

FDI World Dental Federation

Leading the World to Optimal Oral Health



Dental restorative materials and the Minamata Convention on Mercury

Guidelines for successful implementation



Foreword

In February 2009, the Governing Council of the United Nations Environmental Programme (UNEP) agreed on the need to develop a global legally binding instrument, or treaty, on mercury. It tasked governments to negotiate through an Intergovernmental Negotiating Committee (INC) on Mercury, which met five times beginning in June 2010 and concluding in January 2013.

The resulting international instrument is called the Minamata Convention on Mercury. Opened for signature in October 2013, it provides controls and reductions across a range of products, processes and industries where mercury is used, released or emitted. It is named after the city in Japan where residents suffered debilitating and lethal health effects due to mercury pollution in the mid-20th century. The Minamata Convention's provisions for dental amalgam—a mercury-added product containing 50% mercury—make it highly relevant to the dental profession.

During negotiations on the Convention, FDI had advocated a reduction (phase-down) in the use of dental amalgam—versus a ban (phase-out)—through (1) a reduction in use based on a reduction in demand through greater focus on dental prevention and health promotion, (2) increased research and development on alternatives and (3) environmentally sound lifecycle management for mercury and amalgam waste.

During the fifth negotiating session (INC5) in January 2013, consensus built around this phase-down approach advocated not only by FDI but also the World Health Organization (WHO), the International Association for Dental Research (IADR) and the International Dental Manufacturers (IDM). Thus, efforts by a team representing the international dental and oral-health sector succeeded in ensuring that dental practitioners would continue to have access to dental amalgam when needed and in the framework defined by the Convention.

Acknowledgement

During the INC sessions, interventions from national governments advised by advocacy groups such as national dental associations (NDA) had a significant impact on the text of the Minamata Convention on Mercury. FDI, the World Health Organization (WHO) and the International Association for Dental Research (IADR) owe a debt of gratitude to NDAs for their work during all stages of negotiations. FDI would like to thank its members for the part they played in making clear the necessity of a phase-down rather than a phase-out approach to dental amalgam.



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Part 1: Executive summary

Scope of the present document

These *Guidelines for Successful Implementation* are designed to:

1. Equip members of national dental associations (NDAs) with the necessary knowledge about the contents and provisions of the recently-agreed Minamata Convention on Mercury for their meetings with politicians, government officials, the media and other stakeholders;
2. Advise NDAs about the obligations and opportunities for the dental sector derived from the commitments and provisions of the Minamata Convention on Mercury.

The Minamata Convention on Mercury

The Minamata Convention on Mercury (called hereafter ‘the Convention’) provides controls and reductions across a range of products, processes and industries where mercury is used, released or emitted. These include medical equipment such as thermometers and energy-saving light bulbs as well as the mining, cement and coal-fired power sectors. Mercury released to water or air can enter the environment where it can be converted to methylmercury and be concentrated in the human food chain.

The Convention’s provisions for dental amalgam—a mercury-added product containing 50% mercury—make it highly relevant to the dental profession. Dental amalgam is a key restorative material in the fight against dental caries, the cause of tooth decay, which afflicts 90 percent of the world’s population, making it a global public health issue.

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Dental amalgam is the *only* mercury-added product subject to a phase-down. All other uses of mercury in products addressed in the Convention are subject to a ban or phase-out, i.e. a ban to take effect at a later date. The Convention does, however, set out nine provisions for its use.

Note: The Convention should not lead to any changes in the availability of dental amalgam in the immediate future. However, in the longer-term, restrictions in mercury sourcing and trade in Article 3: Mercury supply sources and trade, are likely to have an impact on the availability and cost of the base product mercury and hence, on amalgam.

Commitments and responsibilities

During the negotiations, the dental profession demonstrated its 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.

This commitment comes at a time when the dental profession is considering a paradigm shift from a restorative to a prevention-based model of oral-health care. A number of models already exist, including the FDI’s Global Caries Initiative. This transformation will, over time, lead to a sustainable long-term strategy to address the various safety, efficacy and environmental impacts of all dental restorative materials, including dental amalgam.



Impact on the dental profession

Dental professionals living in a country that has ratified the Convention need to be aware of the direct impact this will have on their profession. In addition, national dental associations (NDAs), their partners and individual dental professionals have a critical role to play in ensuring that the impact is positive. They should take an active role by helping inform governments about opportunities to improve health and protect the environment within the context of the Convention without diminishing the importance of clinically proven, cost-effective and affordable oral-health care. Advocacy and media activities to achieve this goal are presented in Parts 5 to 7, pages 11 to 17.

The next few years will see the implementation stage (2014 to 2017), to be monitored by what the Convention calls the 'Conference of the Parties'. The expected result for dental amalgam is a reduction in demand through increased efforts: at prevention, to use alternative materials where clinically indicated and to research improved alternative materials. NDAs should lead these efforts: failure to reduce demand, hence use, of dental amalgam could result in a reconsideration of the special treatment and increased pressure for an outright ban.

It is now up to the members of the oral health profession to develop ways and means to demonstrate their understanding of the issues and commit to its undertakings in the field of prevention, research and the development of new materials as outlined in the Convention under Annex A, Part II (*see page 8*).

Key partners in phasing down the use of amalgam

- Policy makers and national health authorities
- Third-party payment systems
- FDI World Dental Federation
- International Association for Dental Research (IADR)
- Dental manufacturers
- WHO and UNEP

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Entry into force of the Minamata Convention on Mercury

'The Convention shall enter on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession.' (Article 31, item 1)

Non-ratification

The Convention enters into force 90 days after it has been ratified by 50 countries, but *only in the ratifying countries*. As of 1 November 2013, over 100 countries have signed the Convention.

However, NDAs need to be aware that groups could continue to lobby (1) within a non-signatory country, for the non-ratification of the Convention or a ban or phase-out of permitted products such as dental amalgam or (2) within a signatory country, for a review of the provisions on dental amalgam under Article 4, item 8 (*see Appendix B, page 21*).



Part 2: Understanding the Minamata Convention¹

What the Convention addresses

The Convention addresses a variety of processes and products related to the use and emissions of mercury around the globe. They include:

- Mercury trade and supply;
- Manufacturing processes in which mercury or mercury compounds are used;
- Sources of emissions of mercury and mercury compounds to the atmosphere;
- Artisanal and small-scale gold mining;
- Mercury-added products.

Mercury-added products (Convention article 4, paragraph 3 and Annex A)

Dental amalgam is among a number of products listed in the Convention as 'Mercury-added products'. According to the definition of the Convention a 'Mercury added product' means a product or product component that contains mercury or a mercury compound that was intentionally added. All mercury-added products are subject to a 'phase-out', with the single exception of dental amalgam, see below.

Mercury-added products exempt from the Convention

- Vaccines, where mercury is used as a preservative, have been excluded as have products used in religious or traditional activities.

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Mercury-added products subject to a phase-down

- Dental amalgam is the *only* mercury-added product specifically to be subject to a phase-down. It is covered by the provisions Article 4 (Mercury-added products), paragraph 3, which states: 'Each Party shall take measures for the mercury-added products listed in Part II of Annex A in accordance with the provisions set out therein.'

Nine provisions for the use of dental amalgam are defined in Part II of Annex A of the Minamata Convention on Mercury (*reproduced in Table I, page 8*).

Mercury-added products whose production, export and import will be banned by 2020

- Batteries, except for 'button cell' batteries used in implantable medical devices;
- Switches and relays;
- Certain types of compact fluorescent lamps (CFLs);
- Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps;
- Soaps and cosmetics.

[1] The final report of the fifth meeting of the International Negotiating Committee on Mercury, including the full text of the Minamata Convention on Mercury is online in Arabic, Chinese, English, French, Russian and Spanish at <http://www.unep.org/hazardoussubstances/Mercury/Negotiations/INC5/INC5Report/tabid/3496/Default.aspx>



Other products to be phased out by 2020

Certain kinds of non-electronic medical devices such as thermometers and blood pressure devices are also included for phase-out by 2020. Governments approved exceptions for some large measuring devices where currently there are no mercury-free alternatives.

Table 1: Minamata Convention on Mercury, Annex A, Part II: Products subject to Article 4, paragraph 3

Mercury-added products	Provisions
Dental amalgam	Measures to be taken by a Party to phase down the use of dental amalgam shall take into account the Party's domestic circumstances and relevant international guidance and shall include two or more of the measures from the following list: (i) Setting national objectives aiming at dental caries prevention and health promotion, thereby minimizing the need for dental restoration; (ii) Setting national objectives aiming at minimizing its use; (iii) Promoting the use of cost-effective and clinically effective mercury-free alternatives for dental restoration; (iv) Promoting research and development of quality mercury-free materials for dental restoration; (v) Encouraging representative professional organizations and dental schools to educate and train dental professionals and students on the use of mercury-free dental restoration alternatives and on promoting best management practices; (vi) Discouraging insurance policies, and programmes that favour dental amalgam use over mercury-free dental restoration; (vii) Encouraging insurance policies and programmes that favour the use of quality alternatives to dental amalgam for dental restoration; (viii) Restricting the use of dental amalgam to its encapsulated form; (ix) Promoting the use of best environmental practices in dental facilities to reduce releases of mercury and mercury compounds to water and land.

Part 3: Interpreting the provisions for dental amalgam in the Minamata Convention

For the purpose of these guidelines, the nine provisions in Table 1 (*above*) can be grouped into five primary areas:

1. Disease prevention and health promotion (Provisions i and ii)
2. Dental restorative materials research (Provision iv)
3. Education (Provisions iii and v)
4. Financial incentives (Provisions vi and vii)
5. Best management practice (Provisions viii and ix)

See Part 5, Table 2, page 12, for key messages, actions and advocacy related to the following articles on disease prevention and health promotion, dental restorative materials research and best practice (environmentally sound lifecycle waste management).



1. Disease prevention and health promotion

(see also Part 4: Profession-led calls to action, page 11)

Strengthening disease prevention and health promotion could be achieved within the context of the 'health in all policies approach' defined in Article 36 of the United Nations Political Declaration on Non-communicable Diseases (2011)² and the 'common risk factor approach' described in Article 19.

There, governments recognize 'that renal, oral and eye diseases pose a major health burden for many countries and that these diseases share common risk factors and can benefit from common responses to non-communicable diseases.'

Furthermore, 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. This is due to:

- Improved levels of oral health; particularly through governments placing an increased emphasis in health systems on preventive care, risk assessment and surveillance;
- Widespread use of fluoride;
- An increased focus, in certain parts of the world, on dental aesthetics and the use of 'white fillings';
- A phase-out of dental amalgam in some countries;
- The dental profession adopting a minimally invasive approach to restorative / surgical care.

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Minimal Intervention Dentistry

The Minimal intervention Dentistry (MID) approach is a concept/philosophy that aims at keeping teeth healthy and functional throughout life. Its foundation is to preserve as much sound and remineralisable tooth tissues as possible. It achieves this through the following guidelines: exercise proper caries diagnosis and caries risk assessment, optimal use of evidence-based preventive measures, tailor-made recall schedule, use of minimal invasive operative interventions and repair rather than replace faulty restorations. Minimal invasive interventions use adhesive materials, including resin-based composite materials and glass-ionomer cements and allow for a broader range of clinical solutions, suitable for low, middle and high-income countries³. However, it is technically far more demanding and exacting for the practitioner to place successfully for a sustainable result.

Despite 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. It also has a vital role to play for particular clinical conditions as well as ease of use where clinical facility limitations exist, for its characteristics of longevity and durability.

2. Dental restorative materials research

In 2010, WHO published a report entitled *Future Use of Materials for Dental Restoration*⁴. It was based on the findings of a meeting held the previous year involving all six WHO regions, 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.

[2] For explanations of the contents of the UN Political Declaration on Noncommunicable Diseases, consult the FDI publication *Oral Health and the United Nations Political Declaration on NCDs: a guide to advocacy*, online at www.fdiworldental.org/media/9465/oral_health_and_un_political_dec_on_ncds.pdf

[3] MID paper of the FDI Task group: Frencken et al, 2012

[4] www.who.int/oral_health/publications/dental_material_2011.pdf



The aim was to assess the scientific evidence available about the use of dental restorative materials, particularly the potential for use of alternative materials to dental amalgam in restorative care. Dental care and cost implications were discussed, especially in relation to the situation in low and middle income countries.

Future Use of Materials for Dental Restoration contains the following primary conclusions and recommendations:

- A progressive move away from dental amalgam would be dependent on adequate quality of alternative cost-effective 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 at this stage to consider 'phasing down' instead of 'phasing out' the use of dental amalgam.
- 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. As a matter of urgency, the WHO highlighted that the oral-health research community strengthen operational research in relation to the development and use of new dental restorative materials.
- An acknowledgement that members of the dental profession are committed to changing the current dental caries management paradigm to one based on disease prevention and health promotion.
- Members of the dental profession have a vital role to play in continuing professional development whereby dental practitioners can adopt the available evidence on the use of dental restorative materials and implement full lifecycle and environmentally sound management of these materials.
- Improved patient, occupational and environmental health must be achieved.

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Even though dental amalgam is a safe and clinically and cost-effective restorative material, FDI supports the WHO recommendation that research should continue into alternatives that could deliver even better treatment outcomes for patients.

3. Best practice: 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.'⁵

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.

The exact amount of mercury used for dental amalgam is subject to controversy as in some countries bulk mercury imported for dental amalgam is actually used for artisanal gold mining. It is then the responsibility of the dental and trade professions to ensure the use of encapsulated mercury and BMP. Like other measures related to waste management in the health sector, controlling the release of mercury into the environment has of course a cost that has to be included in the treatment.

[5] *Future Use of Materials for Dental Restoration*, WHO, 2009.



Part 4: Profession-led calls to action

FDI Global Caries Initiative

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.

WHO support

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'.⁶

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.'⁷

Part 5: Key messages, actions and advocacy

Commitment

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.

A review of the Convention's provisions on dental amalgam is programmed within five years (*Article 4, item 8, see page 21*) and the dental profession has every interest in providing concrete examples of its commitment and, where possible, results.

[6] *Future Use of Materials for Dental Restoration*, WHO, 2009, page 32.

[7] *Future Use of Materials for Dental Restoration*, WHO, 2009.



Table 2: Compilation of Minamata themes and resulting messages, actions and advocacy for the dental profession

Theme	WHO Report: Use and future use of dental restorative materials	Minamata Convention Annex A provisions
Prevention	<p>'The meeting considered the importance of strengthening oral health promotion and disease prevention as the strategy to reduce the use of all restorative dental materials.'</p> <p>(Exec Summary, page V)</p>	<p>(i) Setting national objectives aiming at dental caries prevention and health promotion, thereby minimizing the need for dental restoration;</p> <p>(ii) Setting national objectives aiming at minimizing its use;</p>
Research	<p>'Existing alternative dental materials are not ideal due to limitation in durability, fracture resistance, and wear resistance . . . recognized the need for strengthening of research into the long-term performance, possible adverse effects, and viability of such materials.'</p> <p>(Exec Summary, page VI)</p>	<p>(iv) Promoting research and development of quality mercury-free materials for dental restoration;</p>
Education	<p>'The meeting recognized the variation in dental practice between countries and the challenges faced by middle- and low-income countries providing dental care. This will likely result in different approaches to dental caries management in countries that 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.'</p> <p>(Exec Summary, page V)</p>	<p>(iii) Promoting the use of cost-effective and clinically effective mercury-free alternatives for dental restoration;</p> <p>(v) Encouraging representative professional organizations and dental schools to educate and train dental professionals and students on the use of mercury-free dental restoration alternatives and on promoting best management practices;</p>
Financial incentives	<p>'In the vast majority of countries around the globe the current cost of applying glass ionomer or composite is high to the patient and society compared to the costs of using dental amalgam for restoration. For low resource people in most countries, high expenses on dental care often will lead to extraction of teeth, which impairs quality of life.'</p> <p>(12.5, Cost of dental care, Page 30)</p>	<p>(vi) Discouraging insurance policies, and programmes that favour dental amalgam use over mercury-free dental restoration;</p> <p>(vii) Encouraging insurance policies and programmes that favour the use of quality alternatives to dental amalgam for dental restoration;</p>
Best management practice	<p>'Using amalgam separators, together with other measures of BMP, can significantly reduce mercury discharge to the environment.'</p>	<p>(viii) Restricting the use of dental amalgam to its encapsulated form;</p> <p>(ix) Promoting the use of best environmental practices in dental facilities to reduce releases of mercury and mercury compounds to water and land.</p>

Key messages for the dental profession	Actions for the dental profession	Advocacy by the dental profession
<p>The dental profession has reaffirmed that it needs the full complement of dental materials currently available to provide safe and effective oral-health care to help address health and socioeconomic issues (FDI General Assembly Resolutions 2009 and 2010).</p> <p>There is overwhelming scientific evidence to prove that dental amalgam is a clinically effective and safe treatment for the vast majority of people.</p> <p>Dental amalgam has been regularly improved during the last 150 years and remains a cost-effective restorative material currently available in many circumstances, particularly where there are large dental cavities associated with poor oral hygiene.</p> <p>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.</p> <p>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.</p> <p>Even though dental amalgam is a safe and effective restorative, FDI supports the WHO recommendation that research should continue into alternatives that could deliver even better treatment outcomes for patients. However, there are unlikely to be any quick fixes.</p> <p>It is important to recognize that no medical or dental treatment of the human body is ever entirely risk-free. There is always a risk that something may not perform as expected or deliver the desired health outcome.</p> <p>The dental profession acknowledges that while dental amalgam is a safe and effective treatment, the final choice with regard to dental restorative materials should remain with patients and their dentists. The aim is to achieve a health outcome that is in the best interests of the patient and has no impact or a minimal impact on the environment.</p>	<p>Implement a preventive based model of oral health care with increased emphasis on health promotion, risk assessment, disease prevention and surveillance;</p> <p>Implement the Minimal Intervention Dentistry philosophy for managing dental caries;</p> <p>Ensure patient awareness of effective brushing practices;</p> <p>Ensure patient awareness of effective commercially available mechanical and chemical plaque control aids;</p> <p>Share experience with colleagues worldwide on prevention strategies that have shown promising results.</p>	<p>Call for national prevention programmes for dental caries and associated health promotion programmes.</p> <p>Support at national level new WHO Draft Guidelines: Sugars intake for adults and children, recommending that sugars should be less than 10% of total energy intake per day and further recommendation that a reduction to below 5% of total energy intake per day would have additional benefits. <i>See page 22.</i></p>
	<p>Establish a comprehensive global research agenda, including both public and private sectors, to develop and commercialise quality mercury-free materials for dental restoration, alongside expanded preventive approaches;</p> <p>Ensure that dental colleagues worldwide are aware of ongoing research on dental materials at national and regional level and, where applicable, the preliminary results.</p>	<p>Call on all stakeholders to initiate a comprehensive, sustainable global research agenda, involving both the public and private sector.</p> <p>Call for the development and commercialization of new alternative dental materials and the improvement of currently available alternatives, alongside expanded preventive approaches.</p>
	<p>Develop and deliver education for health care providers on the safe handling, effective waste management and appropriate disposal of dental restorative materials and environment;</p> <p>Ensure that dental students are apprised of work with and understand the relative advantages and disadvantages of the full range of dental restorative materials during the course of their training;</p> <p>Educate decision makers and public on the merits of fluoride and fluoridation in oral health care, as laid down in FDI Policy Statements.</p>	<p>Call on relevant bodies to:</p> <ul style="list-style-type: none"> • strengthen under- and post graduate curricula and continuing professional development for health professionals; and • work with government agencies to deliver national campaigns in support of improved patient, occupational and environmental health; <p>Keep governments up-to-date on the latest available evidence and research to ensure it is reflected in the latest oral health care policy initiatives.</p>
	<p>Work with insurance companies to achieve more equitable coverage of dental restoration using non-amalgam solutions.</p>	<p>Lobby governments not to favour amalgam over more costly solutions in oral health financing initiatives.</p> <p>Work with governments to develop new and innovative models of financing oral health care, including incentives to move away from amalgam.</p>
	<p>Adopt environmentally sound lifecycle management of all dental materials, including dental amalgam;</p> <p>Adopt Best Management Practices (BMP) for amalgam waste, including use of the ISO 11143 standard amalgam separator in dental offices and facilities.</p>	<p>Advocate a life-cycle approach to the sale and disposal of amalgam.</p>



Part 6: Public health advocacy

National dental associations should have access to accurate and reliable information that they can use within their communications activities. In addition, members of the dental profession wishing to be more involved have a number of options, including advocacy, employing best management practices and minimally invasive techniques that best fit their local circumstances.

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.

Five of the nine provisions listed Annex A, Part II, of the Minimata Convention on Mercury lend themselves to action on a local level (*provisions i, ii, iii, vi, vii, see Table 1, page 8*). FDI encourages NDA representatives and other dental professionals to help implement them both during the ratification process and after the Convention is ratified.

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, NDAs represent practitioners with direct access to patient care and patient services.

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 a sufficient range of cost-effective restorative materials 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. For example, develop a menu of initiatives in the field of prevention, research and Best Management Practice to implement the provisions of the Convention.
- 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 (such as public appraisals of 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. For example, what is the real amount of mercury used for dental amalgam in your country?
- Devise: appropriate tactics.
There are numerous approaches, including but not limited to:
 - *securing a place in the working group / committee charged with national implementation;*
 - *ensuring allocation of a seat for the dental profession 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.*

Part 7: Interacting with the media

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The process of ratification of the Minamata Convention on Mercury began in October 2013: the Convention will come into effect 'on the ninetieth day after the deposit of the fiftieth instrument of ratification, acceptance, approval or accession'⁸. During this period, it is likely that media and public awareness surrounding dental amalgam will increase.

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.

[8] Minamata Convention on Mercury, Article 31 (see page 19).



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, communicated through public service messages.

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 organizations (NGOs) as well as the International Association for Dental Research (IADR) and FDI.

4. **When** is this happening?

The ratification process of the Convention began in October 2013 and is ongoing. If your country is already a signatory, issue a supportive press release. If your government has not signed yet, issue a press release to encourage it to do so. 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 Convention supports a phase-down approach and is an 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 happening?);
- demonstrate your expertise—as dental practitioners, what insights can you provide that others cannot?

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.

Appendix A: The Minamata Convention at a glance

Note: empty cells in the following table mean the article is not relevant to dental amalgam.

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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 Convention	Dental amalgam is grouped with 'Mercury-added products', defined under Article 2 (f)
3	Mercury supply sources	Impact of the Convention on elemental mercury supply sources, includes re-cycling	ISO 24234 (2004) Dentistry – Mercury and alloys for dental amalgam, which allows the use of bulk mercury, is currently under revision. The revised scope is: 'To enhance the safety of dentists and support staff, and minimize the consequence that might result from the accidental damage to containers during shipping, the scope is limited to dental mercury that is supplied pre-encapsulated or in pre-dosed sachets. Both are limited to a mass sufficient for one mix.'
4	Mercury-added products	The provisions of this Article cover dental amalgam, considered a mercury-added product. Detailed provisions for dental amalgam are given in Annex A.	See in particular Article 4, sub-clause 8: 'No later than five years after the date of entry into force of the Convention, the conference of the Parties shall review Annex A and may consider amendments to that Annex in accordance with Article 27.'
5	Manufacturing processes in which mercury or mercury compounds are used		



Article no.	Area	Item / issue	Comment
6	Exemptions available to a Party upon request		
7	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
8	Emissions	<ul style="list-style-type: none"> • crematoria¹ 	¹ There is no specific reference to 'crematoria' in the INC report or the text of the Convention, although other UNEP documents suggest that uncontrolled crematoria could be a source of emission
9	Releases	<ul style="list-style-type: none"> • burning of medical waste² • disposal of medical waste in landfills³ 	^{2&3} Responsibility of profession & individual dentists to adhere to sound environmental lifecycle management provisions (potentially mandatory provisions)
10	Environmentally sound interim storage of mercury, other than waste mercury	<ul style="list-style-type: none"> • advocate on site (dental clinics and waste treatment facilities) for sound interim storage 	
11	Mercury wastes	<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 • effectiveness evaluation 	<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
12	Contaminated sites	<ul style="list-style-type: none"> • contaminated site management • remediating and rehabilitating contaminated sites 	<ul style="list-style-type: none"> • 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
13	Financial resources and mechanism		
14	Capacity-building, technical assistance and technology transfer		Opportunities for capacity building and other mechanisms for support within and across FDI membership
15	Implementation and Compliance Committee		
16	Health aspects		
17	Information exchange		
18	Public information, awareness and education		Additional responsibilities for dentists and other health professions using dental restorative materials



Article no.	Area	Item / issue	Comment
19	Research, development and monitoring		
20	Implementation plans		
21	Reporting		
22	Effective evaluation		
23	Conference of the Parties	Keeps under continuous review and evaluation the implementation of the Convention	
24	Secretariat		
25	Settlement of disputes		
26	Amendments to the Convention		
27	Adoption and amendment of annexes	Governs possible amendments to Annexes, including Annex A, Mercury-added products and its provisions for dental amalgam	
28	Right to vote		
29	Signature		
30	Ratification, acceptance, approval or accession		
31	Entry into force	'This convention shall enter into force on the ninetieth day after the deposit of the fiftieth instrument of ratification, acceptance, approval or accession.'	
32	Reservation		
33	Withdrawal		
34	Depositary		
35	Authentic texts		
Annex A	Mercury-added products	Dental amalgam is a mercury-added product	
Annex B	Manufacturing processes in which mercury or mercury compounds are used		
Annex C	Artisanal and small-scale gold mining		
Annex D	List of point sources of emissions of mercury and mercury compounds to the atmosphere		
Annex E	Arbitration and conciliation procedures		



Appendix B: The Minamata Convention, Article 4—Mercury-added products

Article 4 Mercury-added products

1. Each Party shall not allow, by taking appropriate measures, the manufacture, import or export of mercury-added products listed in Part I of Annex A after the phase-out date specified for those products, except where an exclusion is specified in Annex A or the Party has a registered exemption pursuant to Article 6.
2. A Party may, as an alternative to paragraph 1, indicate at the time of ratification or upon entry into force of an amendment to Annex A for it, that it will implement different measures or strategies to address products listed in Part I of Annex A. A Party may only choose this alternative if it can demonstrate that it has already reduced to a *de minimis* level the manufacture, import, and export of the large majority of the products listed in Part I of Annex A and that it has implemented measures or strategies to reduce the use of mercury in additional products not listed in Part I of Annex A at the time it notifies the Secretariat of its decision to use this alternative. In addition, a Party choosing this alternative shall:
 - (a) Report at the first opportunity to the Conference of the Parties a description of the measures or strategies implemented, including a quantification of the reductions achieved;
 - (b) Implement measures or strategies to reduce the use of mercury in any products listed in Part I of Annex A for which a *de minimis* value has not yet been obtained;
 - (c) Consider additional measures to achieve further reductions;
and
 - (d) Not be eligible to claim exemptions pursuant to Article 6 for any product category for which this alternative is chosen.

No later than five years after the date of entry into force of the Convention, the Conference of the Parties shall, as part of the review process under paragraph 8, review the progress and the effectiveness of the measures taken under this paragraph.
3. Each Party shall take measures for the mercury-added products listed in Part II of Annex A in accordance with the provisions set out therein.
4. The Secretariat shall, on the basis of information provided by Parties, collect and maintain information on mercury-added products and their alternatives, and shall make such information publicly available. The Secretariat shall also make publicly available any other relevant information submitted by Parties.
5. Each Party shall take measures to prevent the incorporation into assembled products of mercury-added products the manufacture, import and export of which are not allowed for it under this Article.



6. Each Party shall discourage the manufacture and the distribution in commerce of mercury-added products not covered by any known use of mercury-added products prior to the date of entry into force of the Convention for it, unless an assessment of the risks and benefits of the product demonstrates environmental or human health benefits. A Party shall provide to the Secretariat, as appropriate, information on any such product, including any information on the environmental and human health risks and benefits of the product. The Secretariat shall make such information publicly available.
7. Any Party may submit a proposal to the Secretariat for listing a mercury-added product in Annex A, which shall include information related to the availability, technical and economic feasibility and environmental and health risks and benefits of the non-mercury alternatives to the product, taking into account information pursuant to paragraph 4.
8. No later than five years after the date of entry into force of the Convention, the Conference of the Parties shall review Annex A and may consider amendments to that Annex in accordance with Article 27.
9. In reviewing Annex A pursuant to paragraph 8, the Conference of the Parties shall take into account at least:
 - (a) Any proposal submitted under paragraph 7;
 - (b) The information made available pursuant to paragraph 4;
 - and
 - (c) The availability to the Parties of mercury-free alternatives that are technically and economically feasible, taking into account the environmental and human health risks and benefits.

Note: These Guidelines for Implementation focus intentionally on Article 4, which is directly concerned with amalgam. However, the global context of the Convention offers governments indirect ways to impact on the availability of dental amalgam through Article 3 on mercury supply sources and trade. FDI and the NDAs should also monitor carefully any change in legislation which might impact availability and trade of mercury, including amalgam waste and recycling.



Appendix C: Other public health and environment-related Conventions

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.'⁹

During drafting and throughout the negotiating process, UNEP took great care to ensure that the Minamata Convention on Mercury was aligned with all relevant conventions and treaties, notably:

- The Strategic Management of International Chemicals Management (SAICM) 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. More at www.saicm.org
- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. More at www.basel.int
- The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. More at: www.pic.int/TheConvention/Overview/TextoftheConvention/tabid/1048/language/n-US/Default.aspx
- The Stockholm Convention on Persistent Organic Pollutants. More at: <http://chm.pops.int/Convention/ConventionText/tabid/2232/Default.aspx>
- The Vienna Convention for the protection of the Ozone Layer and its Montreal Protocol on substances that deplete the Ozone Layer. More at: http://ozone.unep.org/new_site/en/index.php

Note: WHO has issued Draft Guidelines: Sugars intake for adults and children, recommending that sugars should be less than 10% of total energy intake per day and further recommendation that a reduction to below 5% of total energy intake per day would have additional benefits. For dental caries, the following document informed the WHO Guidelines: Draft Effect on Caries of Restricting Sugars Intake Systematic Review to Inform WHO Guidelines at: <http://jdr.sagepub.com/content/93/1/8>.



Notes:

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