

WHO Activities in the area of Mercury in Health Care with focus on Regional Perspective

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Health problems of Mercury and its Health-care Sources

Health Problems due to mercury

- Neuro toxicant
- Nephro toxicant
- Pneumo toxicant
- Gastro toxicant
- Passes the placental, the blood-brain and the skin barrier
- Populations especially susceptible- foetus, the newborn, and young children
- Transcontinental and global transport help in Bio-accumulation/ Bio-magnification

Health care sources of Mercury

- Thermometers
- Sphygmomanometers
- Dental amalgam
- Gastrointestinal tubes
- Laboratory chemicals
- Pharmaceutical products
- Electrical appliances
- Medical waste incineration, open burning, burning in barrels, gasification, pyrolysis etc



WHO Policy – Mercury in Health Care

- WHO's work in Public Health & Environment (PHE) focuses on technical collaboration for improving health by preventing and reducing environmental hazards through a proactive, preventive public health approach.
- WHO collaboration takes into consideration Short-term, Medium-term and Long-term approaches.

Guiding Policies

- World Health Assembly Resolutions
- WHO regional and national strategies
- HCWH and other forum

WHO Partnerships for Mercury Reduction in Health Care Sector

- ***United Nations Environmental Program***
 - * GEF global project on reducing release of mercury in health care
- ***Health Care Without Harm (HCWH) -***
 - * Five Partnership Strategies
 - * Ten Short term Objectives

WHO-HCWH Partnership Strategies and Short Term Objectives

Partnership strategies

- Establish mechanism to certify the accuracy and efficiency of mercury-free medical devices.
- Awareness raising and mobilization of the health care sector to shift demand towards alternative devices.
- Develop model policies and catalytic activities.
- Define safe elimination strategies for mercury equipment, and mercury waste management.
- Support establishment and expansion of production facilities for mercury free medical devices.

WHO-HCWH Partnership Strategies and Short Term Objectives (Contd.)

Short term Objectives

- Establish international standards for mercury-free alternative medical devices.
- Implement national policies to phase-out mercury-based medical devices.
- Phase-out of mercury sphygmomanometers in the European Union.
- Replicate the municipal policies of Buenos Aires and New Delhi in 3 other mega cities.
- Phase out mercury based medical devices in 1,000 hospitals in Asia, Africa, the America.
- Demonstration pilots in 10 new countries.
- Prepare training module focused on substituting mercury-based medical devices.
- Establish with the Basel Convention Secretariat, model national health care mercury waste management project.
- Development of production facilities for high quality, affordable mercury-free medical devices in developing countries.
- Assess progress after two years, refine medium term objectives and develop activities for years 4-6.

Addressing related Health issues- South East Asia Regional Perspective

- **Thailand:** Relevant legislation and regulatory measures in place, but gaps in enforcement and monitoring capacity.
- **Bangladesh:** Priority on the overall chemical infrastructure. Separate chemical section under the MOE is proposed.
- **Bhutan and Nepal:** Have identified the need for awareness raising as well as doing mercury inventories.

*(All three countries **Bangladesh, Bhutan and Nepal** propose technology transfer as a major strategy, capacity building of staff and personnel, as well as enhanced interagency collaboration.)*

- **Myanmar:** Priority for drafting regulatory measures as well as designating and training appropriate staff to handle the mercury program in the Ministry of Environment.
- **Maldives:** Policy of replacing mercury free health care equipments.
- **India:** The Hazardous Waste Management and Handling Rules (1989) lists mercury and mercury waste as hazardous waste, but there is no individual policy covering the health sector mercury instruments.



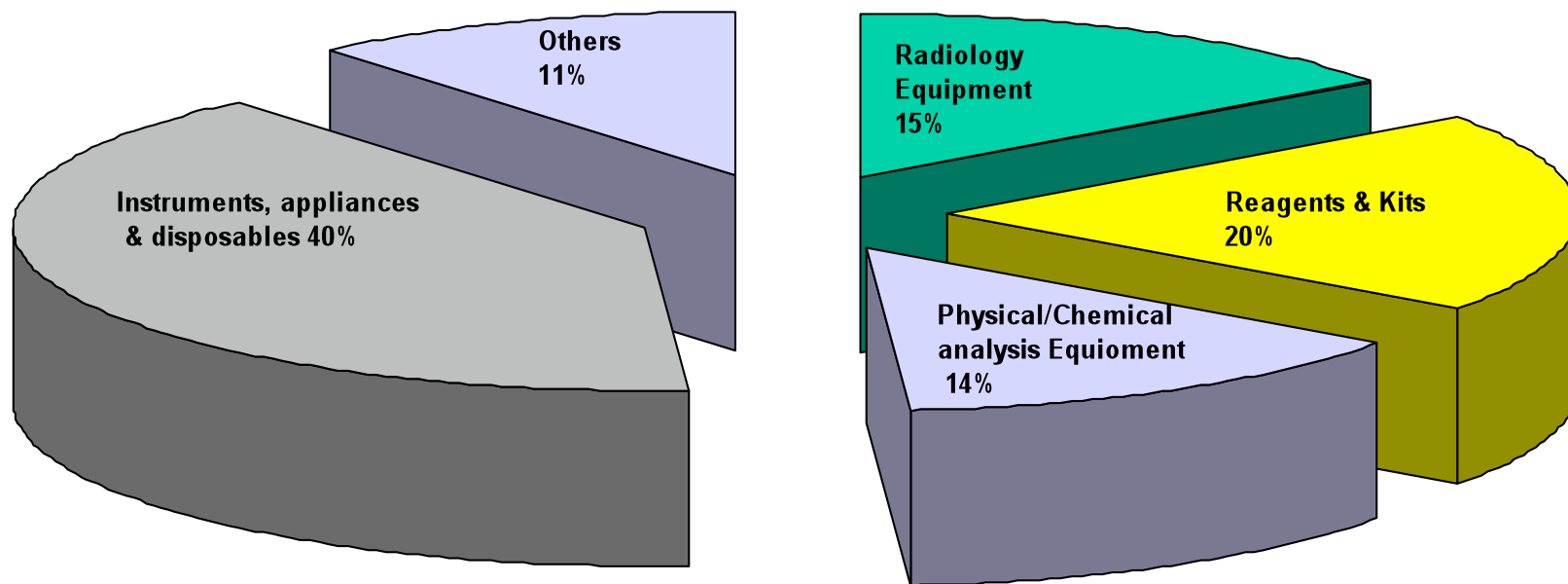
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Hospitals making difference in India

- **Several private hospitals in India have already switched over to mercury-free health care.**
- **From an economic perspective, it is relatively easy for these hospitals to move to alternatives, as they are able to pass the additional cost to the patients.**
- **Model hospitals like St. Stephens Hospital in New Delhi, has replaced all its mercury thermometers.**
- **Delhi Pollution Control Committee, Department of Environment, has advised All Hospitals, Nursing Homes and Health Care Facilities in NCT of Delhi for commitment to minimize/ eliminate mercury containing waste.**

Market Study on Alternatives of Mercury Measuring Devices in Health Care in India

Demand for medical equipments



Current Usage Scenario of common measuring Devices

Thermometer

In India, more than 90% of the individual users prefer mercury containing thermometers, for simple reasons i.e.,

1. Market availability
2. Age old tradition and lack of awareness
3. Mercury free is three times more costly

BP Instruments

In hospitals, mercury containing BP instruments are still used. The purchase of this product depends on

- The management of the hospitals/clinics
- Cost of the instruments
- Feedback of doctors

Doctors usually complain about the accuracy of the mercury free BP instruments.

Occupational Health Risk of Mercury

- In most hospitals in developing countries patients and health care workers are regularly and unknowingly exposed to dangerously high levels of mercury.
- There is regular and ongoing breakage of thermometers and the lack of mercury waste management protocols.
- Mercury waste from broken fever thermometers is significant.
- The common mode of occupational exposure to mercury is via inhalation of liquid mercury vapours.
- Small amount of elementary mercury can contaminate indoor air and lead to serious health consequences.
- Inadequate cleaning and disposal may expose already compromised patients and health-care staff.

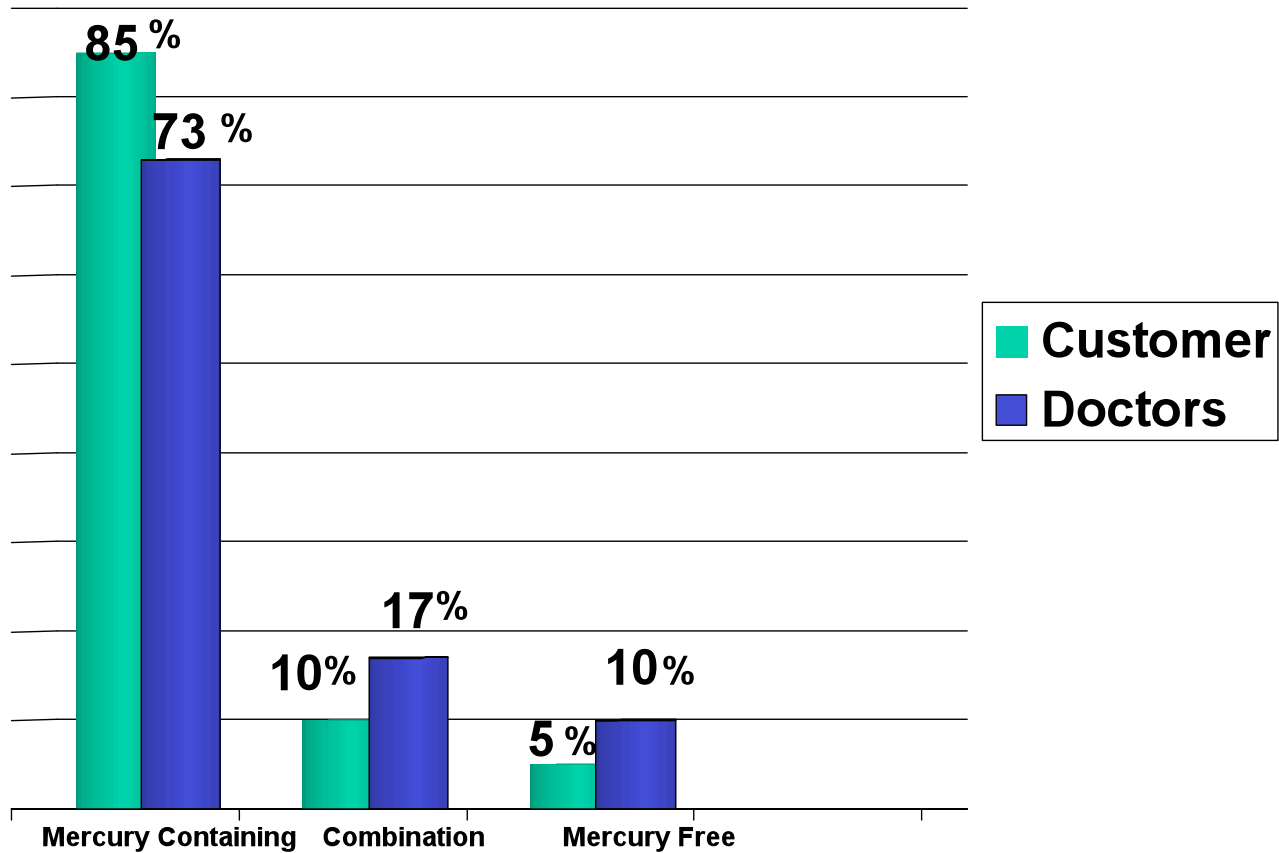


Driving Forces

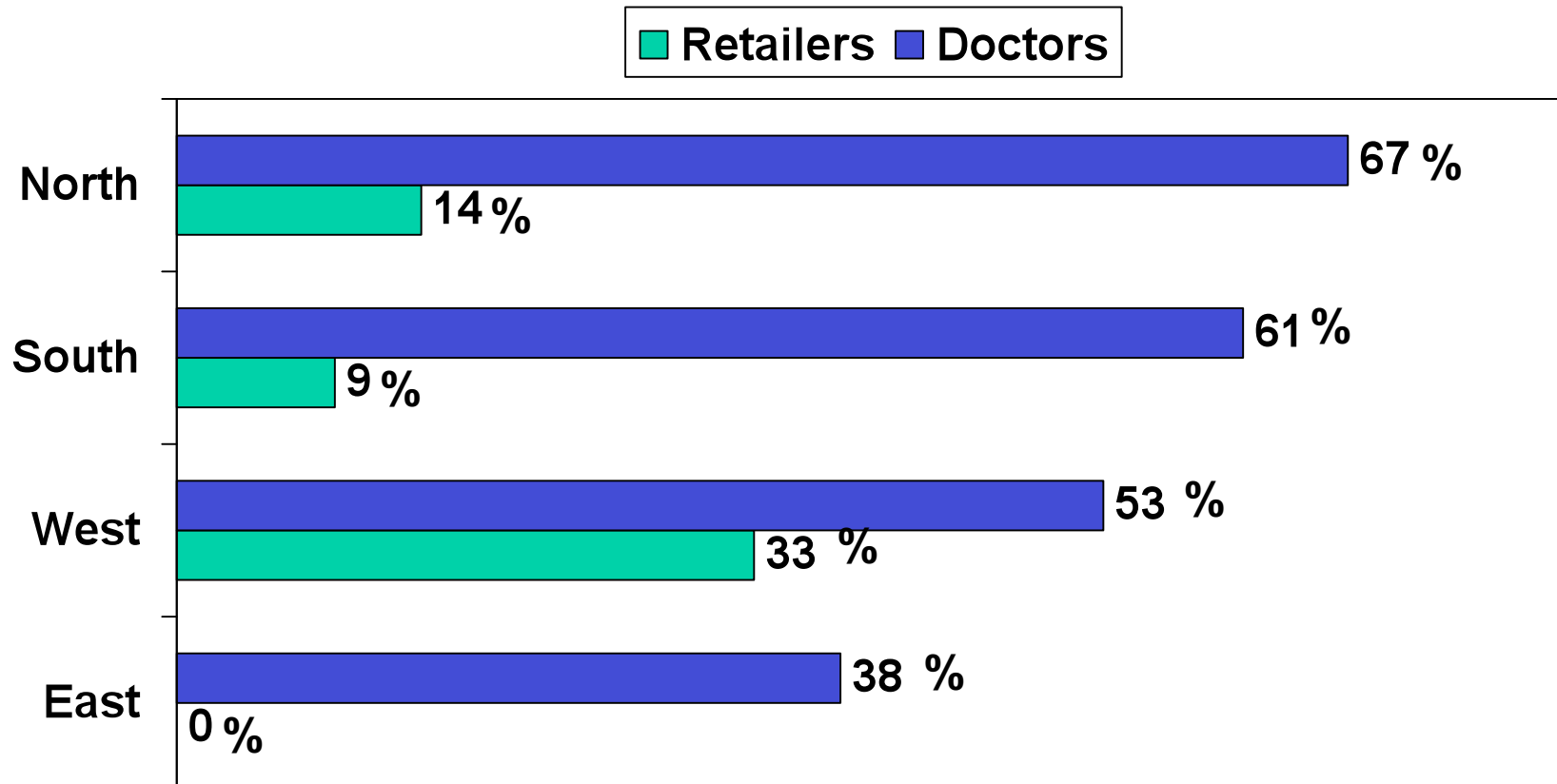
Drivers	Current Market Impact
Awareness of health hazards	No impact
Legislative Regulations	Positive impact, but not working effectively, and more specific regulation required.
Public-Private trends shift	Positive impact
Price difference between mercury containing and mercury free	Negative Impact
Organized retail	Positive impact
Rise in health insurance	Indirect positive impact

Equipment Exposure- Current Scenario

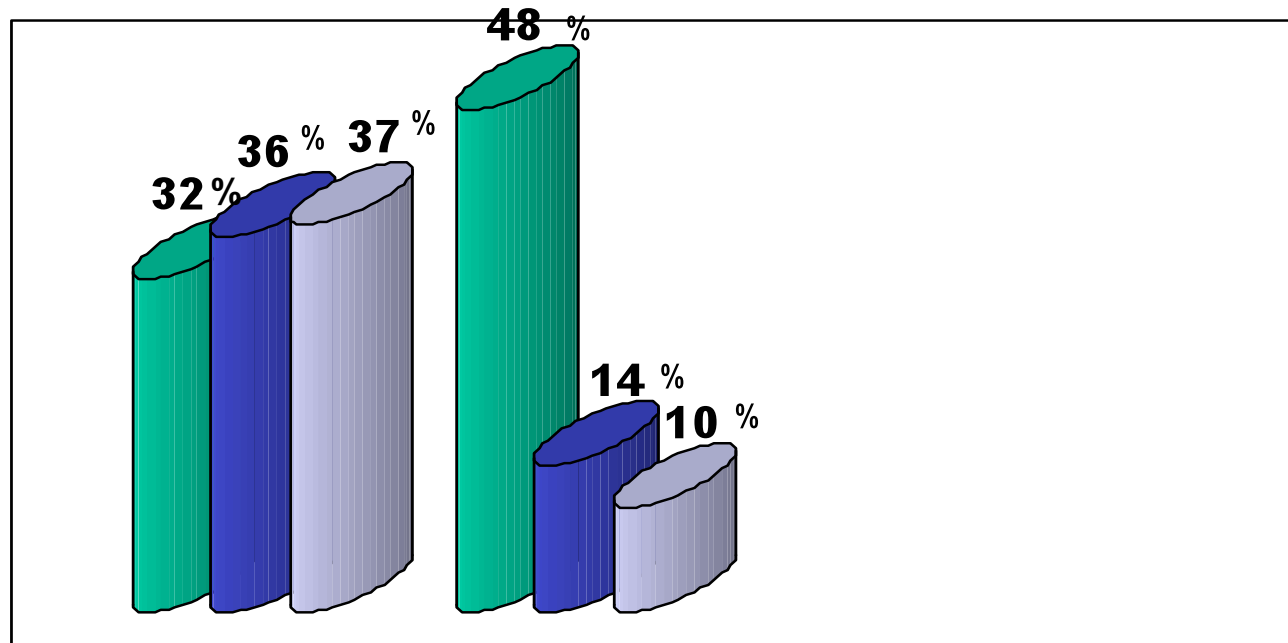
Current Product Exposure



Awareness of Ill Effects of Mercury



Influencers



Thermometers

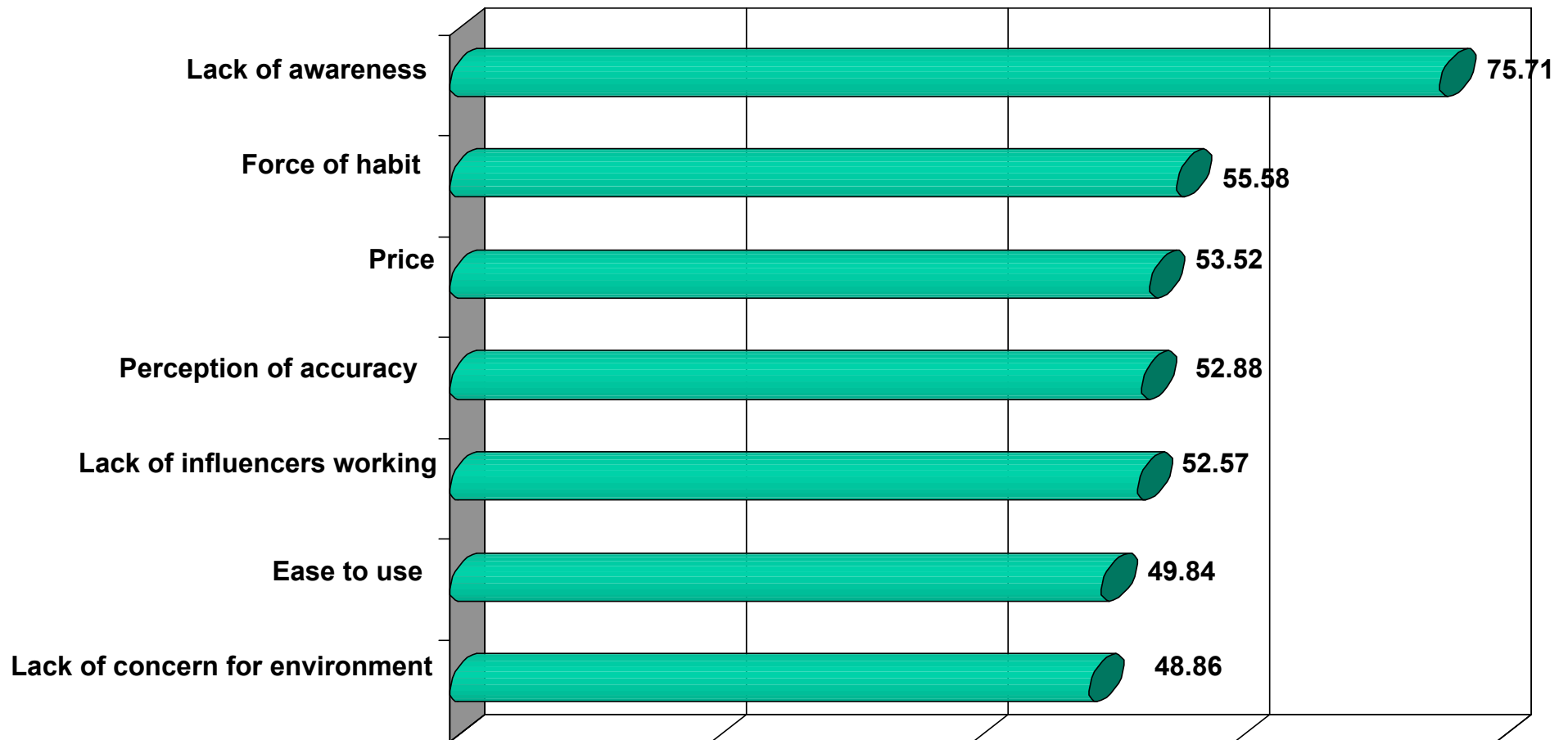
BP Instruments

Acceptability of alternatives

	Doctors	Customers
Aware of ill effects of mercury containing products	53%	15%
Awareness of alternatives to mercury containing products	77%	28%
Ever used mercury free products	61%	13%
Shift back to traditional	13%	1%
TOTAL number of doctors/ customers	116	458



Barriers to Mercury Free Equipments



Planning for the Future

- Specific Legislative Action
- Creating a Central Governing Body in the Health Care Sector.
- Harnessing market opportunities.
- Partnering with the media for generating awareness.
- Adopt fear market strategy to abandon the use of mercury.
- Bringing together the associations like govt., hospitals, medical and nursing colleges, NGOs, manufacturers, global institutions etc.
- Targeting the influencers.



Thank You



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