



UNEP
GLOBAL
MERCURY
PARTNERSHIP

Mercury in
products Area*

Monday 30 November 2020
3:00 pm – 5:00 pm CET

**Mercury in skin-lightening products:
towards the 2020 deadline**
Webinar on mercury-added products - #2

UNEP GLOBAL MERCURY PARTNERSHIP

Mercury in products Area*



AGENDA

Opening remarks

Rodges Ankrah, US Environmental Protection Agency, Co-chair of the Global Mercury Partnership Advisory Group

Thomas Groeneveld, US Environmental Protection Agency, Coordinator of the Partnership Area on Mercury in Products

Marianne Bailey, Programme officer for capacity-building and technical assistance, Minamata Convention Secretariat

Overview of current knowledge on mercury in skin-lightening products

Mercury in skin-lightening products: An issue of global concern

Ellen Roskam, Consultant, Chemical Safety and Health Unit, World Health Organization

Mercury exposure associated with use of skin-lightening products in Jamaica

Phylicia Ricketts, Lecturer, Department of Physics, Radioecological Lab, University of the West Indies

Key findings from Zero Mercury Working Group (ZMWG) skin lightening products campaign

Michael Bender, Mercury Policy Project Director and ZMWG co-coordinator

Implementation and Enforcement Issues

David Lennett, Senior Attorney, Natural Resources Defense Council

Question and Answer Session

Panel discussion: experiences and lessons learned from countries

Inter-ministerial collaboration and commitment to eliminate mercury from skin lightening products

Lakshman Gamlath, Deputy Director General, Environment Health and Food safety, Ministry of Health, Sri Lanka

Regional cooperation and commitment towards reducing human contamination from mercury

Anne Nakafeero, Senior District Support Officer, National Environment Management Authority and Minamata Convention National Focal Point, Uganda

Raising public awareness about mercury skin lightening products

Isabelle Mananga Ossey, Founder, Label Beauté Noire, France

Question and Answer Session

Closure

Thomas Groeneveld, US Environmental Protection Agency, Coordinator of the Partnership Area on Mercury in Products



Opening remarks and scene-setting



Rodges Ankrah

US Environmental Protection Agency, Co-chair of the Global Mercury Partnership Advisory Group

Thomas Groeneveld

US Environmental Protection Agency, Coordinator of the Partnership Area on Mercury in Products

Marianne Bailey

Programme officer for capacity-building and technical assistance, Minamata Convention Secretariat

Overview of the UNEP Global Mercury Partnership

web.unep.org/globalmercurypartnership



- Voluntary multi-stakeholder network initiated in 2005
- Over 200 partners from Governments, IGOs, NGOs, industry, academia

Priority focus:

- Support timely and effective implementation of the Convention
 - Provide knowledge and science on mercury
 - Deliver outreach and awareness raising towards global action
-

UNEP GLOBAL MERCURY PARTNERSHIP

Mercury in products Area*

Partnership Area Lead:
Tanya Hodge-Mottley, U.S. Environmental
Protection Agency



ISSUE

Large amounts of mercury are used globally in numerous products and manufacturing processes. Yet, for most products, effective alternatives to mercury are available.

Transition success has been demonstrated in thermometers, switches and relays, batteries other than button cells, thermostats, HID auto-discharge lamps, and sphygmomanometers.

Affordable alternatives to mercury are available for most products, but commercially cost-effective alternatives for some products are further needed.

Moving away from mercury-added products is the most effective means to avoid mercury in waste. Sound management should consider all stages of the product's lifecycle. Clear regulation can prompt manufacturers to produce mercury-free products.

RELEVANT PROVISIONS OF THE MINAMATA CONVENTION ON MERCURY

Under **Article 4 (Mercury-Added Products)**, Parties shall not allow 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. Parties shall also take measures for the mercury-added products listed in **Part II of Annex A**.

Amongst other, Parties shall also discourage the manufacture and distribution in commerce of mercury-added products not covered by any known use prior to the date of entry into force of the Convention for them, unless an assessment of the risks and benefits of the product demonstrates environmental or human health benefits.

The Secretariat shall collect and maintain information on mercury-added products and their alternatives and make such information publicly available.



OBJECTIVE

The objective of the Partnership Area is to phase out and eventually eliminate mercury in products and to eliminate releases during manufacturing and other industrial processes via environmentally sound production, transportation, storage, and disposal processes.



STRATEGY

The Partnership Area seeks to achieve its goals through:

- Identifying and implementing successful approaches for reducing or eliminating mercury in products where there are effective alternatives;
- Promoting environmentally sound production, transportation, storage, and disposal procedures; and
- Providing a partner-driven forum for exchanging information and discussing strategies for achieving goals and objectives.



CONTRIBUTION TO THE IMPLEMENTATION OF THE MINAMATA CONVENTION

The Partnership Area intends to support countries in implementing their obligations in relation to Article 4 of the Minamata Convention, including through:

- Exchanging and disseminating technical information; and
- Engaging scientific and business communities.

The Partnership Area also contributes to work undertaken by the Conference of the Parties to the Minamata Convention in relation to customs codes.

UNEP Global Mercury Partnership Area on “Mercury in Products”



Overview of current knowledge on mercury in skin-lightening products



**World Health
Organization**

Mercury Skin Lightening Products and Health

Ellen Roskam, PhD, MPH
Chemical Safety and Health Unit
Department of Environment, Climate Change and Health

Global Mercury Partnership Webinar
November 30, 2020

Doll

LIGHTENING MILKY MASK SHEET
白宝盒雪肤焕白牛奶面膜

READY 2 WHITE
STEP 1 MILKY
STEP 2 LIGHTENING



Cathy Doll

READY 2 WHITE
WHITE BOOSTING CREAM
白宝盒醒肤润颜霜

Available at **KARMART** www.karmarts.com

Milk Plus Whiting Q10 Facial Cream

Whiting Body Lotion, Skin Refining Whiting Q10, Whiting Q10 Salt Scrub, Whiting Q10 Facial Cream, Whiting Q10 Body Cream, Whiting Q10 Body Lotion, Whiting Q10 Body Soap.

BEAUTY BUFFET
The Most Delicious Beauty Shop In Town!

Milk Plus Whiting Q10 Facial Cream

โดนมพไทยที่ขยดที่ลด
柔滑 细腻 有弹性

LAZADA

SNAIL WHITE
THAILAND'S Best Selling Facial Cream
泰国最大爆面霜!

NAMUJ

Health impacts of mercury in skin lightening products

- kidney damage
- neurological damage
- pregnant women are particularly vulnerable: mercury can cause developmental risks to the fetus
- skin rashes, discoloration and scarring
- reduction in the skin's resistance to bacterial and fungal infections
- anxiety, depression, psychosis



Actions needed to protect the public

- establishing or improving legislation;
- implementing compliance & enforcement strategies for legislation, including training for customs agents & identification of manufacturers & supply chains;
- strengthening laboratory capacity to test for mercury in the products;
- advocacy campaigns run by national health authorities, & public awareness campaigns to inform consumers about health risks;
- increasing awareness among health workers of health risks of skin lightening products in general to inform and educate patients and the community.

MERCURY IN SKIN LIGHTENING PRODUCTS

Mercury is a common but dangerous ingredient found in skin lightening creams and soaps. Beauty standards promoted by media, advertising and marketing reinforce the bias that lighter skin tone is more desirable than darker skin tone. Skin lightening creams and soaps are commonly used in many African, Asian and Caribbean nations (1, 2). They are also used among dark-skinned populations in Europe and North America (3–5). Mercury salts inhibit the formation of melanin, resulting in a lighter skin tone (6, 7). The Minamata Convention on Mercury establishes a limit of 1 mg/kg (1 ppm) for skin lightening products (8), yet many cosmetic products contain mercury levels higher than that amount to

increase whitening effect (9, 10). Despite having been banned in many countries, mercury-containing products are often easily obtainable (11).

Mercury can be eliminated from skin lightening products by working with health and environmental ministries and raising public awareness about the dangers to health from mercury and other hazardous chemicals in skin lightening products. To stop the manufacture, import and export of skin lightening products in line with the Minamata Convention, regulatory actions by governments are needed – including training of customs agents – as well as major media and advocacy campaigns.

Use, production and availability

- Skin lightening products are used worldwide, but their use is particularly widespread in many African, Asian and Caribbean countries (1, 12). Skin lightening products are used by both women and men (13).
- The skin lightening industry is one of the fastest growing beauty industries worldwide and is estimated to be worth US\$ 31.2 billion by 2024 (14). In India, for example, the skin lightening industry (including products with and without mercury) represents 50% of the skincare market and is estimated to be worth US\$ 450–535 million (14).
- Mercury-containing skin lightening products are manufactured in many countries and areas, including Bangladesh (15), China (16, 17), Dominican Republic (18), Hong Kong SAR (China) (15), Jamaica (15), Lebanon (19), Malaysia (15), Mexico (17, 20), Pakistan (21), Philippines (22), Republic of Korea (15), Thailand (23, 24), and the United States of America (25).
- Mercury-containing skin lightening products are available for sale over the Internet, promoted online on social media sites, and sold through mobile apps. According to the United States Food and Drug Administration (FDA), these products are often manufactured abroad and sold illegally in the United States, often in small shops and informal markets catering to Latino, Asian, African or Middle Eastern communities. Consumers also purchase them in other countries and bring them back to their country (26). The toxic trade of often illegal mercury-added skin lightening products is a global crisis expected to only worsen with skyrocketing demand, especially in Africa, Asia and the Middle East (15).
- A 2011 survey funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety noted that individuals from Brazil, Kyrgyzstan, Mexico and the Russian Federation believe that mercury-containing skin lightening products are easy to obtain (11).

Mercury in Skin Lightening Products

Information Note

WHO, 2019

Available in:
Arabic, Chinese, English,
French, Russian, Spanish

<https://www.who.int/publications/i/item/WHO-CED-PHE-EPE-19.13>

**WHO video animation:
Mercury in skin lightening products - a threat to
health
WHO, 2020**

**Available in:
Arabic, Chinese, English, French, Russian, Spanish**

<https://www.who.int/health-topics/chemical-safety#>

THANK YOU!

rosskame@who.int

Mercury exposure associated with use of skin lightening products in Jamaica

Phylcia Ricketts, PhD

Department of Physics, the University of the West Indies (UWI)-Mona campus, Kingston, Jamaica

at

UNEP Global Mercury Partnership webinar on mercury-added products, November 30, 2020



Research background



Mercury Exposure Associated with Use of Skin Lightening Products in Jamaica

Phylicia Ricketts¹, Christopher Knight², Andre Gordon³, Ana Boischio³, Mitko Voutchkov⁴

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Background. Skin bleaching is a major health concern among Jamaicans. A common ingredient in skin lightening products is mercury. Mercury is a toxic substance that can cause damage to the gastrointestinal tract, nervous system and kidneys.
Objective. The objectives of this study were to use different analytical techniques to measure mercury concentrations in popular skin lightening products used in Jamaica and to assess individual levels of mercury exposure based on product usage.
Methods. Sixty skin lightening products were purchased from different vendors across various locations in Jamaica. Each product was initially screened for mercury using a portable handheld energy dispersive X-ray fluorescence (XRF) analyzer. In addition, 25 out of 60 products were further measured using cold vapor atomic absorption spectroscopy (CVAAS). Questionnaires were distributed to users of skin lightening products to determine their usage patterns.
Results. Six products had mercury concentrations above the United States Food and Drug Administration (FDA) allowable limit of 1 ppm, of which three products contained alarmingly high concentrations (i.e. > 400 ppm). The majority of products (57 out of 60) had mercury concentrations below 10 ppm. The mercury concentrations in skin lightening products ranged from 0.05 ppm to 17,547 ppm. In our sample, 51% of women and 49% of men used skin products more than once per day.

Biological Trace Element Research
<https://doi.org/10.1007/s12011-019-01965-3>

Risk-Benefit Assessment for Total Mercury, Arsenic, Selenium, and Omega-3 Fatty Acids Exposure from Fish Consumption in Jamaica

Phylicia Ricketts¹, Mitko Voutchkov¹, Hing Man Chan²

Received: 3 September 2019 / Accepted: 29 October 2019
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Abstract

Fish is important in the traditional diet of Jamaicans, and the fishing industry contributes to social and economic development, as well as food security in Jamaica. However, there are associated health risks from contaminant exposure. The aim of this paper was to use risk-benefit analysis methods to determine the best fish species for consumption. Composite samples consisting of 14 fish



Chemosphere 164 (2016) 462–468

Contents lists available at ScienceDirect

Chemosphere

journal homepage: www.elsevier.com/locate/chemosphere



Assessment of fish consumption and mercury exposure among pregnant women in Jamaica and Trinidad & Tobago

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^d Faculty of Medical Sciences, The University of the West Indies, St. Augustine, Trinidad and Tobago

HIGHLIGHTS

- The preference of maternal fish intake is dependent on the country's captured fish production.
- Pregnant women in the Caribbean are susceptible to mercury exposure from fish intake.
- Consumers of large ocean pelagic fish have higher placental mercury concentrations.
- Consumers of small pelagic and reef finfish have lower placental mercury concentrations.



Reproductive Toxicology

journal homepage: www.elsevier.com/locate/reprotox

Factors associated with mercury levels in human placenta and the relationship to neonatal anthropometry in Jamaica and Trinidad & Tobago

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ARTICLE INFO

Article history:
 Received 21 June 2016
 Received in revised form 18 April 2017
 Accepted 27 April 2017

ABSTRACT

The aim of this study was to investigate the mercury levels in human placenta and its relationship to neonatal anthropometry for a group of selected pregnant women in Kingston and Manchester in Jamaica and St. Joseph in Trinidad & Tobago.

Aims of this presentation



- Identify the skin lightening products used by a population (market survey)
- Present the mercury concentrations in popular skin lightening products
- Determine the usage patterns of skin lightening products
- Highlight strategies used in public awareness of mercury exposure

Challenges

1. Mercury is an active ingredient in skin lightening products

2. Skin bleaching is a major concern in Jamaica

3. Jamaica's obligation to reduce mercury exposure under the Minamata Convention

Objectives

Which skin lightening products (if any) contains mercury?

What is the risk of mercury exposure from using skin lightening product?

Do people know about the adverse health effects of mercury?

Mercury Exposure Associated with Use of Skin Lightening Products in Jamaica

Phylicia Ricketts¹ 
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Introduction

Skin lightening is the use of chemicals to reduce the amount of melanin in the skin, resulting in a lighter skin complexion.¹ The skin lightening phenomenon in Jamaica is believed to be a legacy of British colonialism, where there was social discrimination based on skin complexion. Individuals with light colored skin were portrayed as more beautiful and wealthier than persons with dark colored skin. The skin bleaching trend is perpetuated by the influence of mass media and popular culture, which shows light colored skin as an ideal preference of beauty.² Most skin lightening products are only intended to be used for a short period of time, mainly for the gradual fading of dark spots due to acne, freckles and skin conditions such as psoriasis and eczema.

Background. Skin bleaching is a major health concern among Jamaicans. A common ingredient in skin lightening products is mercury. Mercury is a toxic substance that can cause damage to the gastrointestinal tract, nervous system and kidneys.

Objective. The objectives of this study were to use different analytical techniques to measure mercury concentrations in popular skin lightening products used in Jamaica and to assess individual levels of mercury exposure based on product usage.

Methods. Sixty skin lightening products were purchased from different vendors across various locations in Jamaica. Each product was initially screened for mercury using a portable handheld energy dispersive X-ray fluorescence (XRF) analyzer. In addition, 25 out of 60 products were further measured using cold vapor atomic absorption spectroscopy (CVAAS). Questionnaires were distributed to users of skin lightening products to determine their usage patterns.

Results. Six products had mercury concentrations above the United States Food and Drug Administration (FDA) allowable limit of 1 ppm, of which three products contained alarmingly high concentrations (i.e. > 400 ppm). The majority of products (57 out of 60) had mercury concentrations below 10 ppm. The mercury concentrations in skin lightening products ranged from 0.05 ppm to 17,547 ppm. In our sample, 51% of women and 49% of men used skin products more than once per day.

Conclusions. On average, creams contained more mercury than lotions and soaps. In individuals who use skin lightening products in Jamaica may be at risk for high mercury exposure, as some popular products were found to have mercury concentrations above the allowable limit.

Competing Interests. The authors declare no competing financial interests.

Keywords. mercury, skin lightening products, exposure assessment, X-ray fluorescence analyzer, Jamaica.

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J Health Pollution 26: (200601) 2020

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Skin lightening or skin bleaching is a public health concern in countries where these products are popular, such as Jamaica, as skin lightening products may contain toxic substances such as hydroquinone, steroids and mercury.³ Mercury exists in three forms: elemental, inorganic and organic. The inorganic form of mercury may be an added ingredient in cosmetics.⁴ However, recent reports have shown that methylmercury is also sometimes added to skin lightening products.⁵ Melanin is responsible for skin color.

Dark-skinned people have more melanin than light-skinned people.⁶ Inorganic mercury is added to skin lightening products to inhibit the formation of melanin. Furthermore, inorganic mercury may be absorbed into the skin through the sweat glands and hair follicles.⁷ The use of products containing inorganic mercury can cause topical damage to the skin, kidneys, and nervous system. Long term exposure to inorganic mercury may also result in irritability, muscle weakness, memory loss and kidney

Study design



Conducted market survey of skin lightening products in Jamaica



Measured mercury concentrations in popular products by XRF & CVAAS



Compiled questionnaire responses from participants for risk of mercury exposure

Conducting a market survey

Identify available products

We surveyed:
Pharmacies, supermarkets,
street vendors, beauty
shops, online stores

There were over **127** skin
lightening products for
sale in Jamaica

Determine popular products

Compiled the top 10
brands based on market
demand

Brands

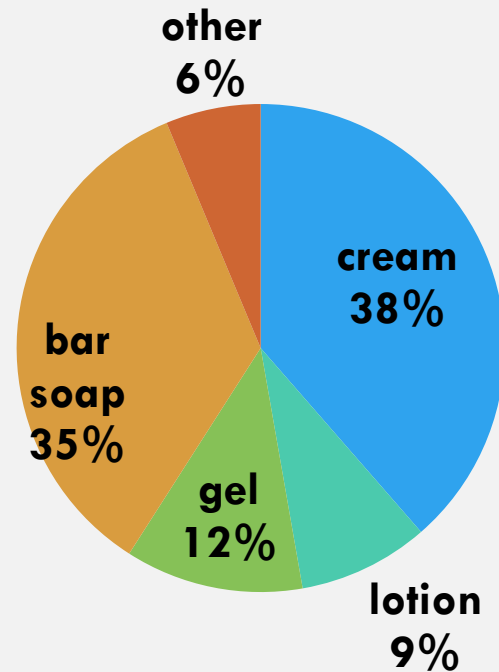
Idole, BioClaire,
"Nadinola", Neoprosone,
CaroWhite, Ultra skin
lightening, African
formula, Silken

Results from the market survey

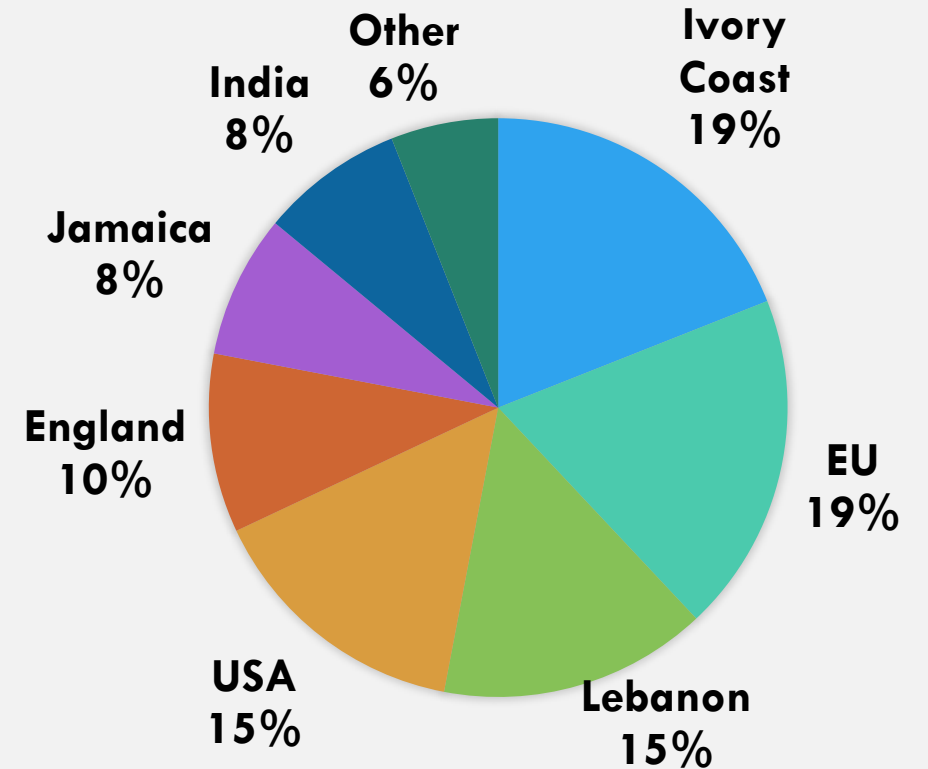
Product description

Physical description:
colour, formulation,
country of origin,
etc.

Categories of skin lightening products



Country of origin

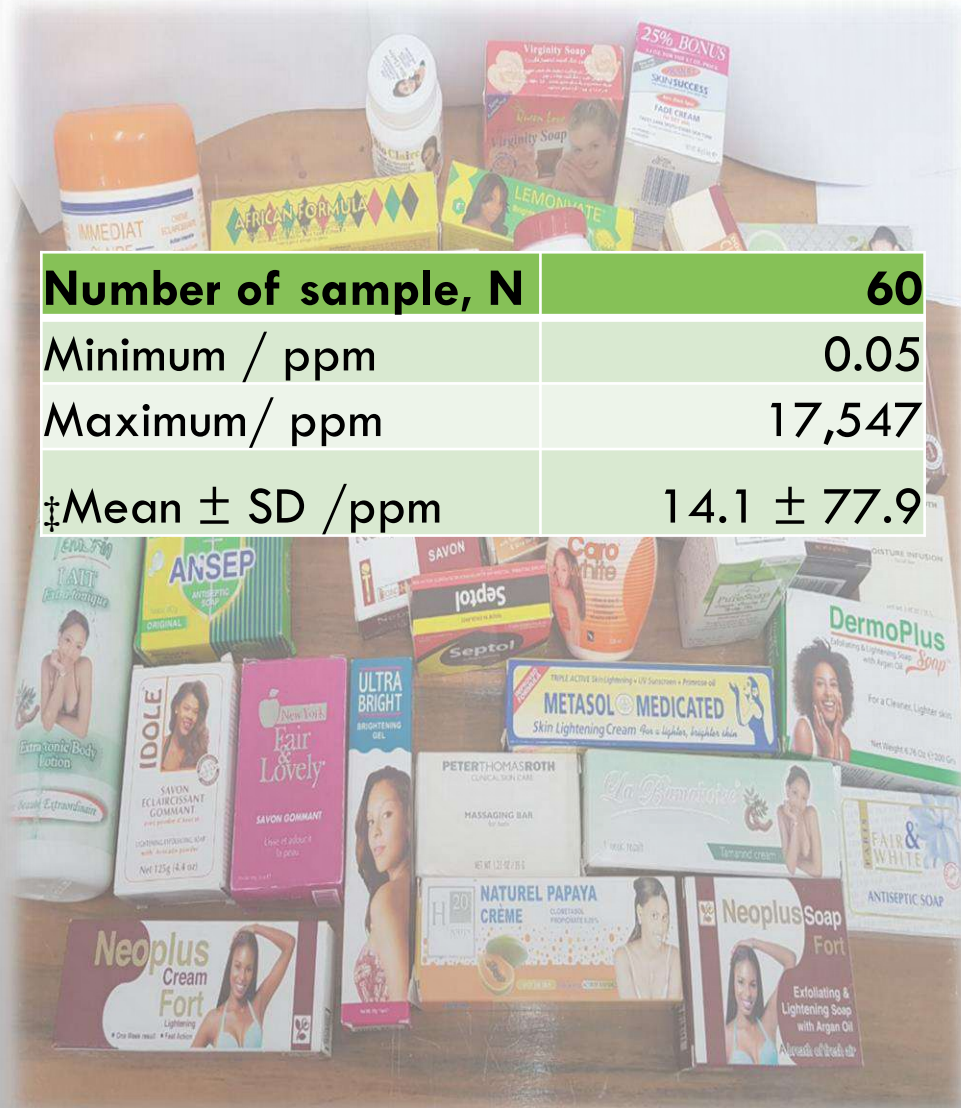




Thermo scientific™ Niton™ XL3t GOLDD+ XRF analyzer

- ✓ X-Ray Fluorescence (XRF) is a non-destructive analytical technique used to determine the elemental composition of materials.
- ✓ Detects 30 elements from Magnesium to Uranium (varies by application).
- ✓ Can be used as a screening tool for mercury (Hg) concentrations.

Table 1: Descriptive statistics of mercury concentrations



Number of sample, N	60
Minimum / ppm	0.05
Maximum/ ppm	17,547
‡Mean ± SD /ppm	14.1 ± 77.9

Table 2: Mercury concentration in popular skin lightening products (by product name)

Product name	Hg conc./ ppm
Below FDA allowable limit	
Radiant skin lightening pills	0.05
Crusader soap	0.06
Caro White intensive care*	0.12
Idole lotion*	0.15
Neoplus Soap Fort	0.15
Metasol Medicated cream	0.19
Natural Papaya cream	0.26
G&G cream	0.29
Dolly Antiseptic Soap	0.45
Bio Claire cream*	0.72
Above FDA allowable limit	
Maxi Light	1.12
Haloderm cream	2.17
KomeFast Super Toning Cream	3.68
Yellow cream – Nadinola*	422
White cream – Nadinola*	465
Silken*	17,547

*Most frequently used products

Usage patterns of products to determine risk

Supplemental material 3
Appendix 2: Questionnaire

Internal use
Date:
Sample ID:

Assessment of skin whiteners/skin brighteners/ fading creams/ bleaching creams usage in Jamaica

- Gender?
Male Female
- Age Group?
Under 30 years old 31 – 50 years old Over 50 years old
- What is your current employment status?
Employed Unemployed Student
- How often do you use skin whiteners/ skin brighteners/ fading cream/ bleaching creams?
Once per day More than once per day Once per week
- How long have you been using skin whiteners/ skin brighteners/ fading cream/ bleaching cream?
Less than 3 years More than 3 years
- Name (List) all the skin care products you use.

- Do you use mixtures of skin whiteners/ skin brighteners/ fading cream/ bleaching cream? If Yes, what are the combinations?

- Do you notice any negative effects while using these products? (Select more than one if necessary)
Discoloration Itchiness Irritability Depression Other: _____
- Do you have any skin care product that you would like to test for mercury? Leave us your contact.



Demography	Number of subjects
Age groups/years	
<30	280
31-50	92
>50	12
Frequency of application	
More than once per day	197
Once per day	130
Once per week	57
Socio-economic status	
Employed	192
Unemployed	84
Student	108

Fig. 2 Overview of questionnaire responses

Fig. 1 Sample Questionnaire

Highlighting public awareness campaign



Toxic Cosmetics! An Assessment of Mercury Exposure from using Skin Lightening Products in Jamaica

Phylicia Ricketts, Mitko Voutchkov, Andre Gordon, Christopher Knight
Department of Physics, The University of the West Indies, Mona

ABSTRACT

Introduction: Mercury is a toxic ingredient that may be found in skin lightening products. Long term exposure to mercury may result in irritability, memory loss, muscle weakness or kidney damage. Therefore, the Food and Drug Administration (FDA) set an allowable limit of 1 ppm of mercury in skin lightening products. Skin 'bleaching' or lightening is a big problem in Jamaica. The objective of this research was to assess the levels of mercury exposure from using skin lightening products in Jamaica.

Method: Questionnaires were administered to 300 participants to determine product usage. The products were measured for mercury using X-ray fluorescence (XRF) and cold vapour atomic absorption spectroscopy (CVAAS).

Results: The mercury concentrations in skin lightening products ranged from 0.08 ppm to 17,547 ppm.

Conclusion: Some skin lightening products manufactured in Jamaica have mercury concentrations well above the FDA allowable limit.

METHODS

1 Sample collection
Sixty (60) Skin lighteners/brighteners/fade creams/dark spot removers were purchased from wholesales, pharmacies and private vendors in Jamaica (Fig. 1)



Fig. 1

2 Mercury analysis
Samples were prepared and measured for mercury using CVAAS (Fig. 2) and handheld XRF analyzer (Fig. 3).



Fig. 2: Buck Scientific 400A Mercury Analyzer



Fig. 3: Niton XL3T-GOLDD handheld XRF analyzer

Project funding provided by the Pan American Health Organization (PAHO)

RESULTS

Fig. 4: Popularity of skin lightening products among respondents

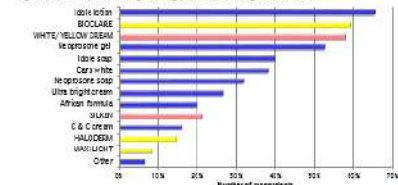


Table 1: Mercury (Hg) concentrations of some products (n=7) above the FDA allowable limit*

Product name	Hg conc/ Technique	Number of respondents
Above FDA allowable limit		
BioClare cream	1.0 CVAAS	~400
Maxi Light	1.1	~300
Haloderm cream	2.2	~200
KomeFast Super	3.7	~150
Toning Cream		
Yellow cream	422 XRF	~100
White cream	455	~50
Silkin	17,547	~20

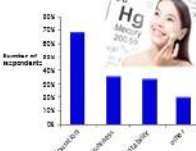


Fig. 5: Bar chart showing the reported side effects of using some skin lightening products

CONCLUSIONS

- Mercury (Hg) analysis
 - Handheld XRF analyzer was suitable for quick (30 seconds) detection of Hg conc. above 10 ppm.
 - CVAAS was suitable for measuring Hg conc. less than 10 ppm.

- Public awareness needs to be products and the health risks as
 - Products with the following ingredients: **iodide, mercurous chloride, an cinnabaris (mercury sulfide), oxide, mercury iodide**



Wednesday
December 20, 2017

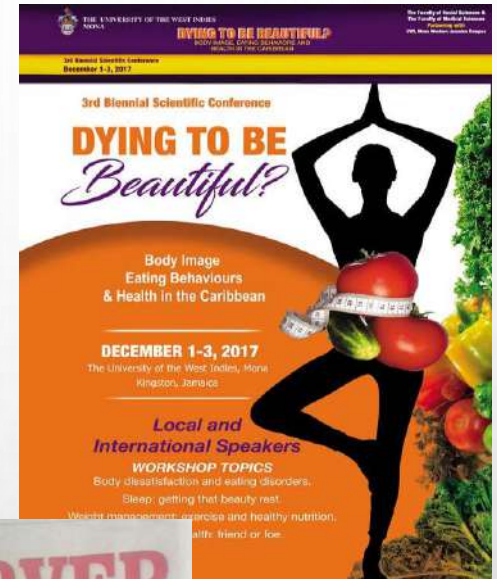
Time: 11 am – 12:30 pm
Venue: Virtual Lab (Dept. of Physics-UWI Mona)

Workshop features:

- Use of tools for measuring mercury concentrations in skin lightening products
- Health effects of mercury
- Assessment of mercury exposure from using skin lightening products in Jamaica
- Launch of High school 'Science Project'

Medical Physics Research group @ Pan American Health Organization (PAHO) Jamaica office

Workshop on
Mercury in skin lightening products used in Jamaica



Problem	Objective	Conclusion
<ul style="list-style-type: none"> Mercury is an active ingredient in skin lightening products 	Which skin lightening products (if any) contains mercury?	Mercury concentrations found in skin lightening products ranged from 0.05 – 17,547 ppm
<ul style="list-style-type: none"> Skin bleaching is a major concern in Jamaica 	What is the risk of mercury exposure from using skin lightening product?	Some of the most frequently used skin lightening products contained mercury well above the FDA allowable limit.
<ul style="list-style-type: none"> Jamaica's obligation to reduce mercury exposure under the Minamata Convention 	Do people know about the adverse health effects of mercury?	Workshops, Conferences, public lectures, Journal publication, PAHO Virtual campus public health course, mainstream media.



ACKNOWLEDGEMENT

- Financial support from Pan American Health Organization (PAHO)
- Department of Physics, UWI Mona campus
- XRF analyzer contributed by International Atomic Energy Agency (IAEA)
- The Mines and Geology Division of the Ministry of Transport and Mining in Jamaica
- Undergraduate Research students

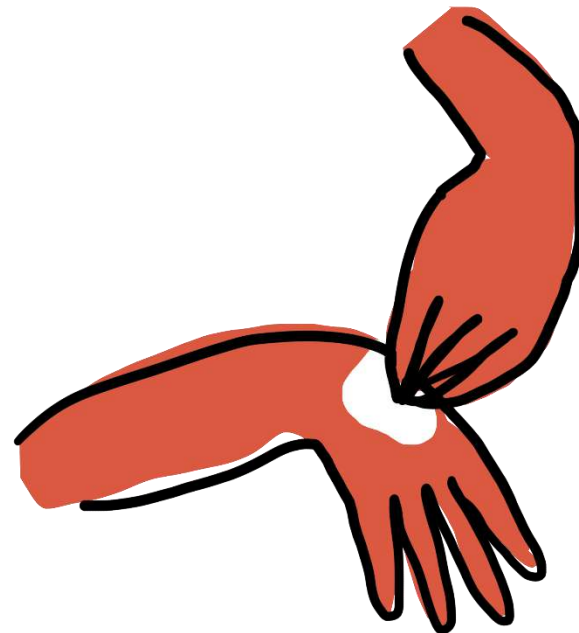
Thank you

- Any questions?

- phylicia.ricketts01@uwimona.edu.jm



Dangerous, mercury-laden and often illegal skin-lightening products



Global Mercury Product Partnership Webinar, 30 November 2020

Michael Bender, Mercury Policy Project / Zero Mercury Working Group

Zero Mercury Working Group Testing

- In 2017-18, ZMWG analyzed 338 skin-lighteners from 22 countries and found Hg levels from 93 to 16,353 ppm
- In 2019, we conducted expanded testing of products identified by governments with Hg levels over 1 ppm



- Results show local availability of high Hg products
- Also show global availability on internet platforms

Testing Results & Follow Up

- In the latest round of testing, 158 samples were purchased by NGO partners in 12 countries
- 95 were found to violate the 1 ppm mercury limit
- Mercury levels ranged from 40 ppm to over 130,000 ppm
- Testing confirms the same high Hg brands available on several sampling occasions in different years
- Most of the products were purchased from Amazon, eBay, BidorBuy, Lazada, Daraz, Flipkart, Jumia, etc.
- E-Commerce giants were asked to remove illegal products

--The following platforms removed illegal products: eBay, Daraz (Asia), Jumia (Africa), Lazada (Philippines branch) & Amazon UK/US
--Others contacted but didn't respond
--ZMWG plans to again test online product sales in 15 countries

Amazon pulls skin-lightening products after groups' concerns

Amazon has pulled more than a dozen skin-lightening products with dangerous levels of mercury off its website after Minnesota public-health and environmental activists raised concerns.

Associated Press

NOVEMBER 22, 2019 — 10:09PM



CHRISTINE T. NGUYEN — ASSOCIATED PRESS

In this Wednesday, Nov. 20, 2019 photo, from left, Mary Blitzer, of the Sierra Club, gives a petition of over 23,000 signatures to Amira Adawe of the Beautywell Project as they deliver it to the Amazon Fulfillment Center in Shakopee, Minn.

ZMWG COMPANION REPORT- ENFORCEMENT RECOMMENDATIONS COVER THE FOLLOWING AREAS:

1. Legal framework, mandates and division of responsibilities
2. Supporting tools and measures
3. Inter-agency and International Collaboration, including regional efforts
4. Inspections and sanctions
5. Conclusions



Enforcement measures
to restrict high mercury
cosmetic products under
the Minamata Convention



Thank you!



www.zeromercury.org

<https://www.zeromercury.org/mercury-added-skin-lightening-creams-campaign/>





Mercury- Added Skin Lightening Products:

Implementation and Enforcement Issues

David Lennett, Senior Attorney
Natural Resources Defense Council

November 30, 2020

Three Key Purchasing Channels

1. Imports
2. Domestic/Informal Production
3. Online Sales

Each presenting unique/difficult challenges



Imports – Identifying Noncompliant Products

- Differentiate mercury-added products – HS Codes
- Ingredient disclosure/certificate of compliance as condition of import
- Surveillance/screening
 - Field capability – XRF machine
 - Lab capacity
 - Capabilities to inspect, sample, seize illegal products, impose sanctions and prosecute
- Interagency coordination
- Customs training
- Regional coordination/alert systems



Domestic/Informal
Production

Follow the mercury

- Licensing/tracking

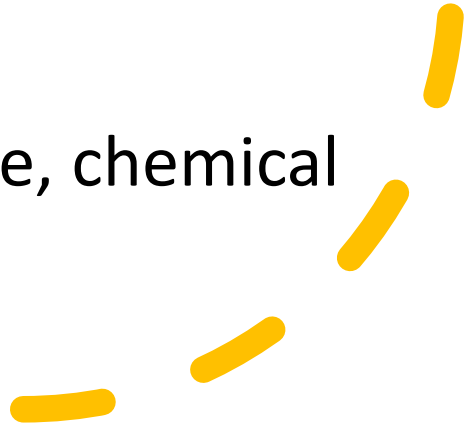
Identifying producers

- NGO assistance
- Awareness raising
- Medical community

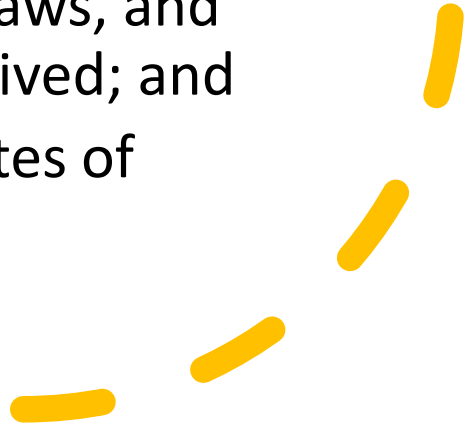
Online Sales

- Illegal product sales a wider problem
 - EU Chemical Strategy and market studies
 - [https://www.epa.gov/newsreleases/epa-orders-amazon-and-ebay-stop-sale-certain-pesticide-products-0\)](https://www.epa.gov/newsreleases/epa-orders-amazon-and-ebay-stop-sale-certain-pesticide-products-0)
 - Wall Street Journal, August 23, 2019
- Online platform – publisher or retailer?
- In the past, courts often regarded online platforms as publishers, but trend now toward greater accountability
- Online platform may be only entity within country's jurisdiction


Online Sales – Recent Developments

- Amazon liable for replacement laptop battery burns-
 - Court found Amazon not just a publisher because it was “an integral part of the production and marketing enterprise”
 - Facilitated marketing on its website
 - Accepted the order, and billed the customer
 - Stored and shipped the product
 - 2019 State of Washington/Amazon settlement
 - California liability bill
 - EU Initiatives (market surveillance, chemical strategy, digital services reform)
- 

Examples of Online Platform Best Practices?

- Require third-party sellers to consent to local jurisdiction
 - Verify and display conspicuously on the platform the third-party seller's identity, principal place of business, contact information, country of origin for the manufacture of the product, and the location from where the product will be shipped;
 - Require third-party sellers to certify compliance with applicable health and safety laws, and conduct checks of certificates received; and
 - Require sellers to provide certificates of insurance.
- 

Final Thoughts

- Skin lightening products are the ASGM of the products area
 - Many informal participants
 - Decentralized illegal activity
 - Insufficient awareness of health risks
 - Requires attention on both supply and demand side
 - Anticipate post-2020 compliance issues and greater attention to capacity building, international cooperation, online sales
 - Going to be a long journey
- 

Resources

- <https://www.wsj.com/articles/amazon-has-ceded-control-of-its-site-the-result-thousands-of-banned-unsafe-or-mislabeled-products-11566564990>
- https://echa.europa.eu/documents/10162/31232263/os_3-5_en.pdf/d4e248e5-19a4-b028-4e79-9f34e5441ebd
- In re Amazon, Assurance of Discontinuance, No. 19-2-12446-6 SEA (May 9, 2019)
- *Bolger v. Amazon.com, LLC*, 53 Cal.App.5th 431 (2020)
- Cunningham & Reese, 5 Ways Retailers Can Mitigate Product Liability Litigation Risk, Law360 (Sept. 23, 2020).
- EU Market Surveillance Regulation, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1020&from=EN>
- EU Chemical Strategy, <https://ec.europa.eu/environment/pdf/chemicals/2020/10/Strategy.pdf>.
- <https://www.nrdc.org/resources/minamata-convention-mercury-contents-guidance-and-resources>
- <https://www.zeromercury.org/wp-content/uploads/2019/11/Enforcement-measures-to-restrict-high-mercury-cosmetic-products-under-the-Minamata-Convention.pdf>



Panel discussion: experiences and lessons learned from countries



Inter-ministerial collaboration and commitment to eliminate mercury in skin-lightening products

Dr. Lakshman Gamlath

Deputy Director General

(Environmental Health, Occupational Health & Food safety)

Ministry of Health

Sri Lanka

Different agencies involved

1. Ministry of Environment.
2. Ministry of Health (EOHFS & NMRA)
3. Sri Lanka Standard Institution (SLSI)
4. Sri Lanka Customs.
5. Department of Ayuradha.
6. Consumer affairs authority (CAA)
7. Chamber of Commerce.
8. NGO (*Parisara Yukthi Kendraya*)

Current collaboration activities

- Ministry of Environment is the focal point and the designated authority for the implementation of Minamata Convention in Sri Lanka.
- There is a National steering committee chaired by secretary, Ministry of environment for Basel, Rotterdam, Stockholm and Minamata Conventions.
- This steering committee is held once in three months.
- Ministry of Health is a member of this committee.
- Regulating the heavy metals, including mercury in skin whitening creams have been an agenda item in the steering committee meeting.

Skin-lightning products

- Two broad categories exist in Sri Lanka, namely “conventional” and “traditional” (Ayurvedic)
- Both categories have different products (Creams, gels and soap)
- SLSI has developed a standard years ago but this has to be revised.
- Awareness of harmful effects of mercury among the general public and even among some categories of public health staff is very poor.
- Some organizations have done small scale surveys on mercury levels of skin lightening creams and found the levels are high in many products.
- A vigorous campaign on adverse health effects of mercury is a priority.

Current activities

- Ministry of Health in its regular awareness raising campaigns have taken up this issue of high levels of mercury in cosmetic products but this activity needs more emphasis and scale up.
- Minamata Initial Assessment has already been done and Ministry of health also took part in this exercise.
- Collective effort has been initiated to test the levels of mercury in skin lightening products and maintaining mercury levels less than 1ppm in skin whitening creams.
- Special sub committee has been appointed to "Review of Regulations on Fairness Creams and Cosmetics" under the "Minamata Project Steering Committee" of the Ministry of environment.

Recommendations

- To carry out a national survey on the mercury levels of skin lightning products to identify the gravity of the problem.
- Revise the national standard to suit the present day needs.
- Develop a regulation adopting the national standard.
- Develop a regulatory mechanism to ensure the products in the market complies with the regulations.
- Start a mass media campaign to educate the public on health effects of mercury in skin lightning products
- Monitor and evaluate the programme and further improvements.

A blurred background image showing a pair of hands holding a small white bowl. The hands are positioned as if presenting the bowl. The image is framed by a green border with rounded corners.

Thank you



**REGIONAL COOPERATION AND COMMITMENT TOWARDS
PROTECTING HUMAN HEALTH AND ENVIRONMENT FROM
POLLUTION OF MERCURY CONTAINING COSMETICS AND RELATED
PRODUCTS:
NEMA-UGANDA'S PERSPECTIVE**

**A PRESENTATION MADE AT THE COSMETIC WEBINAR HELD ON 30TH NOVEMBER
2020**

Presented by Anne Nakafeero

Senior District Support/National Focal Point Minamata Convention on mercury

NEMA-Uganda

INTRODUCTION

Highlighted in the presentation are the following:

- 1.0 State of mercury releases from mercury containing cosmetics & related products in Uganda
- 2.0 Regional/national efforts in managing cosmetics & related products along the value/supply chain
- 3.0 Existing challenges
- 4.0 Recommendations
- 5.0 Conclusion

1.0 STATE OF MERCURY RELEASES FROM MERCURY CONTAINING COSMETICS & RELATED PRODUCTS IN UGANDA

- ✓ MIAs studies (2018) revealed a total mercury output of 31,087kg/yr.
- ✓ Estimated Hg input from cosmetics and related products, by life cycle phase is 104 Kg Hg/yr. (use and disposal phases fused together)
- ✓ Whereas input seems small, mercury output pathways from cosmetic and related products with mercury seem to cause more risks...food chain...table 1 below.

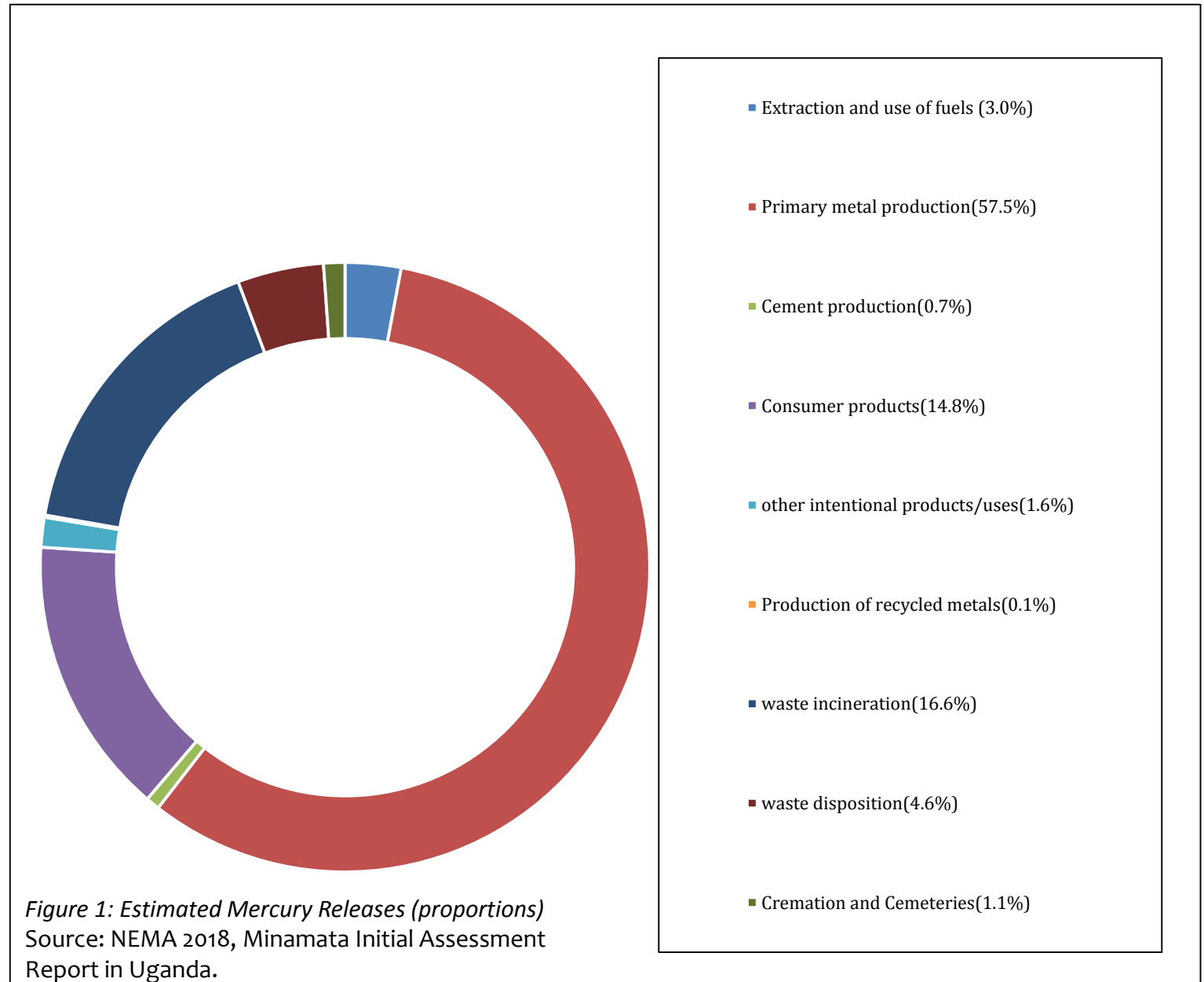


Table 1: Mercury output pathways from cosmetic and related products with mercury

Source category	Calculated Hg output, kg/y					
	Air	Water	Land	By-product + impurities	General waste	Sector spec. treatment/disposal
Source category: Consumer products with intentional use of mercury						
Cosmetics and related products with mercury	0	99	5	-	0	0

Source: NEMA 2018, Minamata Initial Assessment Report in Uganda

2.0 REGIONAL/NATIONAL EFFORTS IN MANAGING & REGULATING COSMETICS & RELATED PRODUCTS ALONG THE VALUE/SUPPLY CHAIN

Regional efforts:

- The East African Community Customs Management Act (EACCA), 2004 as amended.
- Section 18, Part A-Prohibited goods; part (9) all soaps and cosmetics containing mercury

National

- i. Categorisation and classification of imports by Customs with the help of Hs codes
- ii. Single window platform for interagency interventions developed by Uganda Customs
- iii. Conducting routine market surveillance by Uganda National Bureau of Standards (UNBS)

REGIONAL/NATIONAL EFFORTS IN MANAGING & REGULATING COSMETICS & RELATED PRODUCTS ALONG THE VALUE/SUPPLY CHAIN cont.

National cont.

- i. UNBS has profiled cosmetics and related products containing mercury. Customs uses this information during clearance of imported goods
- ii. Enabling legal framework
 - Uganda National Bureau of Standards Act Cap 327
 - National Environment Act No.5 of 2019
- iii. UNBS developed product standards in 2017 (254 national standards, 111 of which cover chemicals and consumer products including cosmetics and related products)

Under development;

- Development of National Environment (Industrial and other Consumer Chemicals) Regulations
- Development of an integrated database for chemicals with linkages with other relevant chemicals databases in national institutions –ongoing, commenced Nov 2019

3.0 EXISTING CHALLENGES

i. Limited consumer empowerment

(cannot interpret product content e.g WHO - Calomel, Cinnabaris, Hydrargyri oxydum rubrum, Quicksilver among others...Product content written in small words

ii. National standards not adequately aligned to Convention recommended cosmetic specifications.. level of detail necessary to track mercury-added cosmetics is minimal

-They only talk about its presence/absence

iii. EACCA doesn't specify mercury concentrations prohibited

iv. No Hs codes for internally manufactured cosmetics even if they may end up on the East African Market

v. Monitoring/inspections are limited due to limited staff

EXISTING CHALLENGES cont.

- vi. Adulterated/substandard products cost less than standard ones, consumers opt for lowly priced products
- vii. Limited presence of UNBS at border points to check/mitigate smuggling of prohibited cosmetics
- viii. Poor management of disposed cosmetics at household and institutional level
- ix. Limited engagement of stakeholders in industry & trade organizations, in projects, policies & programmes related to safe cosmetics
- x. National public laboratories not accredited to test for mercury
- xi. Limited regional collaborations in curbing smuggling of prohibited cosmetics and related products
- xii. Lack of specialized equipment and personnel to detect mercury containing cosmetics

4.0 RECOMMENDATIONS

- i. Baseline studies need to establish the extent of informal manufacture, repacking and supply of mercury containing cosmetics
- ii. Updating regional and national legal framework for importation and management of MAPs including cosmetics and related products
- iii. Public-private sector partnerships can assist the transition
Awareness
- iv. Address whole cycle for cosmetics
- v. Purchase specialized equipment and train personnel to detect mercury containing cosmetics and related products

5.0 CONCLUSION

- The East African region has taken meaningful steps in mitigating environment and human pollution from cosmetics and related products.
- There is need to on board more regional bodies, private sector & CSOs to enhance collaborations in managing the supply/value chain and whole life cycle of recommended mercury containing cosmetics and related products

Thank you for your attention

Isabelle Mananga-Ossey

Consulting, founder Label Beauté Noire, France

Online Webinar

November 30th 2020, 3:00 PM - 5:00 PM CET

« Raising public awareness about mercury in skin-lightening products »

Mercury in skin-lightening products: towards the 2020 deadline



UNEP
GLOBAL
MERCURY
PARTNERSHIP

30 November 2020
15:00-17:00 CET

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Closure



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Yellowfin Tuna, Courtesy NOAA Fisheries, © Photo by Jeff Muir

Thomas Groeneveld

*US Environmental Protection Agency,
Coordinator of the Partnership Area on
Mercury in Products*
