, government officials, the press and other stakeholders.

The toolkit should be considered as representing consensus across FDI membership and its response to an evolving negotiating process of crucial importance to public health.



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Part 1: Executive summary

A global legally binding instrument (treaty) on mercury

In February 2009, the Governing Council (GC) of United Nations Environmental Programme (UNEP) agreed on the need to develop a global legally binding instrument (treaty) on mercury. The GC tasked governments to negotiate the treaty through a series of five conferences, called Intergovernmental Negotiating Committee (INC) meetings. Beginning in 2010, this series of five meetings will conclude in January 2013 in Geneva.

The Treaty and Oral Health

The UNEP treaty on mercury is highly relevant to oral health, as it will include provisions for dental restorative materials, specifically dental amalgam, which is under the section 'Products and processes', where it is currently classed as mercury-added product.

However such an important decision about global oral health should not be compartmentalised within a narrow debate about individual products, but rather be comprehensive in its scope, and include a commitment to improving health and oral health, as well as protecting the environment.

Oral diseases are some of the most prevalent diseases in the world, even though these diseases can be prevented or treated through safe and cost effective health care.

FDI Global Caries Initiative

The treaty's development comes as the profession is implementing a shift towards a prevention-based model of oral health care, through the FDI Global Caries Initiative. This transformation will, over time, become the most robust and long-term strategy to address the issue of dental restorative materials, including dental amalgam.

National dental association leadership

The dental profession welcomes the UNEP INC process towards a legally binding instrument for the positive impact it will have upon global public health. In negotiating this treaty the profession has a commitment and responsibility to:

- protect and maintain the gains in public health;
- introduce measures that will continue to improve (oral) health care worldwide;
- strengthen environmental stewardship through the promotion and adoption of an environmentally sound lifecycle management approach.

The final treaty will contain both legal obligations and voluntary measures that governments who sign the treaty (ie party to treaty) will need to implement at a national level. The treaty will contain provisions for dental restorative materials under article 6 (ref. Part 7), which will include dental amalgam.

National dental associations and their partners have a critical role in informing governments on the opportunities to improve health and protect the environment within the current UNEP negotiations on mercury, without diminishing the importance of safe, effective, affordable oral health care.

Key message and action

National dental associations and their partners should advocate for the operative paragraph on dental amalgam in Article 6 and for expanding the current text, so as to deliver a cost effective and sustainable solution for human health and the environment for all populations (see FDI Members and Partners actions, Part 4).



Part 2: Future Use of Materials for Dental Restoration

World Health Organization (WHO) Experts Consultation

In November 2009, the WHO Global Oral Health Programme – in cooperation with UNEP – organized and led a two-day meeting in Geneva to discuss the implications of use of dental restorative materials. The overall aim of the meeting was to assess the scientific evidence available on use of dental restorative materials, particularly the potential for use of materials alternative to dental amalgam in restorative care. The dental care and cost implications were discussed with special relation to the situation in low and middle income countries.

Twenty-nine participants from 15 countries from all six WHO regions attended the meeting, representing WHO, UNEP, WHO Collaborating Centres, international oral health researchers, scientists, university academics, ministries of health, Non-Governmental Organizations (NGOs), dentists and national dental associations.

Report recommendations

A report of the meeting was subsequently published in 2010 by WHO with the following main conclusions and recommendations:

- a progressive move away from dental amalgam would be dependent on adequate quality of alternative dental restorative materials
- as existing alternative dental materials are not ideal due to limitations in durability, fracture resistance and wear resistance, it would be prudent to consider “phasing down” instead of “phasing out” of dental amalgam at this stage.
- while glass-ionomer cements and resin-based composite materials are promising for future dental restorative care, there remains a need to promote the development of quality dental restorative materials for use in public health programmes. WHO highlighted as a matter of urgency that the oral health research community strengthens operational research in relation to the development and use of new dental restorative materials
- an acknowledgement that the dental profession is committed to changing the current paradigm to one based on disease prevention and health promotion
- the dental profession has a vital role to play in continuing professional development whereby dental professionals can adopt the available evidence on use of dental restorative materials and implement full lifecycle environmentally sound management
- improved patient, occupational and environmental health must be achieved

Part 3: FDI, national dental associations and its partners; 3 key strategic priorities

1. Disease prevention and health promotion

FDI and its global membership of national dental associations welcomed the publication of the WHO report `Future Use of Materials for Dental Restoration` and is supporting the World Health Organization in its recommendation to phase-down the use of dental amalgam through strengthening health promotion and disease prevention and to ensure that it's use continues in a manner, which respects and protects the environment.



FDI, its membership and partners are advocating for disease prevention to be included in Article 6 of the UNEP treaty on mercury. As dental caries is a non communicable disease, governments could harmonise with national policies for noncommunicable diseases enabling a whole government 'health in all policies' approach.

Over the last 10 to 15 years, the number of dental amalgam restorations placed annually has fallen in several regions of the world, including North America, Europe, Australia and the Middle East as a consequence of firstly, widespread use of fluoride; secondly improved levels of oral health, particularly through governments placing an increased emphasis in health systems on preventive care, risk assessment and surveillance, and thirdly the profession is adopting a minimally invasive (MI) approach to restorative / surgical care.

Minimal invasive approach

The minimal invasive approach is an expanded approach, which includes enamel remineralisation techniques and technologies and the use of adhesive materials, including resin based composite materials and glass-ionomer cements. This approach aims to preserve as much sound tooth structure as possible and allows for a broader range of clinical solutions, suitable for low, middle and high income countries.

Yet despite these changes and the move towards prevention and a minimal invasive approach, there is compelling evidence that dental amalgam still has a vital role to play in oral health care throughout the world and, importantly, within developing areas such as Asia, Africa and Central and South America.

2. Dental restorative materials research

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The profession has reaffirmed that it needs the full complement of currently available dental materials to provide safe and effective oral health care to help address health and socioeconomic issues (FDI General Assembly Resolutions 2009 & 2010).

Even though dental amalgam is effective and safe, FDI supports the WHO recommendation that research should continue into alternatives that could deliver even better treatment and outcomes for patients. However, there are unlikely to be any quick fixes. Dental amalgam has been in existence for over 150 years and despite intensive research no comparable replacement has yet been commercially developed. Therefore, until a comparably effective and safe treatment becomes available, FDI supports the ongoing availability of dental amalgam as a dental restorative material to protect and maintain the gains in public health.

WHO calls for "operational research in relation to use of dental restorative materials" ('Future Use of Materials for Dental Restoration' report, WHO, 2009).

It is important to understand and recognize that no medical or dental treatment of the human body is ever entirely-risk free – there is always a very small risk that something may not perform as expected or deliver the desired health outcome. Thus the dental profession acknowledges that while dental amalgam is a safe and effective treatment, the final choice with regards to treatment options, including the choice of dental restorative materials, should remain with the patient and their dentist. The aim is to achieve a health outcome that is in the best interests of the patient and has no or a minimal impact on the environment.



3. Environmentally sound lifecycle waste management

The profession has a responsibility to ensure that health and the environment are protected through safe handling practices, effective waste management and appropriate disposal of dental restorative materials (environmentally sound lifecycle management). Best management practices (BMP) for dental amalgam waste are well established in many countries and include the use of amalgam separators: "Using amalgam separators, together with other measures of BMP, can significantly reduce mercury discharge to the environment." ('Future Use of Materials for Dental Restoration' report, WHO, 2009). In addition the use of encapsulated amalgam has been shown to have positive occupational health benefits, as well as providing a 'closed loop' for effective environmentally sound lifecycle waste management.

Key messages

The treaty should not lead to any substantial changes in the current availability of dental restorative materials, including dental amalgam.

With respect to dental amalgam:

- there is overwhelming scientific evidence to prove that dental amalgam is a safe treatment for the vast majority of people
- it has been regularly improved during the last 150 years and remains the best and most cost-effective restorative material currently available in many circumstances, particularly where there are large dental cavities associated with poor oral hygiene
- current alternatives to dental amalgam that provide equivalent definitive restorative care are significantly more expensive due to the technical difficulty in fabrication, material costs, requirement for adjunct technologies, chairside time required for placement and shorter functional life
- as a widely used and cost-effective treatment, dental amalgam continues to play a fundamental role in maintaining the function of natural teeth and thus improving oral health globally, particularly in low and middle income countries

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Part 4: FDI membership and its partners' actions

FDI membership and its partners should collaborate with key stakeholders to improve health and protect the environment without diminishing the importance of safe, effective, affordable oral health care.

Proposed actions

The proposed actions aim to operationalize the WHO key strategic areas of the phase down approach and should include, amongst other things:

- implementation of a preventive based model of oral health care; increased emphasis on health promotion, risk assessment, disease prevention and surveillance;
- establishing a comprehensive global research agenda, including both public and private sectors, to develop and commercialise a replacement or new alternatives to dental amalgam that improve that of current available alternatives materials alongside expanded preventive approaches;
- adoption of environmentally sound lifecycle management of all dental materials, including dental amalgam;
- development and delivery education for health care providers on the safe handling, effective waste management and appropriate disposal of dental restorative materials and environment.



Part 5: FDI Global Caries Initiative: implementing a prevention model of oral health care

Profession led "call to action"

The FDI Global Caries Initiative (GCI) is a profession-led "call to action" to implement a new paradigm for caries management, disease prevention and health promotion, thus improve the oral and general health of populations globally by the year 2020.

A broad alliance

This Initiative aims to establish a broad alliance of key influencers and decision-makers from research, education, clinical practice, public health, government, and industry to bring about fundamental change in health systems and individual behaviour.

The GCI has the support of the World Health Organization Oral Health Programme, which has recognized the importance of promoting "a new paradigm among dental practitioners, shifting from a restorative to preventive/health promotion model".

Expanding value and contribute to health outcomes

It is important to be clear that the vision of the GCI is not simply to move from a surgical and restorative model of care to a preventive one, i.e. replacement. Rather it seeks encompass appropriate restorative care within a prevention based model of oral health to expand value and contribute to health outcomes.

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As WHO highlighted "different approaches to dental caries management in countries...need to be considered in oral health policy, development and planning of public health programmes. Implications for training of dental personnel and costs to society as well as the individual are significant." ('Future Use of Materials for Dental Restoration' report, WHO, 2009).

More information about the GCI can be found at:

www.globalcariesinitiative.org

Part 6: Public Health and Environment

Health through a better environment

WHO calls for health through a better environment; "Environmental hazards are responsible for as much as a quarter of the total burden of disease world-wide, and more than one-third of the burden among children. Health impacts of environmental hazards run across more than 80 diseases and types of injury".

UNEP INC linkage with other International Convention

UNEP secretariat is working with the secretariats of Strategic Management of International Chemicals Management (SAICM) and other standing Conventions (Basel, Stockholm, Rotterdam and Montreal) to prepare INC briefing documents. These documents will inform governments about relevant articles within the international Conventions that require consideration as part of the UNEP INC process. This should ensure the Mercury Treaty's alignment with all relevant conventions and treaties.



The Strategic Management of International Chemicals Management (SAICM)

SAICM (see link below) is a policy framework to foster the sound management of chemicals. While not legally binding, SAICM seeks to ensure that, by the year 2020, chemicals are produced and used in ways that minimize significant adverse impacts on the environment and human health.

The SAICM Global Action Plan covers a range of important areas in chemicals management, including nanomaterials, which has relevance to dental materials.

Implications for dental practice

It is important that national dental associations review the draft text of UNEP INC 4 and documents prior to INC 5, together with documents referring to SAICM and other international Conventions, to best understand the implications for general dental practice at a national level. These documents can be found on the UNEP INC 4 webpage (see link below).

The Basel Convention

Of most importance for dentistry and the UNEP INC process is the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (see link below). In 2011, UNEP published a linkage document concerning the relationship between its mercury treaty and the Basel Convention (see link below).

Other relevant conventions

Other Conventions which may also have national implications for dentistry are:

- The Rotterdam Convention, on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (see link below).
- The Stockholm Convention on Persistent Organic Pollutants (see link below).
- The Vienna Convention for the protection of the Ozone Layer and its Montreal Protocol on substances that deplete the Ozone Layer (see link below).

SAICM	www.saicm.org
UNEP INC 4 webpage	www.unep.org/hazardoussubstances/Mercury/Negotiations/INC4/tabid/3470/Default.aspx
Basel Convention	www.basel.int
Link between UNEP mercury treaty and the Basel Convention	http://www.unep.org/hazardoussubstances/Mercury/Negotiations/INC3/INC3MeetingDocuments/tabid/3487/Default.aspx
Rotterdam Convention	www.pic.int/TheConvention/Overview/TextoftheConvention/tabid/1048/language/n-US/Default.aspx
Stockholm Convention	http://chm.pops.int/Convention/ConventionText/tabid/2232/Default.aspx
Vienna Convention	http://ozone.unep.org/new_site/en/index.php



Part 7: Current treaty text at a glance

Background to the negotiations

In February 2009, the Governing Council of UNEP agreed on the need to develop a global legally binding instrument (LBI) on mercury. The work to prepare this instrument is undertaken by an Intergovernmental Negotiating Committee (INC) supported by the Chemicals Branch of the UNEP Division of Technology, Industry and Economics as secretariat.

Role of FDI World Dental Federation

The FDI's role is to facilitate political consensus and provide advisory services to enable individual dental associations to effectively engage with their government with respect to the UNEP INC process. FDI does not have a mandate to negotiate on behalf of its membership with respect to the UNEP INC process. Decisions with regards the final text of the legally binding instrument on mercury are taken by the member state governments. This is why it is so important for national dental associations to engage with their governments and motivate for operative paragraph on dental amalgam in Article 6 and the expansion of the current text.

Review of draft text

The table below is designed to facilitate a review of the draft text for a comprehensive and suitable approach to a globally legally binding instrument on mercury and provide markers on key issues.

- See draft text from INC 4: <http://www.unep.org/hazardoussubstances/Mercury/Negotiations/INC4/INC4MeetingDocuments/tabid/3490/Default.aspx>
- National dental associations should follow updates and documents posted on the UNEP INC website and to review against national regulations / legislation <http://www.unep.org/hazardoussubstances/MercuryNot/MercuryNegotiations/tabid/3320/language/en-US/Default.aspx>

NB: this table is based on draft text presented at INC 4, however does not represent a comprehensive analysis, but rather aims to highlight the major issues of relevance to the dental profession for review within a national context.

Draft text Article no.	Area	Item / issue	Comment
1	Objective		Option 2 offers more flexibility and scope for oral health
2	Definitions	Lists definitions relevant to the treaty negotiations	Several important definitions that refer to dental amalgam are contained within Basel Convention e.g. waste disposal
3	Mercury supply sources	Impact of treaty on elemental mercury supply sources, includes re-cycling – see draft text UNEP INC 4, Annex A	Adoption of a new ISO standard for dental amalgam by countries would make it impossible for bulk mercury to meet the new standard, thus helping to control the global trade of elemental mercury for dental use



4-5	International trade (with parties / with non parties)	Important to understand the implications of this item from i. a non party and ii. party stand point (ie party, if your government signs up to the treaty)	<ul style="list-style-type: none"> Establishing of national mercury containing products inventory Likely increase in tracking, auditing and reporting measures for use of mercury containing products
6 - 8	Product and Processes	INC 4 conference room paper 31 places dental amalgam in an operative paragraph which currently reads: "Each Party shall take measures to reduce the use of dental amalgam taking into account their domestic circumstances and relevant international guidance"*	<p>This option* offers i. opportunity to address dental amalgam in more holistic manner and deliver more comprehensive health / environment solution ie based on WHO phase down strategies</p> <p>ii. given wide disparities in health care services and financing, this option allows countries to take decisions on dental amalgam based on national circumstances.</p> <p>The other option (placement of dental amalgam in Annex C) would potentially lead to global restrictions that may not be in best interest of individual or population oral health (see above)</p>
9	Artisanal and small scale gold mining	Misappropriation / illegal use of mercury imported for dental use, predominantly for artisanal and small scale gold mining	Communication and co-ordination between dental industry, national dental associations and relevant government agencies
10 -11	Emissions and releases	<ul style="list-style-type: none"> crematoria¹ burning of medical waste² disposal of medical waste in landfills³ 	<p>¹ Refer to Annex G and related options (national circumstances)</p> <p>^{2&3} Responsibility of profession & individual dentists to adhere to sound environmental lifecycle management provisions (potentially mandatory provisions)</p>
12 - 14	Storage, wastes and contaminated sites	<ul style="list-style-type: none"> managing of dental amalgam waste within health facility / dental surgery competency of health facility / dental surgery waste water system interim storage of dental amalgam waste / scraps in health facility / dental surgery re-cycling procedures and responsibilities of health facility / dental surgery contaminated site management remediating and rehabilitating contaminated sites 	<ul style="list-style-type: none"> implications of mercury spillage in practice setting managing un-used / unwanted elemental mercury in dental facility potential increase in measures for auditing, tracking and reporting re dental amalgam national definition / interpretation of contaminated sites possible remediating and rehabilitating issues for health facilities / dental surgeries with past and current history of dental amalgam use
15 -17	Financial resources, technical and implementation assistance		Opportunities for capacity building and other mechanisms for support within and across FDI membership
18 - 23	Awareness raising, research and monitoring, communication of information	<ul style="list-style-type: none"> public information, awareness and education research, development and monitoring implementation plans reporting effectiveness evaluation 	Additional responsibilities for dentists and other health professions using dental restorative materials



Annex A: UNEP INC and media Interest

As we move towards next year's finalisation of UNEP's mercury treaty, it is likely that media and public awareness will increase. National dental associations should have access to accurate and reliable information concerning dental amalgam that they can use within their communications activities.

Advocacy

Advocacy is a means of increasing the influence or voice of civil society on public policy, priorities or actions and thereby effecting change. It can be carried out:

- directly, through meetings with ministers, parliamentarians (including members of the opposition) and officials
- through membership of specific committees and working groups involved in drafting legislation, defining budgets and so on
- in the media (media releases, interviews, etc.)
- through public events / outreach.

Health advocacy

Health advocacy encompasses activities that promote health and access to health care in communities and the general public. As professional associations working in the field of health, national dental associations (NDAs) represent practitioners with direct access to patient care and patient services.

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It is this proximity to the needs and requirements of patients and public that places them in a unique position to advocate for positive change in the health care system.

Running an effective advocacy campaign

To carry out an effective advocacy campaign on a specific issue it is crucial to:

- Define: what is the ultimate goal you want to achieve?
For example, ensuring your government fosters a preventive model of oral health care and continues to support the availability of amalgam in dental treatments based on the WHO phase down approach strategies:
- Decide: what policy/priority/action you wish to promote, influence or change.
At the outset, it is better not to be too ambitious: NDAs should read this guide and decide how to apply it to their national priorities.
- Identify: who makes the decision you are trying to influence and the timeline for the decision to be made.
These would include government ministers and their advisers, in particular minister of health and chief dental officer but, given the 'whole -of-government' focus, heads of other departments, parliamentarians (including members of the opposition) business leaders and other agencies that implement policy.
- Form alliances: with other groups with similar interests.
*Who are the partners you could work with to be more effective?
FDI is part of the World Health Professions Alliance, thus making contact with health profession national associations could be a start, as well as other groups such as professional and patient associations in the field of oral health and public health.*
- Get the facts: this means being in possession of the data and facts to support your case.
'Facts' can be objective (e.g. evidence-based data); however, they can also be subjective (e.g. public appraisals of, e.g. public awareness campaigns) or patients' perceptions of living with oral diseases or poor dental care. Statements of policy or best practice can also be used to support your arguments



- Devise: appropriate tactics.
There are numerous approaches: securing a place in the working group/committee charged with national implementation; ensuring allocation of a 'civil society' seat in public hearings; ensuring presence in the policy review process; direct contacts with ministers, parliamentarians and providing information and developing contacts among members of the media.

Annex B: Dealing with the media

Getting started

For anyone looking to engage with journalists, but is unsure how to start, then this section of the manual is for you. If you have enough resources, then it would make life easier to hire an experienced public relations agency. However, we know that such a solution is not always possible for our members, so we hope that the following guidance will prove useful.

If you want to establish mutually beneficial media relationships, make sure you make a good first impression. For instance, find out which journalists have written relevant stories by carefully searching online news sites. Whenever possible, try to avoid blindly sending out press releases and other information without checking first to see if you're targeting the right people.

Journalists receive many emails and phone calls every working day, most of which are ignored because they are either irrelevant or uninteresting.

Preparing press releases

For beginners, the best way to write a press release is to adopt the 5Ws rule – What? Who? Where? When? Why?

The first few paragraphs of every press release should provide information concerning the first four Ws. The fifth W – Why – should follow afterwards, then continue the story by providing any other relevant information.

An example of the 5Ws approach

1. **What** is your story about?
E.g. your dental association is calling on your country's government to support the preventive model of oral health care and advocating for dental amalgam to be addressed through an operative paragraph within Article 6
2. **Where** is this happening?
In your own country and globally with respect to the adoption of prevention based model of oral health care, and use of dental amalgam
3. **Who** is involved?
Stakeholders, including governments, United Nation agencies (UNEP, WHO and others), broad range of non governmental organisations (NGOs) as well as the International Association for Dental Research (IADR) and FDI
4. **When** is this happening?
The treaty will open for ratification in 2013 – UNEP GC meeting February 2013. (But remember, if you can issue a press release on the same day that other important announcements or developments occur, you will have a better chance of gaining journalists' attention.)
5. **Why** is this happening?
(Refer to executive summary and key messages for reasons).



Other points to remember when writing press releases:

- include a quote from one or two people (but no more), to provide a human perspective on the story
- keep your press release short – try to fit your story onto 1.5 sides of A4 (and double-space the text so it's easy to read)
- make sure you add contact details (phone and email) at the bottom of the press release.

Writing opinion articles

Local newspapers, trade press and a growing number of websites can provide opportunities for dental professionals to submit stories for publication. However, before you put fingers to keyboard or pen to paper, it is important to know the purpose of what you are writing, so that you understand the story and for whom you are writing.

The key requirements for any article are:

- topical and relevant story - e.g. why the ongoing negotiations about a global mercury treaty must continue allowing dentists to use dental amalgam and is opportunity to promote diseases prevention and health promotion
- a strong headline
- an interesting introduction
- the Five Ws (What is this story about; Who is involved, When and Where are things happening; Why is this happenig?)
- demonstrate your expertise – as dental practitioners, what insights can you provide that others cannot?

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Once you have prepared strong answers for all these requirements, either telephone or email your target journalist to see what they think.

Remember that, unlike press releases, articles are more conversational and are usually opinion-led. Be sure to conclude with a strong finish / call to action.

Things to avoid:

- long, repetitive sentences
- bad jokes
- medical or scientific jargon
- assuming the readers know as much as you do about the topic you're describing

But don't forget:

- always be accurate – and use spell-check
- keep it simple and concise
- keep to the word count
- stay on topic
- meet the deadline that you agreed with the journalist.



Notes:

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