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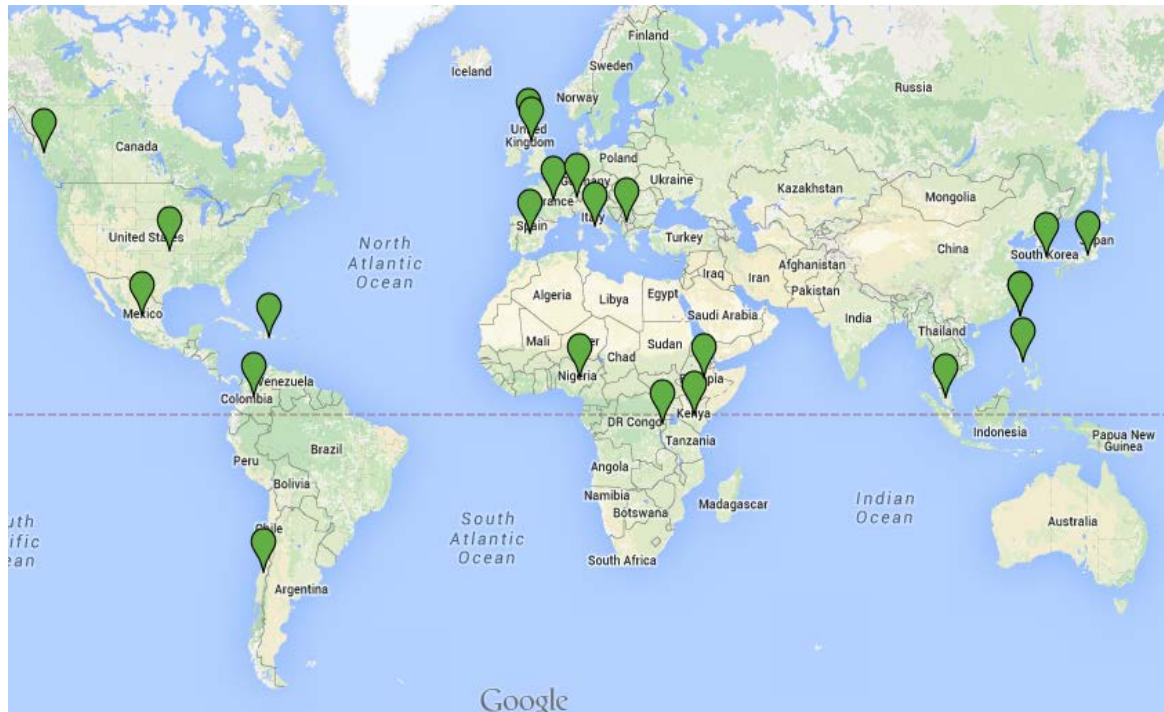
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Introduction

This interactive workshop will bring together 50 leaders of reproductive health professional societies from 22 countries/territories around the globe to develop a plan of action to address exposure to toxic environmental chemicals (Figure 1).

**Figure 1. FIGO Summit on Shaping Our Planetary Legacy:
Setting an Agenda for Environmental Reproductive Health
22 countries/territories Represented by Summit Participants**



Below is a brief summary of some of the highlights of how reproductive health professionals have become engaged on preventing exposure to toxic environmental chemicals, followed by a draft action plan for stimulating discussion at the Summit, and resources related to reproductive health and the environment.

Background

The roots of medical health professionals' organized engagement in environmental health were planted in 1957 when the American Academy of Pediatrics (AAP), concerned about the impacts of radioactive fallout from atmospheric testing of nuclear weapons, established the Committee on Radiation Hazards and Epidemiology of Malformations, the predecessor to AAP's current Council on Environmental Health.¹ In 1973 AAP broadened its focus to the health impacts of environmental chemicals for fetal and child health and in 2012 published its 3rd edition of

“Pediatric Environmental Health,” a guide for pediatricians on the prevention of exposure to environmental chemicals and other hazards in infancy, childhood, and adolescence.¹

In the 1990s the issue of toxic environmental chemicals came to the concerted attention of reproductive health professionals, when a Massachusetts report published by Greater Boston Physicians for Social Responsibility and the Massachusetts Public Interest Research Group Education Fund grew into the groundbreaking book *“Generations at Risk. Reproductive Health and the Environment.”*² *Generations at Risk* stitched together the perspectives of physicians, public health professionals, environmental educators, and policy advocates on the research linking reproductive health to inter-generational harm.

In 2007, the University of California San Francisco and the Collaborative on Health and the Environment convened the *Summit on Environmental Challenges to Reproductive Health and Fertility*, which brought together over 400 physicians, scientists, advocates, and policy makers to “review the science linking exposure to chemicals with impaired reproductive health and fertility and to discuss new research directions, clinical care approaches, educational tools, and policy initiatives to improve fertility, pregnancy outcomes, development and reproductive health.”³

In 2009, the Endocrine Society released its first-ever Scientific Statement, which focused on the basic science of endocrine disrupting chemicals and the implications for human health and disease, a topic that was also reviewed by the United Nations Environmental Programme and World Health Organization in 2002 and 2012.^{4,5}

In recognition of the opportunity to advance women’s health through preventing exposure to toxic environmental chemicals and other agents, in 2013, the American College of Obstetricians and Gynecologists (ACOG) and the American Society for Reproductive Medicine (ASRM) issued a Joint Committee Opinion on Toxic Environmental Agents.^{6,7} The ACOG/ASRM Opinion describes how toxic chemicals in the environment harm our ability to reproduce, negatively affect pregnancies, and how they are associated with numerous other long-term health problems. In 2013 the Royal College of Obstetricians and Gynecologists (RCOG) issued a Scientific Impact Paper on chemical exposures during pregnancy in order to raise awareness of the topic so that women have the facts needed for informed decision-making. The ACOG/ASRM Opinion and RCOG Scientific Impact Paper have made the prevention of patient exposure to toxic environmental chemicals a legitimate area of practice for reproductive health professionals in the clinical setting and in policy arenas.

In May 2015, in recognition of the need for a world federation, such as FIGO, to address the threat of toxic environmental chemicals to human reproductive and developmental health on the global stage, FIGO’s board adopted its Opinion, ***Reproductive Health Impacts of Exposure to Toxic Environmental Chemicals***. At the same time, FIGO also approved a new FIGO Working Group, on the topic of Reproductive and Developmental Environmental Health, (RDEH). The aim of the RDEH is to capture the momentum of the FIGO Opinion and follow it with a group of

experts who will review and address these issues from scientific, social, and political perspectives and keep this as a central FIGO agenda item for the coming decade.

FIGO Working Group on Reproductive and Developmental Environmental Health (RDEH)

The following description and charge for the RDEH was adopted by the FIGO Board in May 2015.

Goals

- Disseminate FIGO's Preliminary Action Plan for Research and Policy and other information to raise awareness on environmental chemicals and air pollution as a priority among reproductive health professionals, policy makers/other stakeholders.
- Build awareness and understanding, and promote actions about environmental chemicals and air pollution as an emerging policy issue.
- Advocate for policies to prevent exposure to toxic environmental chemicals for all.
- Advocate for research to advance knowledge about reproductive and developmental environmental health, vulnerable populations, and prevention.
- Reduce exposures and/or effects, in particular among vulnerable populations, through timely updates to the 2012 WHO/UNEP Report *State of the Science of Endocrine-disrupting Chemicals* with particular attention to the needs of developing countries and countries with economies in transition.
- Raise awareness and facilitate science-based information exchange, including translation of research findings into actions globally.
- Make environmental health part of health care globally.
- Champion environmental justice globally.
- Work with relevant stakeholders and policymakers to support activities to build global capacity, particularly in developing countries and countries with economies in transition, for generating information and assessing issues related to environmental chemicals and air pollution that will inform decision-making, including prioritizing reducing/eliminating risks.

The RDEH will be convened after the October 4th Summit and will work closely with the FIGO Safe Motherhood Committee, the Reproductive Medicine Committee, the Committee for Capacity Building in Education & Training, the FIGO Working group on Nutrition, and the FIGO working group on Best Practice on Maternal Fetal Medicine, and their chairpersons will be ex-officio members of the new Committee.

The RDEH committee through its work will focus on advocacy; capacity building and training; and will promote, encourage and carry out collaborative research (implementation and

operational science; clinical and translational science) to answer the many knowledge gaps related to the effects of environmental exposures (especially endocrine-disrupting chemicals (EDCs) and air pollution) on reproductive capacity and reproductive and developmental outcomes; as well as develop evidence base on how best to minimize and ultimately prevent reproductive and developmental harm due to environmental exposures.

The RDEH will be represented from countries and regions bearing the greatest burden, as well as countries that have made the most significant contributions to understanding the problem. This will ensure that issues including developing nations' resource constraints as well as those of the developed industrialized world are addressed.

The RDEH committee will be sub-divided into three groups:

1. Advocacy

The advocacy sub group will focus on promoting the need to address the links between Maternal and Child health (MCH), non-communicable diseases (NCDs), and environmental exposures in a more cohesive manner and determine innovations within health systems. The advocacy sub group will work to establish close links with other advocacy groups, as well as with other stakeholders, such as the WHO, UNEP, IPEN, DOHaD. This group will carry out its work in close collaboration with the FIGO Communications Team as well as other relevant committees of FIGO. The committee will also make efforts to raise funds to support its meetings and work.

2. Training and Capacity

The training and capacity sub group will work closely with the Committee on Capacity Building in Education and Training, as well as with members of national associations, to develop curricula and training materials to implement the FIGO RDEH initiative for all levels of healthcare providers, stakeholders and advocacy groups. The group will also support "twinning" whereby one national association with greater capacity within or outside the region will help another national association to increase capacity. Educational courses to implement the FIGO RDEH initiative are new and would take place at the FIGO World congress and other regional and national conferences in the future.

3. Research

The research sub group will work closely with national associations, academic institutions and other FIGO committees to promote, encourage and support collaborative research in the field of implementation and operational science; clinical and basic science. Research priorities identified in the FIGO RDEH initiative as well as other relevant areas will receive due attention. A research network will be established wherein there will be sharing and transfer of knowledge; and in collaboration with the

other two groups efforts made to apply the learning into practice.

Liaison and Progress

The RDEH will meet at least once a year and report on the progress of its work.

Funding and Financial

The intention of the RDEH is that support to promote the working agenda of the RDEH will be favorably addressed and funded by leading philanthropic organizations, including the Bill & Melinda Gates Foundation, the Buffett Foundation, and others. The budget will be handled by the FIGO administration. The working group will ensure that FIGO and all Committees involved are regularly up-dated with all matters concerned including the budget. These periodic reports will be presented to the Officers and to the FIGO Board, via the General Manager.

October 4th, 2015 Summit on Shaping Our Planetary Legacy

Meeting Goal

The goal of this interactive workshop is to bring together leaders of reproductive health professional societies from around the globe to develop a plan of action to address exposure to toxic environmental chemicals. Subsequent to the Summit, the FIGO Reproductive and Developmental Environmental Health Working Group will work to carry this agenda forward and develop new directions, as needed.

Overview of Organizations Participating in the Summit

The following overview summarizes the results of the preconference survey to provide a snapshot of the wealth of existing organizational resources that will be represented in the room on October 4th. Of 50 Summit participants 24 participants from 18 organizations responded to the preconference survey in full or in part. As there are many missing data, these results are intended to indicate a starting point for our discussion. **These data are not intended to be scientifically representative of the participating organizations activities.** A list of meeting participants and short bios are provided in a separate document.

The mission common to organizations participating in the Summit is dedication to advancing and improving women's health and healthcare. Some organizations explicitly aim to reduce chemical exposure for both mother and child. Almost all of the 18 organizations that responded to the survey have been in existence for 20 years or more. Participating organizations represent constituents around the globe, including: the United States, Canada, Korea, Central and South Asia, East Africa, and over 22 Latin-American countries, including Mexico and its 32 states.

Organizations said they use a variety of STRATEGIES to work towards their missions, including:

- Continuing education
- Research
- Advocacy
- Policy
- Collaborating with government agencies
- Working to eliminate chemical and toxic hazards from the environment

Organizations said they access various types of AUDIENCES, including:

- Obstetricians and gynecologists, other clinicians, nurses, and midwives
- Scientists
- Laboratory staff
- Therapists [unspecified]
- Patients, community members, women
- Government officials and organizations
- Attorneys

Organizations said the GREATEST OPPORTUNITIES for advancing reproductive environmental health are:

- **Advocacy**
 - [Creating] political will
 - Connecting/targeting [health] professionals, policy makers, organizations, government agencies, and other stakeholders to disseminate new findings and information
 - Strong, dynamic, committed, and empowered membership/an active professional association with sustainable development
 - Advocacy campaigns (events, campaigns, actions with other NGOs, side events, roundtables, publications, press conferences, products testing, etc.) whose targets are policymakers, key stakeholders, multipliers, companies, etc.
 - Recognition as a legitimate partner at the national and international level in the improvement and long-term advancement of maternal and child health
 - Utilizing grassroots strategies; nationwide outreach to regional networks
- **Training and Capacity Building**
 - Publishing/communicating practice guidelines
 - Implementing evidence-based interventions
 - Continuing medical education
 - Health insurance coverage for virtually all citizens
 - Well-developed sub-specialty programs
 - Community services and outreach programs
 - Awareness raising activities (workshops, trainings, information sessions, publications, webinars, etc.) that target vulnerable populations, i.e., pregnant women, adolescents, women of childbearing age, parents-to-be, populations facing social difficulties, marginalized populations, etc.
 - Training and dissemination to multipliers such as health professionals, midwives, nurses, pediatricians, etc., with training materials adapted to the target audience
 - Including environmental health [in our work]
- **Other**
 - Reducing maternal and infant mortality rates

Organizations said the following are MOST NEEDED to advance environmental health:

- **Resources**
 - Financial -- time and money
 - Human - involvement of national societies and their members; engagement of members of societies on the issue; finding the right partners and experts/professionals to develop high-quality projects; partnerships with others who have experience dealing with environmental health
 - Technical – Clear, concise, evidence-based recommendations that can be readily shared with providers and patients; tools to enhance our message and the science; community-based policies
 - Everything – up to the present time we have not been involved regarding this issue

- **Research**
 - Because research is funded only through grants and is rarely supported directly by institutions, and since our expertise is limited, integration of the research component of our organization into a global system is necessary
 - Academic exchanges would create the organizational framework for training young researchers.
 - Studies delineating which toxicants interfere with reproduction: pathology, physiology, reversibility, and practical recommendations

Organizations said the following are the GREATEST CHALLENGES to advance environmental health:

- **Resources**
 - Financial, human, and technical resources are lacking and/or inadequate
 - Competing issues: economic, professional liability concerns, ICD 10 adoption, electronic health record adoption, etc., all of which compete for our members' time, attention, and resources.
 - Competing time constraints: pressures of current health care delivery system; physicians are too busy
 - Dependence on existing public funding means having to deal with a changing political environment and agenda, such that project proposals and applications have to continuously adapt to priorities set in response to national, European and/or international political agendas
 - The need for diverse and multiple private funders
 - The need for core funding in the mid- and long-term, not allocated to specific projects
 - Short-term, project-specific funding can be a limitation to long-term actions
 - [Lack of] logistics and organizational structure to support environmental health

- **Advocacy**
 - Dysfunctional US legislative process
 - Slow pace of implementation of European health and environment protective regulations
 - Prevalent mode of cause and effect (or "evidence-based") determinations as the gold standard of research inquiry and design, so some skepticism about effects of environmental chemicals on reproductive health
 - In Kosovo the economic and political situations are challenging
 - Unsustainable competitiveness and growth policies
 - In Bangladesh, over-population; low literacy and education of population; dust and smoke pollution and inhalation; naturally occurring arsenic; few government standards
 - In Colombia, lack of training and capacity for development due to little government support; unregulated mining leading to river contamination; lack of government control, especially in the Amazon; no worker protection (flour industry uses chemicals). However, FIGO endorsement may make the government more attentive.

- **Training and Capacity Building**
 - [Need for] communication vehicle with members that is appreciated and utilized
 - [Need for] education and toolkits for rapid information transfer with patients
 - [Lack of] awareness of the issues
 - Dysfunctional and deteriorating health care delivery system and [lack of] provision of basic public health protections
 - Shortage of young OB/GYNs in Taiwan
 - Changing behavior
 - Including environmental health in national health professional societies and national health services

- **Research**
 - Convincing evidence and applicability of prevention
 - Integration of Romanian scientific research into the body of global research

- **Other**
 - Overemphasis on medical strategies or individual-level interventions compared with public health or population-level interventions
 - Reduction of maternal mortality
 - The changing health care system in the US
 - [Need] to raise birth rate and increase the population of Korea. The promotion of reproduction is a hurdle in our nation. The main cause of that is higher cost of child rearing in our nation. Young couples do not want to have many children.

The majority of organizations that responded to the survey (14 of 20) said they WORK WITH OR ADVISE their department of health.

Examples of these activities include:

- Providing strategic guidance, support, and counseling
- Advising on research used by department of health
- Serving as a an advisor to legislative and administrative bodies
- Helping to develop and modify policies related to women’s health
- Clinical consultation and outreach
- As a consultant to the Mississippi State Department of Health Perinatal Quality Collaborative for Mississippi
- As organization and individual members participate in educational forums, public testimony and other activities
- Individual members belong to various branches of the health care and educational systems
- Involved with the government's reproductive health initiative; our members are experts and trainers in basic and advanced emergency obstetrics for the healthcare workers. Support vaccination campaigns and become resource persons in module writing

Draft Action Plan for Discussion October 4th, 2015

Below is a starting point for the RDEH action plan. Each of FIGO's four recommendations for preventing exposure to toxic environmental chemicals is outlined followed by a summary of the responses to the preconference survey. While the survey results do not capture all of the expertise that will be represented in the Summit, it provides some insight into work that is already happening, shared challenges that need to be addressed, and potential opportunities to catapult the prevention of exposure to toxic chemicals into a critical strategy for improving reproductive and women's health.

RECOMMENDATION 1. Advocate for policies to prevent exposure to toxic environmental chemicals.

Toxic chemicals and pollution move around the world in food, water, and air because of local, national, and/or international governmental policies that either support or undermine patient and population health. Health professionals should actively engage in partnerships within their communities, nations, and across the globe to advance policies that effectively prevent exposure to toxic chemicals. Recommendations for protection of maternal and children's health from toxic chemicals would equally apply to reproductive health.⁸

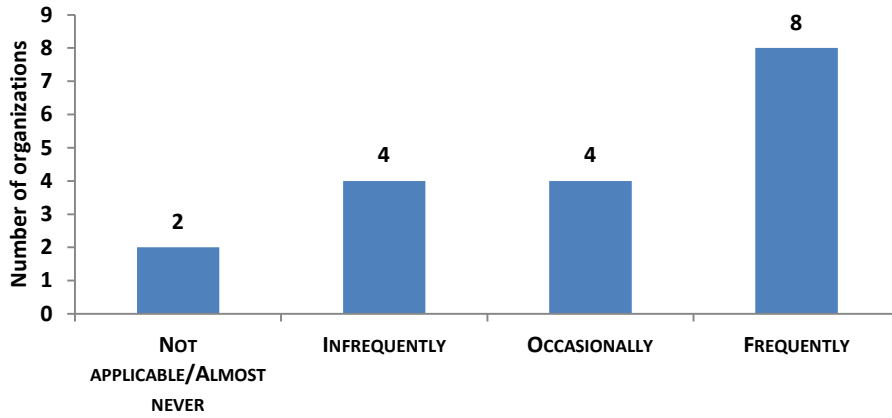
Our starting point:



For many health professional organizations at the Summit, advocating for policies to prevent exposure to toxic environmental chemicals will be a new activity (Figure 2). At the same time, many organizations now frequently advocate for such policies, i.e., American Congress of Obstetricians and Gynecologists, the American Society for

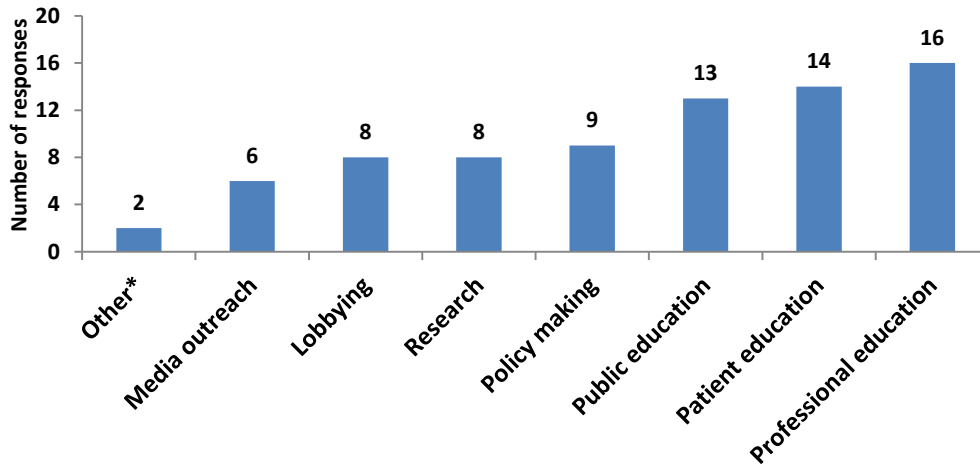
Reproductive Medicine, International Society for Children's Health and the Environment, University of California, San Francisco Pediatric Environmental Health Specialty Unit, Physicians for Social Responsibility, Taiwan Association of Obstetrics and Gynecology, Ministry of Health, Rwanda, and Women in Europe for a Common Future; or occasionally, i.e., FIGO, Japan Society of Obstetrics and Gynecology, Romanian Association of Perinatal Medicine, and the Kosovo Obstetric Gynecology Association.

Figure 2. How often does your organization advocate for policies to prevent exposure to toxic chemicals? (N=18 organizations)



Summit organizations that are already engaged in advocacy to prevent exposure to toxic environmental chemicals undertake a wide-range of activities to meet their goals, especially professional, public, and patient education (Figure 3).

Figure 3. If your organization advocates for policies to prevent exposures to toxic chemicals, please check as many advocacy activities that apply to your organization



* Tree planting and connecting different types of stakeholders together to advance environmental health

Advocacy activities that Summit organizations reported they do particularly well:

- American College of Obstetricians and Gynecologists and the American Society for Reproductive Medicine Committee Opinion on toxic environmental agents - <http://www.acog.org/About-ACOG/News-Room/News-Releases/2013/Environmental-Chemicals-Harm-Reproductive-Health>
- American College of Obstetricians and Gynecologists – advocacy for women’s health across the spectrum/ advocacy for physician reimbursement.
- FIGO- Via national societies lobbying governments to stop smoking in public places that would have an impact on pregnant women; such work is done by many, and FIGO contributes its support.
- Philippine Obstetrical and Gynecological Society - lobbying for smoking cessation campaigns and clean environment; tree planting project nationwide in 2009.
- Japan Society of Obstetrics and Gynecology - reduce anxiety of pregnant women about contact with radioactive contamination by appropriate recommendations.
- Mexican Federation of Colleges of Obstetrics and Gynecology - professional education.
- Physicians for Social Responsibility - in partnership with the American Academy of Pediatrics (AAP) and others, developed and distributed the Pediatric Environmental Health Toolkit, which has provided basic training in environmental health to hundreds of pediatricians, helping to engage some of those trained to advocate for needed health-protective policy changes. Leading members have developed and advocated for numerous public and environmental health-protective policies adopted by numerous state- and national health professional societies, with important impact on debates shaping national policy.
- Women in Europe for a Common Future - in 2014, WECF organized an international symposium on breast cancer and the environment: from knowledge to primary prevention. This event created a unique opportunity to gather a range of stakeholders who have not been in contact together before, to advance environmental health in practice: researchers (Silent Spring Institute, UCSF Program on Reproductive Health and the Environment, International Agency for Research on Cancer (IARC-WHO), International Prevention Research Institute (IPRI), Cancéropôle C.L.A.RA. (France), policy-makers (Ministry of Health, Environment, member of European Parliament, etc.), health professionals (gynecologists, obstetricians, nurses, midwives, etc.), NGOs (women's breast cancer associations, patients association, consumer association). The event had several positive outcomes such as enhancing the collaboration between research bodies (new observer to IARC monograph

development, partnership between C.L.A.R.A. and IARC) and initiating exchanges with key stakeholders in the field of reproductive health (gynecologists, obstetricians, etc.). WECF is a member of Health and Environment Alliance (HEAL), which has a strong track record in science to policy communications and engaging medical experts in advocacy on toxic chemicals with Members of the European Parliament and representatives of the European Commission and EU regulatory agencies.

- Romanian Association of Perinatal Medicine - ongoing PhD research project regarding the influence of hexavalent chromium exposure from a former chemical products factory on human reproduction.
- International Society for Children's Health and the Environment - professional education, policymaking and research.
- Rwandan Ministry of Health - discussion with the communities.
- Kosovo Obstetric Gynecology Association - conferences or seminars with public; interviews in TV and newspaper; direct meetings with members of parliament and government.
- Taiwan Association of Obstetrics and Gynecology - environmental hormone exposure advocacy (the impact of DEHP on fetal-maternal well-being); work with the Department of Environmental Protection & Administration on the revision of the Air Pollution Act specifically on PM2.5.
- Japan – Tight regulation of fish contaminants; pregnant women are well-educated; government regulations tend to respond to patient concerns; information resulting in policy change tends to come from international agencies, such as the FDA.

RECOMMENDATION 2. Work to ensure a healthy food system for all.

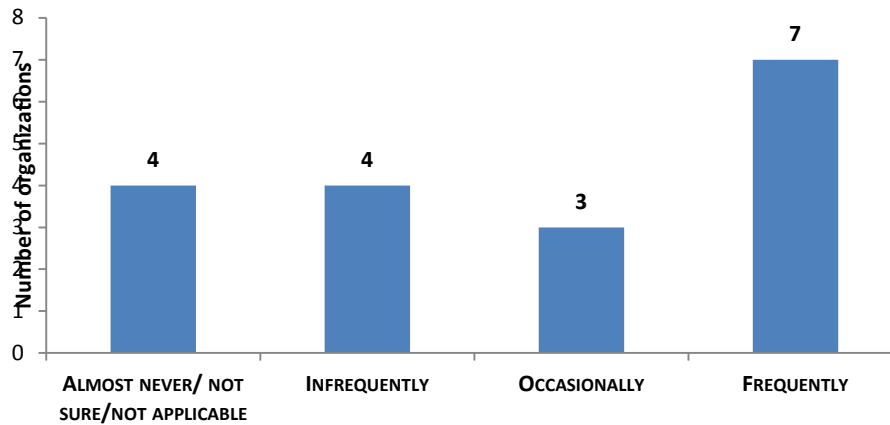
Healthy food is powerful medicine. Encourage policies and practices among patients, health care providers and institutions, and society that foster a healthy food chain, drinking water free of toxic chemicals, and the capacity for women and men who are planning a family, and pregnant and breastfeeding women, to eat fresh fruits and pesticide-free vegetables, legumes, and whole grains daily, to avoid fast foods and other processed foods whenever possible, and to limit foods high in animal fat and fish containing methyl-mercury (e.g., shark, swordfish, king mackerel, and tilefish).^{7,9}

Our starting point:



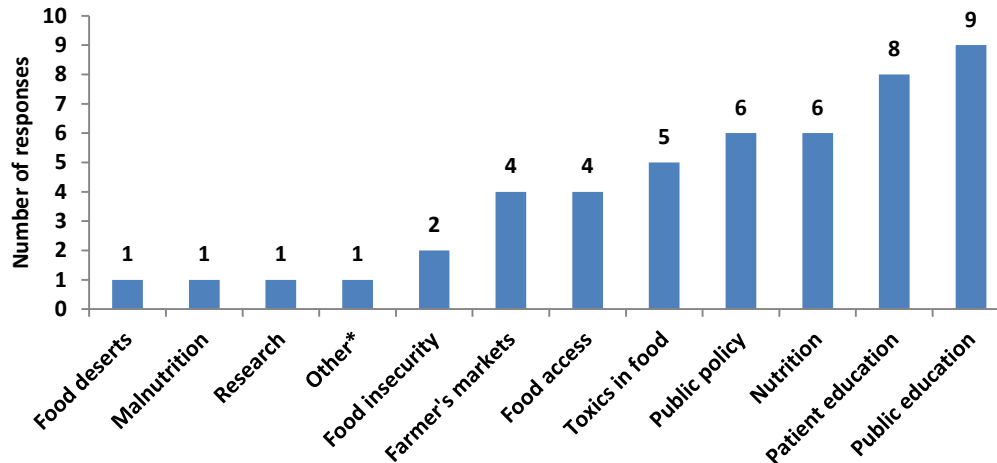
Responses to pre-summit survey (Figure 4) document that at least seven Summit organizations, including from North America, Africa, Asia, and Europe, are frequently working to ensure a healthy food system for all, i.e., University of California, San Francisco, Pediatric Environmental Health Specialty Unit, Physicians for Social Responsibility, Ministry of Health, Rwanda, Ekiti State University/Ekiti State University Teaching Hospital, Nigeria; Society of Obstetrics & Gynaecology of Nigeria, Philippine Obstetrical and Gynecological Society, Women in Europe for a Common Future, and the Kosovo Obstetric Gynecology Association.

Figure 4. How often does your organization advocate for a healthy food system for all? (N=18 organizations)



Organizations that are already engaged in advocating for a healthy food system for all undertake a wide-range of activities to meet their goals, especially professional, public, and patient education (Figure 5).

Figure 5. If your organization advocates for a healthy food system for all please check as many advocacy activities that apply to your organization.



* Development of local and quality productions

Healthy food system activities that Summit organizations reported they do particularly well:

- FIGO – in the beginning of this activity and hope to do more after the meeting.
- Mexican Federation of Colleges of Obstetrics and Gynecology – patient education.
- Physicians for Social Responsibility - A number of PSR chapters, particularly the San Francisco Bay Area Chapter, have been key partners in the Healthy Food in Hospitals campaign integrated fully within institutional work of Health Care Without Harm/Practice Green Health/Healthier Hospitals Initiative to promote healthy food choices within inpatient and outpatient settings.
- University of California San Francisco, Program on Reproductive Health and the Environment - Within the UCSF Medical School food system, work at the Academic Senate Sustainability Committee level led to the removal of meat and poultry produced with non-therapeutic antibiotics in the supply chain, an action now moving to other parts of the UC system in conjunction with many hospital systems throughout California. This has been undergirded by supportive work on healthy food policy supported by efforts within the California Medical Association and other state medical associations that led to groundbreaking policy supportive of broad programmatic work in this arena by the American Medical Association.
- American Society for Reproductive Medicine - there is a special interest group on nutrition and reproductive health. However, ASRM is working with a basic science and IVF lab

scientist organizations to have a workshop in March 2016 on environment and nutrition and reproduction.

RECOMMENDATION 3. Make environmental health part of health care.

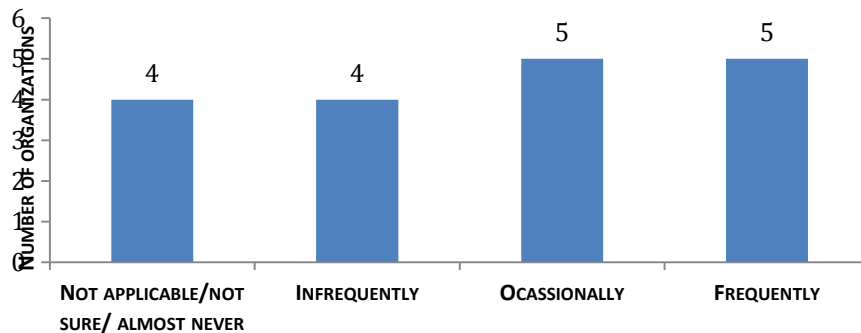
Learn about the toxic chemicals and other harmful environmental exposures common in your patients' communities and workplaces. Take environmental exposure histories during preconception and first prenatal visits. Educate your patients on how to avoid toxic environmental chemicals. Learn about resources in your community that can assist in education. Report identified environmental hazards to appropriate agencies. Work to advance efforts now underway to ensure "Health Care Without Harm" ---to transform the health sector worldwide so that it becomes ecologically sustainable and a leading advocate for environmental health and justice.¹⁰ For example, health care institutions can play a critical role in preventing exposure to toxic chemicals by choosing clean energy and using its purchasing power to shift the market towards safer alternatives to toxic chemicals in construction, food purchasing, and consumer products.

Our starting point

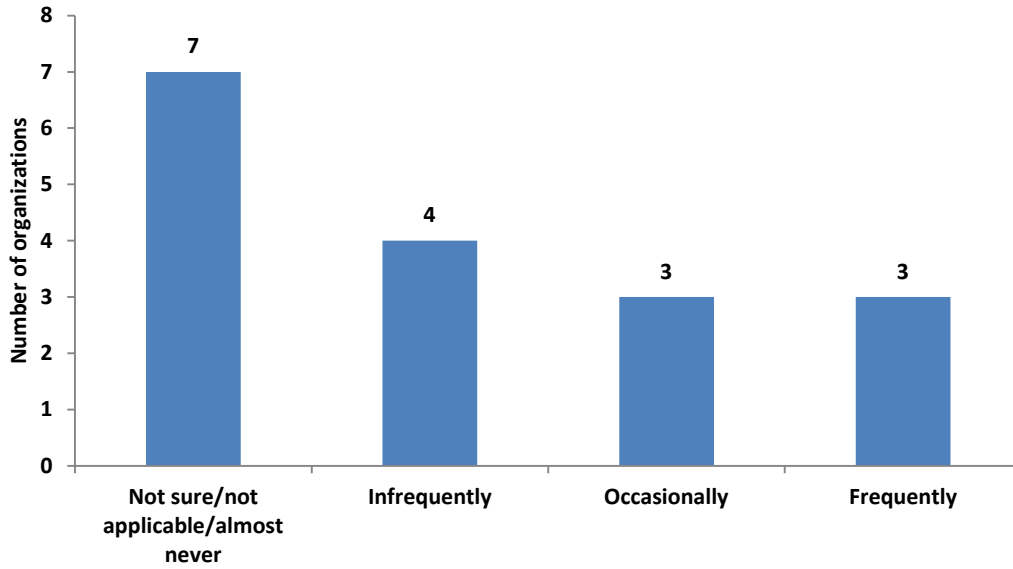


Responses to pre-summit survey (Figure 6) document that at least five Summit organizations, almost exclusively from North America, are frequently working to make environment part of health care, i.e., the University of California, San Francisco, Pediatric Environmental Health Specialty Unit, Physicians for Social Responsibility, International Society for Children's Health and the Environment, American Society for Reproductive Medicine, and the Taiwan Association of Obstetrics and Gynecology.

Figure 6. How often does your organization advocate for making environment health part of health care? (N=18 organizations)

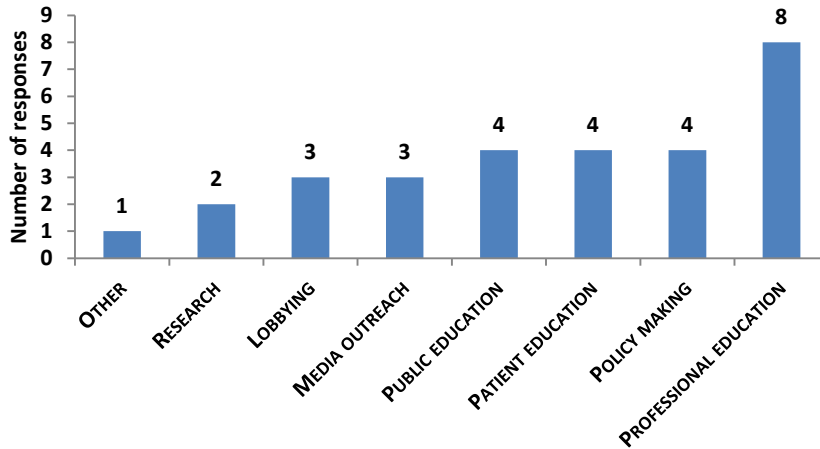


**Figure 8. How often does your organization advocate for environmental justice?
(N=17 organizations)**



Organizations that are engaged in championing environmental justice undertake a wide-range of activities to meet their goals, especially professional education (Figure 9).

Figure 9. If your organization advocates for environmental justice please check as many advocacy activities that apply to your organization.



Championing environmental justice activities that Summit organizations reported they do particularly well:

- Physicians for Social Responsibility - Environmental justice issues are fully integrated into work at national and chapter levels of PSR in multiple projects and ongoing coalition work which includes many organizations centrally focused on environmental and social justice. Current examples include work on impacts of ongoing oil and gas operations on environment and public health of communities in Richmond, California and the Los Angeles-region.
- Women in Europe for a Common Future - organized together with IPEN (International POPs Elimination Network) a side-event during the last meeting of the Parties (COP) to Rotterdam Convention, to raise awareness about asbestos use and its dramatic consequences on human health, urging Parties to list chrysotile asbestos in the Annex of the Rotterdam Convention which triggers information exchange between exporting and importing Parties. 70 participants attended the side event. For more information see: <http://www.wecf.eu/english/articles/2015/05/WECFevent-ChrysotileAsbestos.php>
- Mexican Federation of Colleges of Obstetrics and Gynecology – professional education.
- Philippine Obstetrical and Gynecological Society - part of the lobby for our SINTAX bill to increase taxes on cigarettes.
- American Society for Reproductive Medicine - has an outstanding Public Policy and Advocacy Office in Washington, DC.

Preconference Survey Summary

The Summit will bring together a diversity and wealth of existing expertise on preventing exposure to toxic environmental chemicals together with many organizations that have yet to address this issue. While the survey does not capture all of the expertise that will be represented in the Summit, it provides some insight into work that is already happening, shared challenges that need to be addressed, and potential opportunities to catapult the prevention of exposure to toxic chemicals into a critical strategy for improving reproductive and women’s health.

The majority of organizations (12 of 18) that responded to the survey are already frequently or occasionally engaged in advocating for policies to prevent exposure to toxic chemicals. Approximately half of the organizations (10 of 18) said they frequently or occasionally work to make a healthy food system for all and/or advocate for making environment health part of health care. The FIGO recommendation to champion environmental justice appears to be the

least developed, with only six of 17 organizations reporting that they frequently or occasionally work on this topic. A wide range of activities and successes were reported for each of the FIGO recommendations, which will provide inspiration and ideas for participants to foster uptake of FIGO's recommendations among reproductive health professionals across the globe.

Summit Outcomes

Approximately 50 participants attended the Summit. The Summit was structured so that attendees would participate in both small and large group discussions, examining the advocacy, training and capacity, and research opportunities and challenges of each FIGO Recommendation, as they related to their countries/constituencies. Small group co-facilitators took notes during the discussions and submitted them to the workshop organizers for synthesis into this Draft Discussion Document. All small group discussions were also tape recorded for additional detailed review as necessary.

The following is a summary of the main themes that emerged during these conversations.

Advocacy - Best opportunities

FIGO Recommendation One: “Advocate for policies to prevent exposure to toxic environmental chemicals”

- Greater engagement with impacted populations
- Increased public access and engagement through social media
- Increased focus on, and engagement with, the younger generation
- Multidimensional partnerships with outside groups, like the United Nations and World Health Organization
- Strategic positioning of FIGO leaders on regulatory bodies
- Creation of a repository of best practices
- Advocate for adoption of the constitutional “Right To a Healthy Environment,” which 110 countries have already adopted
- National reform of the Toxic Substances Control Act in the United States
- Build stronger alliances with champions for environmental health and other health professionals
 - American Academy of Pediatrics – Green Book is a strong resource
 - A1 Nurses Organization public policy committee and leadership conference
 - American College of Obstetrics and Gynecology endorsement and commitment

FIGO Recommendation Two: “Work to ensure a healthy food system for all”

- Constitutional “Right To a Healthy Environment” can be used to advocate for the right to a healthy food system
- Leverage the credibility and reputation of “responsible agencies” such as the US Food and Drug Administration (USA) and the Ministry of Health and Family Welfare (Bangladesh) to advance healthy food systems in other countries
- The Committee for Education on Nutrition Health and Preconception in Colombia has had national success with education and buy-in of pregnant women
- Support breastfeeding – Breastfeeding is “start of life care” and leads into other aspects of food/nutrition (FIGO can also support this)
- Gates Foundation: Build up/Scale up

- World Health Organization’s program on food security
- FIGO can promote education, expanding labeling of nutritional information on food and chemicals in consumer products
- Build on studies of the impact of taxes on unhealthy consumption (sugar, fried, and fast food)
- Education about genetically modified foods, connections to pesticides, and food system inequities
- Focus on the first 1000 days – from conception through the first 2 years

Specifically in the United States, and other industrialized countries:

- Take time for lunch and/or adopt a European timetable for meals – make eating food part of a healthier lifestyle
- Explore benefits of home food deliveries, offered by some health care organizations and businesses, on public health and hospital readmission rates

FIGO Recommendation Three: “Make environmental health part of health care”

- Epigenetics – Make people aware of the mechanisms of downstream effects and importance of environmental health to future generations
- Engage major organizations like the March of Dimes to get involved with advocacy about environmental toxins

FIGO Recommendation Four: “champion environmental justice”

- Use social media to engage people to see the direct benefits and implications for the future; engage “Millennials”
- Build on Pope Francis’s comments about caring for others, not harming others, advocating for poor people, and social justice
- Synergize environmental health research with health disparities research
- Start locally by learning how to make your home, community, and work environments more “green”, for example by your choices in energy, transportation, and food

Advocacy - Most important challenges

FIGO Recommendation One: “Advocate for policies to prevent exposure to toxic environmental chemicals”

- Greater physician support of advocacy groups, so politicians will endorse chemical management regulations
- Increased focus on campaigns to help patients push politicians for change
- Because of long-term implications, product testing should include reproductive outcomes before being released to the market
- Diverse non-governmental organizations (NGOs) should coordinate and synchronize their activities to be more effective

- Larger public health issues (clean water, air) that impact reproductive environmental health need to be addressed

FIGO Recommendation Two: “Work to ensure a healthy food system for all”

- The impact of climate change on our food systems is a major challenge
- Barriers to labeling (nutrition, chemicals)
- Challenges with chemicals versus food scarcity
- Partnerships with agribusiness; need for more government support in low-income countries
- Food storage (aflatoxin) issues
- Chemical environment for producing foods (i.e., almost all foods contain formalin – which is 40% formaldehyde - in Bangladesh)
- Barriers to accessing and eating healthy food (i.e., poverty; urban areas in which it is difficult to buy affordable or good-quality fresh food; the proliferation of fast food in developing countries, etc.)
- Research to identify vulnerable populations
- Perceptions about health that begin in the family, and family is a large part of diet
- Challenge economic systems that prioritize profit over health (i.e., infant formula)
- Challenges in implementing methods for prioritizing and assessing food as a health issue during a clinic visit, across all social strata

FIGO Recommendation Three: “Make environmental health part of health care”

- Lack of environmental health in mainstream national medical conferences
- Time constraints in patient visits and who will pay for additional time to discuss environmental exposures

FIGO Recommendation Four: “Champion Environmental Justice”

- Social injustice; poorer women are exposed to more toxins with fewer opportunities to learn and be free of them
- Need to work with industry, local governments, and community groups for environmental justice
- Lack of legal protections for the consumer

Training and capacity - Best opportunities

FIGO Recommendation Two: “Work to ensure a healthy food system for all”

- Educate the community on how to cook healthy foods
- Educate on the “true cost of food”
- Expand health care professional education curriculum
- Grow support between local organic farmers and healthy food system advocacy efforts

FIGO Recommendation Three: “Make environmental health part of health care”

- Constitutional “Right to a Healthy Environment”
- Physician and other health care provider assessment of occupational exposures (chemicals, pesticides, gas, oil, etc.) and the home environment (i.e., lead exposure beyond paint, including pottery, light, etc.)
- Create and utilize preconception checklists specific to the patients’ region
- Expand occupational health to all workers (not just industrial workers)
- Insert epigenetics into medical education and emphasize the relevance of environmental health to reproductive health in medical school;
- Include reproductive environmental health in undergraduate medical education (UME) and graduate medical education (GME) curriculum

FIGO Recommendation Four: “Champion Environmental Justice”

- Create multiple platforms and distribution channels to provide equal access to information about environmental toxins, including print, online, mobile, etc.

Training and capacity - Most important challenges

FIGO Recommendation One: “Advocate for policies to prevent exposure to toxic environmental chemicals”

- Challenges in knowing best tests for compounds

FIGO Recommendation Two: “Work to ensure a healthy food system for all”

- Lack of belief/knowledge among general practitioners regarding the role of the food system and health
- Need to integrate high and low income countries’ needs

FIGO Recommendation Three: “Make environmental health part of health care”

- Expansion of resources for OB/GYNS (i.e., which fish are safe to eat; which exposures are more prevalent in their population; etc.)

FIGO Recommendation Four: “Champion Environmental Justice”

- Equal access to information about environmental toxins

Research - Best opportunities

FIGO Recommendation One: “Advocate for policies to prevent exposure to toxic environmental chemicals”

- Identify and implement evidence-based testing after problem pregnancies; develop biomarkers that lead to epigenetic markers
- Strive for global collaboration on research and develop common methodologies for assessing and preventing exposures to toxic environmental chemicals to advance prevention strategies for all

- Identify common exposures rather than test every chemical (i.e., increased world-wide prevalence of cancer signaled importance of advancing research in this arena)
- Need for appropriate testing of long-term exposures (i.e., prevalence of male research models)
- Need united voice to value observational human studies and experimental non-human studies in decision-making in environmental health
- Identify allies and work toward developing standards for chemical testing
- Advocate for an increase in bio-bank opportunities in multiple countries to demonstrate patterns of exposure to environmental chemicals over populations and time

FIGO Recommendation Three: “Make environmental health part of health care”

- Support research to provide evidence that making lifestyle and/or policy changes will improve health outcomes and prevent exposures

FIGO Recommendation Four: “Champion Environmental Justice”

- Measure body burden of chemicals in pregnant women and/or babies from various countries and socioeconomic and subgroups so that disparities in chemical exposure might be better understood, documented, and ameliorated

Research - Most important challenges

FIGO Recommendation One: “Advocate for policies to prevent exposure to toxic environmental chemicals”

- Contextualizing study group to whole population
- Controlling for multiple exposures in multiple national settings
- Need to strengthen methods used to for environmental health decision-making

Summit Evaluation

Meeting participants were asked to complete a *brief evaluation survey* at the end of the day, and 17 participants did so. The following evaluation results are based on the responses of slightly more than 1/3 (34%) of participants.

- When asked to rate the overall success of the workshop meeting in reaching its goal, all respondents rated the workshop “very successful (88%) or “successful” (12%).
- Of all responses, only 41% also provided suggestions for improving the workshop, such as more structured discussion, more specific goals, and more participants.
- All respondents indicated that they were “confident” (47%) to “very confident” (53%) that the outcomes of the meeting would inform an effective plan of action to address exposure to environmental chemicals.
 - Education of patients and clinicians, buy-in and collaboration among leaders and organizations from different countries, FIGO’s support, and advocacy made respondents feel the most hopeful about the plan of action.
 - Political commitment, generalizability to a variety of global needs, lack of specific targets and goals, and time and resources were suggested as concerns.
- Respondents indicated that the interaction and engagement with other colleagues and learning more about the problems were the most personally valuable parts of the day. Similarly, learning more about the enormity of the problem – and balancing disparate needs - and how to make solutions were the most challenging aspects of day for some.
- When asked what, if anything, respondents were hoping to accomplish or discuss that we did not, some suggested a better defined “plan of action” and more evidence-based research. While outside the scope of the meeting, another person hoped to accomplish “joint collaboration between countries to make a universal protocol to save the future generations.”
- When asked to provide additional comments outside the scope of the questions asked, 70% of the respondents expressed gratitude and appreciation for the workshop, one participant commenting, “This gives me so much encouragement!”

Resources

Health Professional Society Statements

- **American College of Obstetricians and Gynecologists and the American Society for Reproductive Medicine**
Joint Committee Opinion (#575): Reproductive Health and the Environment, October 2013, <http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Exposure-to-Toxic-Environmental-Agents>
 - **Royal College of Obstetricians and Gynaecologists**
Chemical Exposures During Pregnancy: Dealing with Potential, but Unproven, Risks to Child Health. Scientific Impact Paper No. 37, May 2013. <https://www.rcog.org.uk/en/guidelines-research-services/guidelines/sip37/>
 - **The Endocrine Society**
Diamanti-Kandarakis E, Bourguignon JP, Giudice LC, Hauser R, Prins GS, Soto AM, Zoeller RT, Gore AC. 2009 Endocrine-Disrupting Chemicals: An Endocrine Society Scientific Statement. Endo Rev 30(4):293-342.
<https://www.endocrine.org/~media/endosociety/Files/Advocacy%20and%20Outreach/Position%20Statements/All/EndocrineDisruptingChemicalsPositionStatement.pdf>
- More comprehensive and detailed statements published by the Endocrine Society on the subject of Endocrine Disrupting Chemicals can be obtained through the following links:
- Endocrine Society Scientific Statements: <http://www.endocrine.org/endocrine-press/scientific-statements>
- Endocrine Society Position Statements: <http://www.endocrine.org/advocacy-and-outreach/position-statements>
- **World Federation of Public Health Associations**
Resolution on "Safer Chemical Policies" 2008
<http://www.wfpha.org/images/resolutions/environmental/SaferChemicalsPolicies.pdf>

Health Professional Statements Database

Compiled by the University of California, San Francisco Program on Reproductive Health and the Environment <http://www.berkeley.edu>

Patient and Health Care Institution Education

- **Nesting** - Women in Europe for a Common Future - Partners in eight countries have contributed to the success of the nesting concept. It is translated into **English, Greek, Hungarian, Dutch, French, German, Spanish, and Estonian**. Due to differences in mentality and local culture, the website content is culturally sensitive and differs per country. <http://www.wecf.eu/english/campaigns/2008/nesting.php>
- **Choosing our Future** – A comic strip with educational background and resource sections produced by the Health and Environment Alliance (HEAL), which includes 70 members representing groups across Europe. In English, French, and Dutch <http://www.env-health.org/policies/chemicals/choosing-our-future/>
- **All That Matters** – University of California San Francisco Program on Reproductive Health and the Environment. A series of patient education materials and online resources, including Toxic Matters, Cuestiones de Salud Brochure (Spanish translation of Toxic Matters), Work Matters, Pesticides Matter, Food Matters, and What to Eat? <http://prhe.ucsf.edu/toxic-matters>
- **Pediatric Environmental Toolkit** - Physicians for Social Responsibility — The Toolkit is a combination of easy-to-use reference guides for health providers and user friendly health education materials on preventing exposures to toxic chemicals and other substances that affect infant and child health. The materials are visually appealing, practical and easy to use. The Toolkit is endorsed by the [American Academy of Pediatrics \(AAP\)](#). <http://www.psr.org/resources/pediatric-toolkit.html>
- **The Story of Health** - This eBook grounds the science of health in stories of fictional people, their families, and communities to enable readers to explore the risk factors for disease as well as how to prevent disease and promote health and resilience. Using the setting of a family reunion as a backdrop, the book explores how multiple environments influence our health across the lifespan. <http://coeh.berkeley.edu/ucpehsu/soh.html> The eBook offers **FREE continuing medical education credits** offered by the Centers for Disease Control and Prevention/the Agency for Toxic Substances and Disease Registry. Each story is accredited separately with information available in the eBook, and registration for credits here: http://www.atsdr.cdc.gov/emes/health_professionals/index.html.
- **Chemicals Health Monitor** – a project of Health and Environment Alliance (HEAL), this online source makes the link between **chemicals** and diseases, such as breast, prostate and testicular cancer and other reproductive problems. www.chemicalshealthmonitor.org/

- **CHEM Trust** – a UK charity that has produced a series of publications covering chemicals impacts on human health and wildlife, including reviews of science linking chemical exposure to different diseases. www.chemtrust.org.uk
- **WHO Global Alliance to Eliminate Lead in Paint** – a global initiative to prevent children’s exposure to lead from paints containing lead and to minimize occupational exposures to lead paint. http://www.who.int/ipcs/assessment/public_health/gaelp/en
- **Health Care Without Harm** - is an international coalition of hospitals and health care systems, medical professionals, community groups, health-affected constituencies, labor unions, environmental and environmental health organizations and religious groups working to transform the health sector worldwide, promoting environmental health and justice. <https://noharm.org>
- **Committee for Sustainable Development in Health** - (C2DS) French-based network of health professionals working towards inclusion of sustainable development practices in hospitals. C2DS, the committee for sustainable development in healthcare, is an independent French nonprofit organization, founded in 2006 by healthcare professionals committed to sustainable development. The aim of the C2DS is to create awareness among the key players of the healthcare sector and to promote the advantages of better practices in order to manage the environmental, human, and economical impact of its activities. <http://c2ds.eu/>
- **Practice Green Health** - is the source for environmental solutions for the healthcare sector and lends support to create better, safer, greener workplaces and communities. It is a nonprofit membership organization founded on the principles of positive environmental stewardship and best practices by organizations in the healthcare community. <https://practicegreenhealth.org/about>
- **Healthier Hospitals Initiative** - is a U.S. campaign to implement a completely new approach to improving environmental health and sustainability in the health care sector. <http://www.healthierhospitals.org>

Publications

- Woodruff TJ, Janssen SJ, Guillette LJ, Giudice LC, editors. Environmental Impacts on Reproductive Health and Fertility. Cambridge Press, London, 2009.
- Bergman, A, Heindel JJ, Jobling S, Kidd KA, Zoeller RT. State of the Science of Endocrine Disrupting Chemicals. WHO/UNEP 2012.
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- Sutton P, Woodruff TJ, Perron J, Stotland N, Conry JA, Miller MD, Giudice LC. Toxic environmental chemicals: the role of reproductive health professionals in preventing harmful exposures. Am J Obstet Gynecol. 2012 Sep; 207(3):164-73. PMID: 22405527
- Gore AC, Crews D, Doan LL, La Merrill M, Patisaul H, Zota A. Introduction to endocrine disrupting chemicals (EDCs). A guide for public interest organizations and policy makers. The Endocrine Society/IPEN. December 2014
<http://www.endocrine.org/~media/endosociety/Files/Advocacy%20and%20Outreach/Important%20Documents/Introduction%20to%20Endocrine%20Disrupting%20Chemicals.pdf>
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<https://www.aap.org/en-us/about-the-aap/Committees-Councils-Sections/Council-on-Environmental-Health/Pages/Pediatric-Environmental-Health-Third-Edition.aspx>
- World Health Organization: Children's Health and the Environment: A Global Perspective. A Resource Manual for the Health Sector. Geneva, Switzerland: World Health Organization; 2005. http://apps.who.int/iris/bitstream/10665/43162/1/9241562927_eng.pdf
- Landrigan PJ and Etzel RA, Textbook of Children's Environmental Health, Oxford University Press, USA. January 2014 <http://ukcatalogue.oup.com/product/9780199929573.do>
- Jensen GK, Health costs in the EU - How much is related to EDCs? June 2014.
http://www.env-health.org/IMG/pdf/18062014_final_health_costs_in_the_european_union_how_much_is_realted_to_edcs.pdf

Summit Participant Organizations Websites

- Latin American Federation of Obstetrics and Gynecology www.flasog.org
- University of California San Francisco Program on Reproductive Health and the Environment <http://prhe.ucsf.edu/clinical-practice>
- American College of Obstetrics and Gynecology www.acog.org
- International Federation of Gynecology and Obstetrics www.igo.org
- Japan Society of Obstetrics and Gynecology <http://www.jsog.or.jp/>
- University of California San Francisco Pediatric Environmental Health Specialty Unit <http://coeh.berkeley.edu/ucpehsu/homeC.html>
- Physicians for Social Responsibility <http://www.psr.org>
- Mexican Federation of Colleges of Obstetrics and Gynecology www.femecog.org.mx
- American Society for Reproductive Medicine <https://www.asrm.org/splash/splash.aspx>
- Korean Society of Obstetrics and Gynecology <http://ksog.org>
- Asociatia Romana de Medicina Perinatale www.medicinaperinatale.ro
- International Society for Children's Health and the Environment <http://ische.ca>
- Republic of Rwanda Ministry of Health www.moh.gov.rw
- La Federación Colombiana de Obstetrica y Ginecología www.FECOLSOG.org
- Women in Europe for a Common Future www.wecf.eu
- The Society of Obstetricians and Gynaecologists of Canada <http://sogc.org>
- Aga Khan University <http://www.aku.edu>
- Kosovo Obstetrics and Gynecology Association <http://www.shogjk.net/en/>
- Ekiti State University Teaching Hospital <https://eksuth.wordpress.com>
- Philippine Obstetrical and Gynecological Society www.pogsinc.org
- Taiwan Association of Obstetrics and Gynecology www.taog.org.tw

Related Action Plans on Environmental Health

UN Millennium Development Goals

The FIGO Opinion states that “reducing the disease burden of toxic environmental exposures from food, air, water, and other sources of pollution will contribute importantly to advancing the UN Millennium Development Goals of eradicating extreme poverty and hunger, reducing child mortality, improving maternal health, and ensuring environmental sustainability.” For example, the FIGO Opinion recommendation #2, work to ensure a healthy food system for all, specifically overlaps with the Millennium Development Goal of improved drinking water. A complete list of all the Millennium Development Goals can be found at: http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20PC%20final.pdf

UN Sustainable Development Goals

The Rio outcome included establishing a Working Group to develop a set of sustainable development goals for consideration and action by the UN General Assembly. There are 17 goals, many of which intersect with women and children’s health and the environment. For example, the first goal states, “poverty eradication is the greatest global challenge facing the world today and an indispensable requirement for sustainable development.” <https://sustainabledevelopment.un.org/owg.html>

World Health Organization

European Environment and Health Project

According to the WHO’s European Environment and Health Project website, “In the late 1980s, European countries initiated the first ever process to eliminate the most significant environmental threats to human health. Progress towards this goal is driven by a series of ministerial conferences held every five years and coordinated by WHO/Europe.

The conferences are unique, bringing together different sectors to shape European policies and actions on environment and health. The first conference was held in Frankfurt in 1989, followed by Helsinki in 1994 and London in 1999. The Fourth conference took place in Budapest in 2004 with the theme “The future for our children”.

The Fifth and latest Conference was held in Parma, Italy, on 10-12 March 2010. The Parma Declaration is the first time-bound outcome of the environment and health process. Governments of the 53 European Member States set clear-cut targets to reduce the adverse health impact of environmental threats in the next decade.

The European Environment and Health Process will continue towards the Sixth Ministerial Conference on Environment and Health in 2016.”

<http://www.euro.who.int/en/health-topics/environment-and-health/pages/european-environment-and-health-process-ehp>

The European Environment and Health Process strongly encouraged and pushed States in Europe to release action plans on health and environment, and its priority goals are also found in European national action plans.

Children’s Environment and Health Action Plan for Europe (CEHAPE)

This Action Plan is part of the European Environment and Health Process, initiated in the late 1980s, described above. It is a key example of action plans on health and the environment and it was adopted in 2004 during a Ministerial conference of states members of the WHO European region. The Action Plan has four regional priority goals, including number 4: “reducing the risk of disease and disability arising from exposure to hazardous chemicals (such as heavy metals), physical agents (e.g. excessive noise) and biological agents, and to hazardous working environments during pregnancy, childhood and adolescence.”

http://www.euro.who.int/_data/assets/pdf_file/0006/78639/E83338.pdf

European Environment and Health Strategy (SCALE)

In 2003, the European Commission, Parliament and Economic and Social Committee released a European Environment and Health Strategy called SCALE, with a focus on children. An Action Plan 2004-2010 was adopted to implement SCALE Strategy. <http://www.euractiv.com/climate-environment/environment-health-strategy-scale/article-117480>

2nd French environment and health action plan 2009-2014

This action plan states: “By their very nature, environmental health issues concern the whole population and involve a broad spectrum of players: environment protection groups, associations of sick and injured persons, trade unions, employers’ organizations and numerous government ministries (ecology, health, labour, agriculture, economy) and research organisations and teams. The second national environment and health action plan (neHAp) was drawn up jointly by all these stakeholders ... [and] its purpose is to provide an overview of the main challenges, and to describe and prioritise measures for 2008-2013 on the basis of a common understanding. It defines a series of joint, concerted actions to be implemented on the national and local levels.”

http://www.developpement-durable.gouv.fr/IMG/pdf/Health_environment_second_national_action_plan_anglais-2.pdf

In 2013, the French national Health Council of Public Health (HCSP) released an evaluation report of the 2nd national Health and environment action plan (NEHAP).

<http://www.hcsp.fr/Explore.cgi/avisrapportsdomaine?clefr=407>

The following successful strategies for an action plan were based on the findings of the formal evaluation of the 2nd French Environment and Health Action Plan 2009-2014. These general points can help guide the formulation of the RDEH action plan. Specifically:

- Activities should be focused and precise enough to allow for concretization;
- Conduct a preliminary mapping of existing /available information, database, resources available on a topic; (see resources section later in this document);
- Clarify the roles of stakeholders involved;
- Identify relevant indicators to monitor progress of actions; and
- Involve competent stakeholders dealing with the topic of action at an early stage.

Key International Conventions for Protecting Children from Hazardous Chemicals

From: Trasande L, Massey RI, DiGangi J, Geiser K, Olanipekun AI, Gallagher L. How developing nations can protect children from hazardous chemical exposures while sustaining economic growth. *Health Aff (Millwood)*. 2011; 30:2400-9.

EXHIBIT 1

Key International Conventions For Protecting Children From Hazardous Chemicals

Convention	Policy impact
Basel Convention (signed in 1989)	Minimizes, with the aim of eliminating, the generation and transboundary movement of hazardous waste
Rotterdam Convention (signed in 1998)	Ensures international communication about the international trade in thirty-nine pesticides and industrial chemicals that have been banned or severely restricted for health and environmental reasons
Stockholm Convention (adopted in 2001, came into force in 2004)	Protects human health and the environment from persistent organic pollutants (organic compounds such as the pesticide DDT that, when released into the environment, do not readily degrade through biological, chemical, or other processes) Eliminates the production, use, import, and export of these chemicals and requires the environmentally sound destruction of them as wastes Covers 21 chemicals currently

SOURCES (1) United Nations Environment Programme, Secretariat of the Basel Convention. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal [Internet]. Geneva: The Secretariat; [cited 2011 Nov 10]. Available from: <http://archive.basel.int/text/17Jun2010-conv-e.pdf>. (2) United Nations Environment Programme, Secretariat of the Rotterdam Convention. Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade [Internet]. Geneva: The Secretariat; [revised 2008; cited 2011 Nov 10]. Available from: http://www.pic.int/Portals/5/en/ConventionText/RC%20text_2008_E.pdf. (3) United Nations Environment Programme, Secretariat of the Stockholm Convention. Stockholm Convention on Persistent Organic Pollutants (POPs) [Internet]. Geneva: The Secretariat; [amended 2009; cited 2011 Nov 10]. Available from: <http://chm.pops.int/Portals/0/download.aspx?d=UNEP-POPS-COP-CONVTEXT.En.pdf>.

Strategic Approach for International Chemical Management (SAICM)

SAICM is a policy framework adopted in 2006 that aims by 2020 to have all chemicals produced and used in ways that minimize significant adverse impacts on human health and the environment. SAICM is a multi-stakeholder and multi-sector process, which ensures endorsement at the highest political levels, provision for resource mobilization, and formal endorsement by key intergovernmental organizations. SAICM provides an Overarching Policy Strategy on five issues: risk reduction, knowledge and information, governance, capacity-building and technical cooperation and illegal international traffic. A Global Plan of Action serves as a working tool and guidance document to support implementation.

http://www.saicm.org/images/saicm_documents/saicm%20texts/SAICM_publication_ENG.pdf

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3. Woodruff TJ, Carlson A, Schwartz JM, Giudice LC. Proceedings of the summit on environmental challenges to reproductive health and fertility: executive summary. *Fertil Steril*. 2008; 89:e1-e20.
4. World Health Organization. Global Assessment of the State-of-the-Science of Endocrine Disruptors. Geneva, Switzerland: An assessment prepared by an expert group on behalf of the World Health Organization, the International Labour Organisation, and the United Nations Environment Programme 2002 Contract No.: WHO/PCS/EDC/02.2.
5. World Health Organization, United Nations Environment Programme. State of the Science of Endocrine Disrupting Chemicals - 2012. Geneva, Switzerland:2013 Contract No.: 6 February.
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