Pan American Health Organization

Regional Office of the
World Health Organization

http://www.paho.org

PAHO's Experience preventing HBV in the Healthcare Workforce in LAC

Regional Activities to protect healthcare workers

Julietta Rodriguez Guzman, MD SOH MScA
Regional Advisor on Workers' and Consumers' Health
Sustainable Development and Environmental Health

VHPV Meeting
Barcelona, Spain - November 15, 2012

Overview

1. Health and safety of healthcare workers
2. Plan of Action on Workers' Health
3. Collaboration
4. Regional activities

Organización Panamericana de la Salud

Healthcare Workers

- 59.2 M Globally, 21.7 Millions of healthcare workers in the Americas *(Source: WHO, 2006).*
- Women represent 75-85% of the health workforce *(Source: Cameron, 2006, Rodriguez-Guzman, 2012)*
- 57 countries in the world with a critical shortage of health human resources *(Source: WH...*

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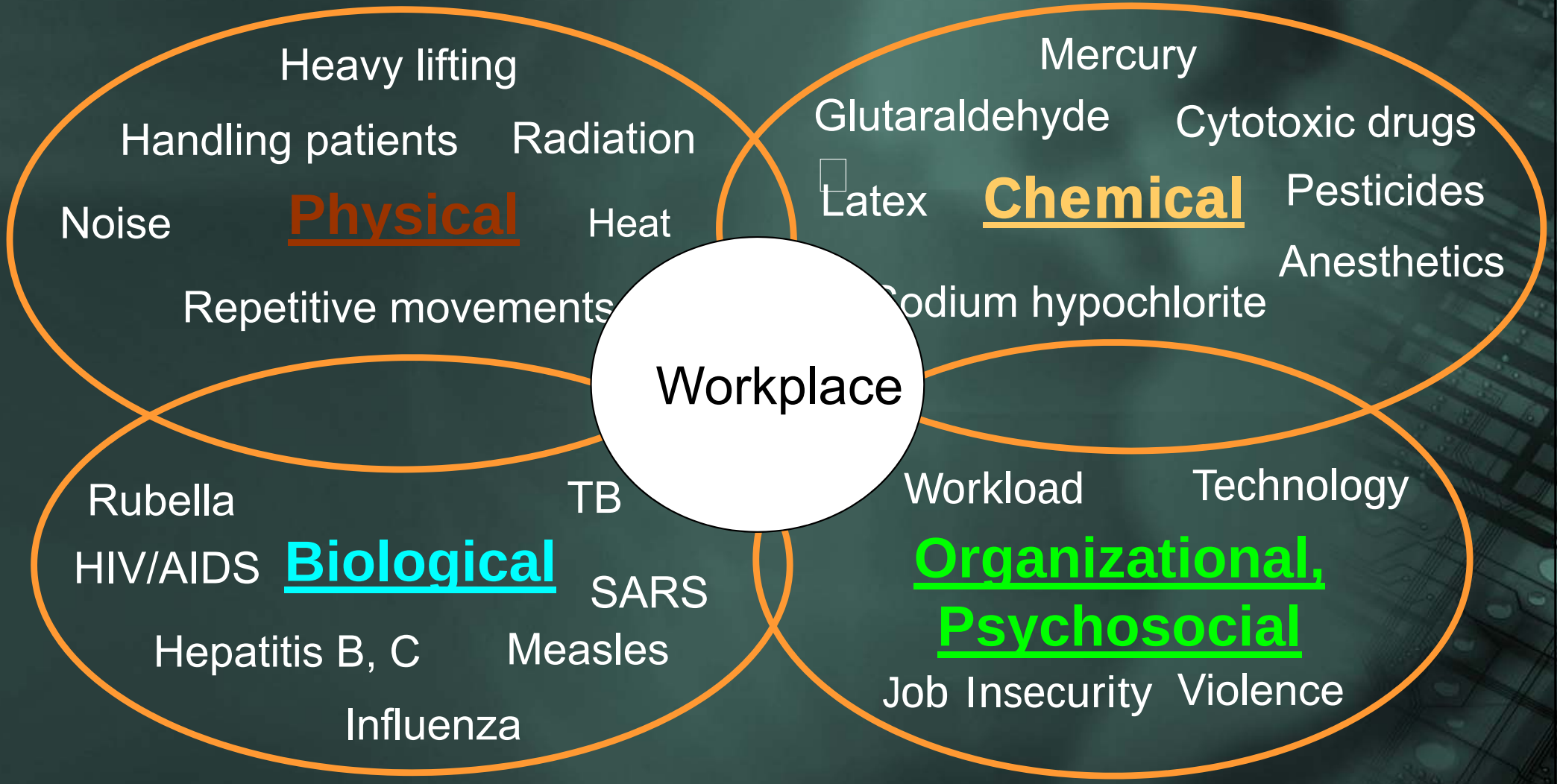
Health Care Workers and Occupational Risks



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ORIGINAL RESEARCH | Annals of Internal Medicine

High Incidence of Hospital Admissions With Multidrug-Resistant and Extensively Drug-Resistant Tuberculosis Among South African Health Care Workers

Max R. O'Donnell, MD, MPH; Julie Jarand, BSc, DHSM, DPH, MS(Epi); Jennifer Zelnick, MSW, S Garth Osburn, MBChB; Charlotte Kvasnovsky, M Charles R. Horsburgh, MD, MUS; and Keertan D

Table 2. Average Annual Incidence of Hospitalization for Treatment of Drug-Resistant Tuberculosis Among Health Care Workers and General Population Patients Hospitalized at King George V Hospital for Drug-Resistant Tuberculosis, 2003 to 2008*

Variable	Incidence in Health Care Workers (per 100 000)	Incidence in General Population Patients (per 100 000)	Hospital Admission Incidence Rate Ratio (95% CI)†
MDR or XDR-TB incidence	71.9	12.9	5.56 (4.87–6.35)
MDR-TB incidence	64.8	11.9	5.46 (4.75–6.28)
XDR-TB incidence	7.2	1.1	6.69 (4.38–10.20)

MDR-TB = multidrug-resistant tuberculosis; XDR-TB = extensively drug-resistant tuberculosis.
* Restricted to persons aged ≥20 y.
† $P < 0.001$ for all.

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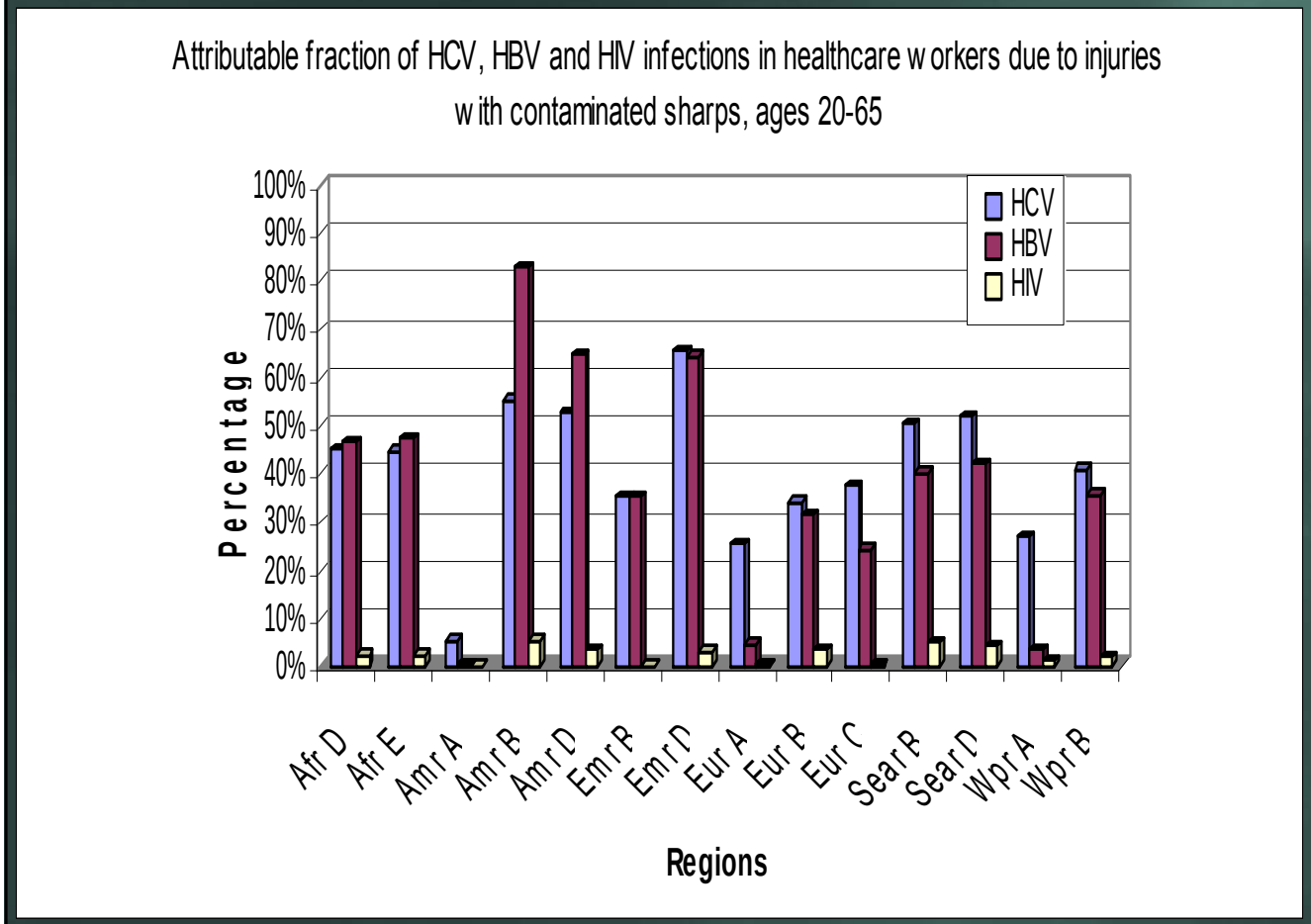
WHO Global Burden of Disease Study



Americas B (All other Latin American Countries)

- Hepatitis B **83%**
- Hepatitis C **55%**
- HIV/AIDS **11%**

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Source: Sharps injuries: Global burden of disease from sharps injuries to health-care workers, WHO

WHO Workers' Health Global Plan of Action (2008-2017)

1. Devise national **policy** instruments on workers' health
   - Specific programs for the occupational health and safety of HCWs
   - Immunization of HCWs against HBV
2. **Protect and promote health** at the workplace
3. Improve the performance of and **access** to occupational health services
4. Provide and communicate evidence for **preventive actions**
5. Incorporate workers' health into **other policies**

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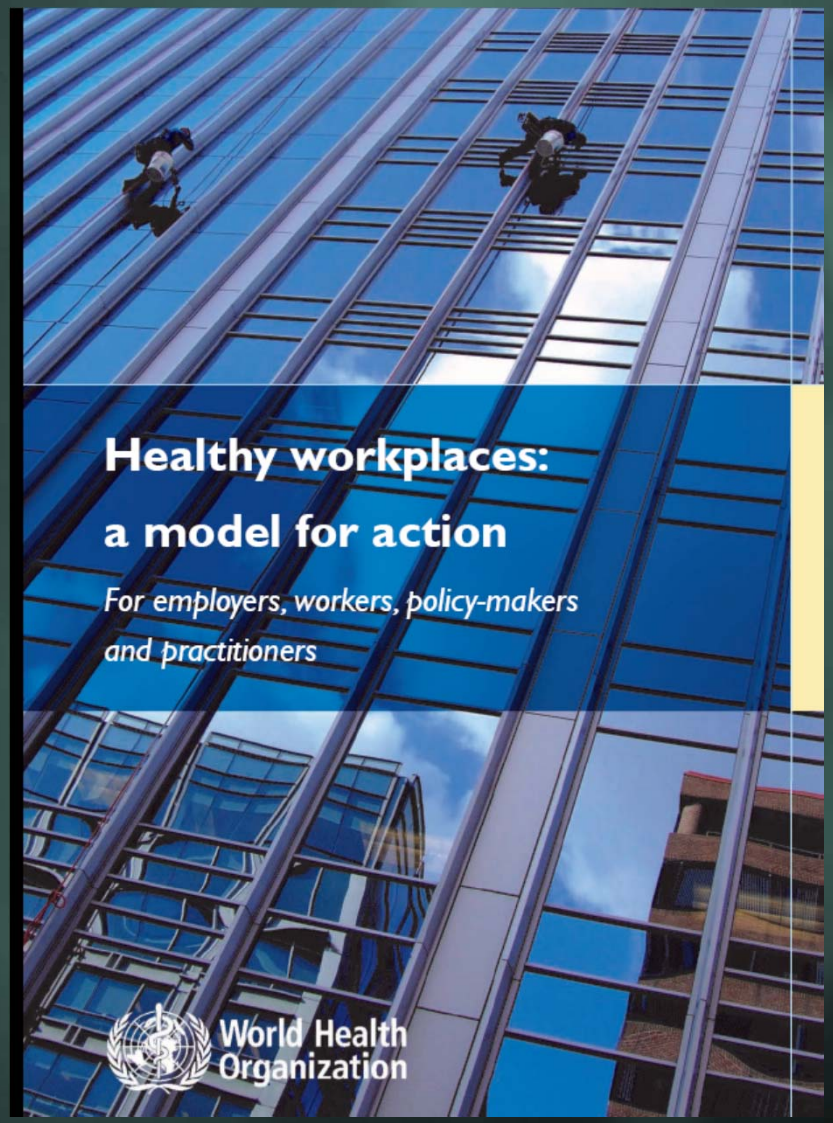
A holistic framework for action:



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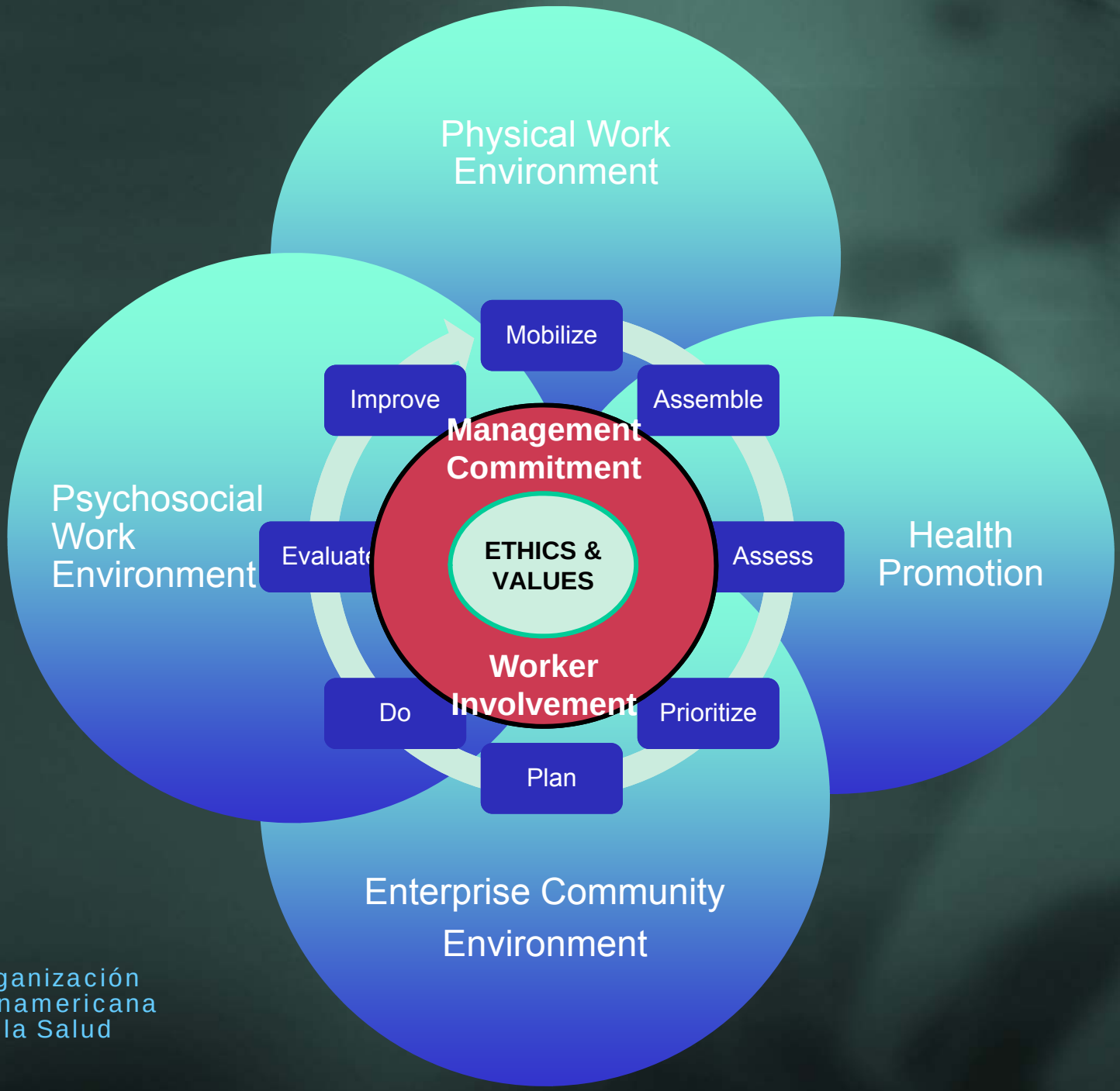
A holistic framework for action:



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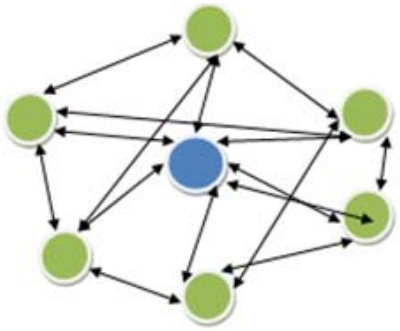
Strategy 1: Inter-sectorial Alliances

Regional Milestones on Workers' Health:

WHO/PAHO COLLABORATING CENTERS NETWORK

15 designated
4 postulated

Collaboration
Coordination
Commitment
Cooperation



Multilateral Networks

Protecting healthcare workers

Emphasis

- ✓ Policy Development
- ✓ Building technical capacity
  - ✓ Information system
  - ✓ Inter-programmatic approach
- ✓ Reaching the local level for sustainability
  - ✓ Formation of health and safety committees
  - ✓ Local training: multi-disciplinary approach “institutional culture of prevention”
- ✓ Participatory approach
- ✓ Communication

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SO 8

Promoting and protecting the health and safety of health-care workers

Strategy 2: Collaboration within PAHO

Health promotion

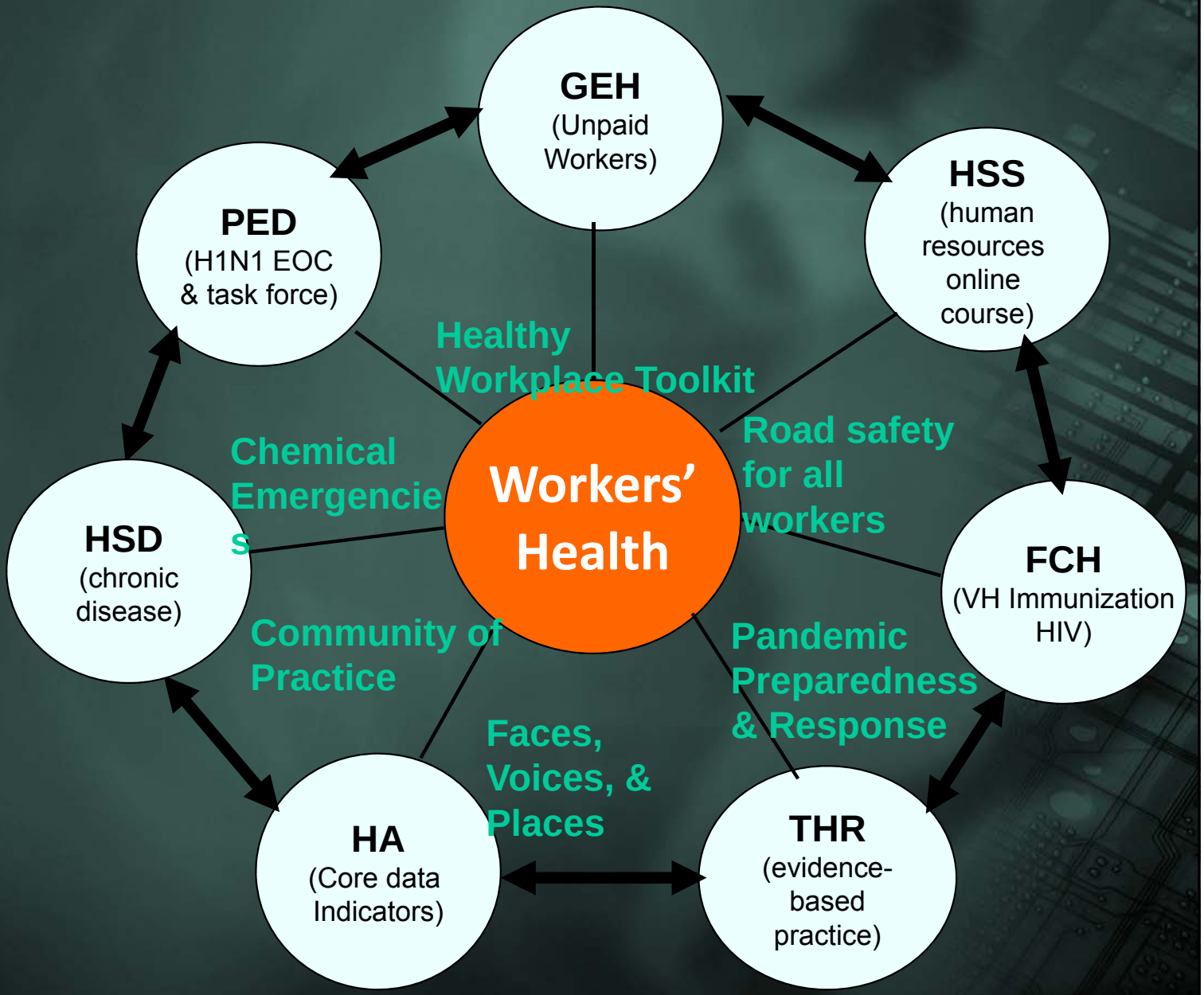
Gender

Primary health care

Human rights

Social protection

Indigenous rights



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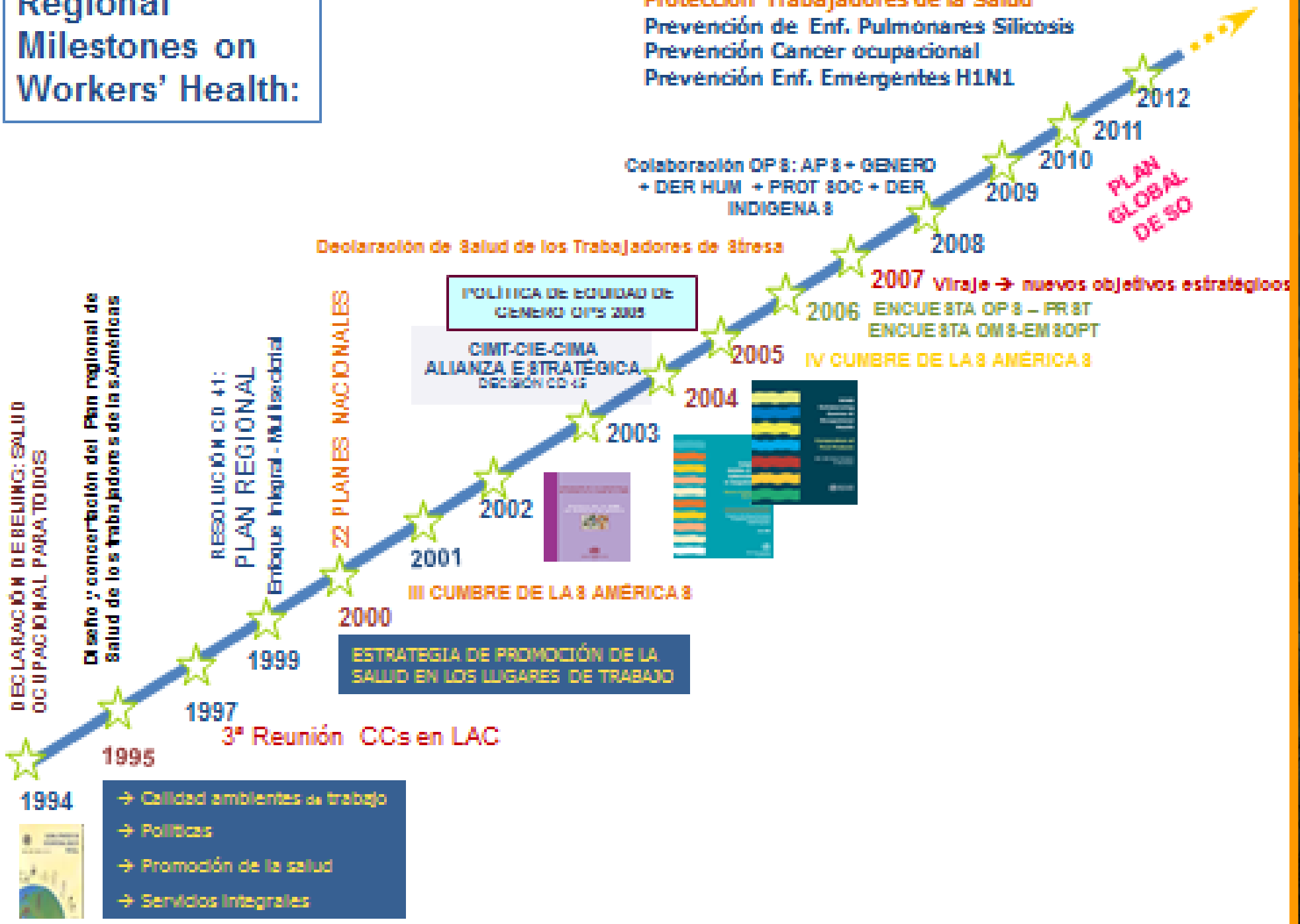
Regional Milestones on Workers' Health:



Pan American Health Organization
Regional Office of the World Health Organization

Regional Meeting on Viral Hepatitis

PAHO Collaborative Work
VH and Workers' Health

Julietta Rodriguez Guzman, MD SOH MScA
Regional Advisor on Workers' and Consumers' Health
Sustainable Development and Environmental Health SDE

March 1st and 2nd, 2012
Bogota, Colombia

World Health Organization

Reunión sobre Hepatitis Virales

Grupo de Trabajo

Sesión de la tarde

Bogotá, Colombia, 1-2 de marzo del 2012

Public Health Agency of Canada / Agence de santé publique du Canada
CDC
World Hepatitis Alliance
World Health Organization Americas
Pan American Health Organization

Hepatitis Vaccination in the Americas

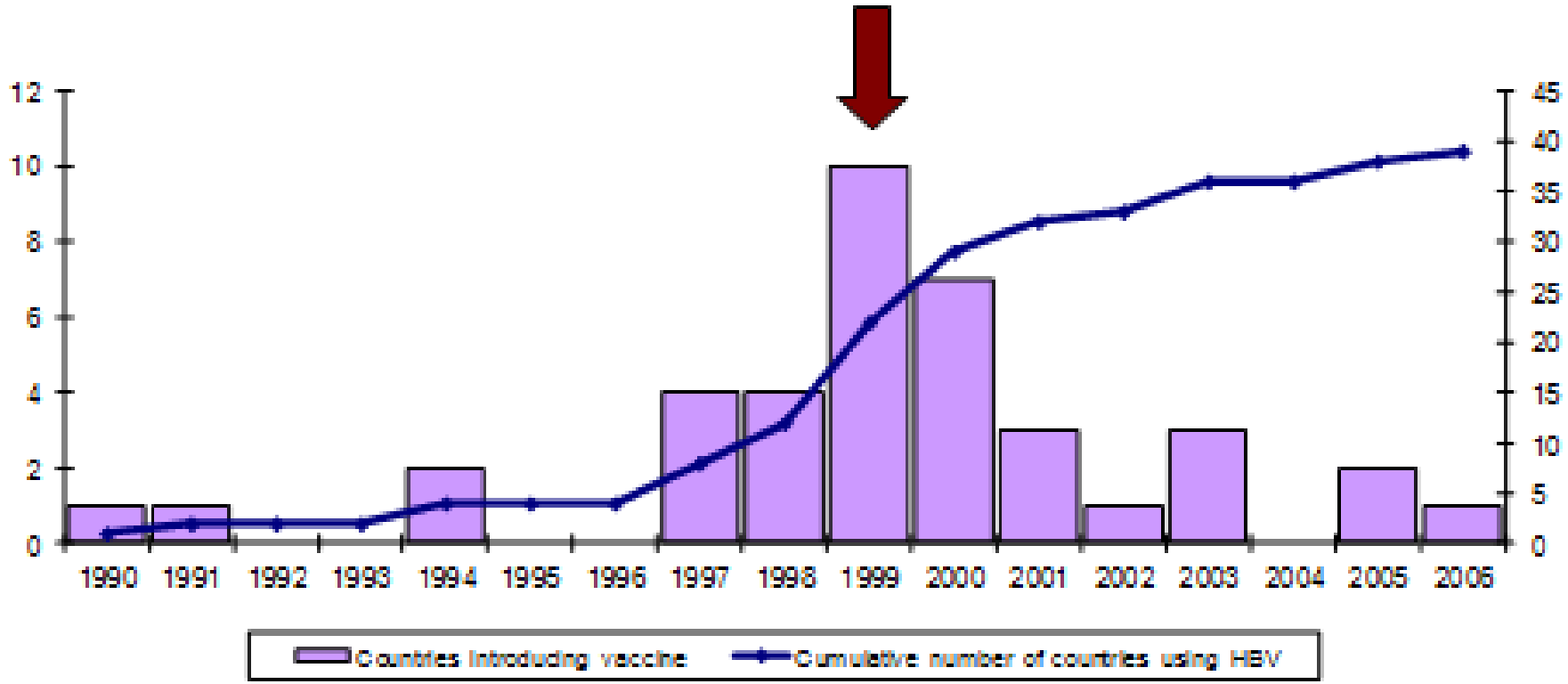
Alba Maria Ropero Alvarez
FCH/IM

Santa Fe de Bogota, March 1, 2012

Comprehensive Family Immunization Project (FCH/IM)

Org
Pa
de

Hepatitis B Vaccine Introduction in the Americas



39 out of 40 countries and territories using vaccine*

Haiti pending introduction (March 2012)

*(*not including French or Dutch territories)*

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de la Salud

Prevention of occupational transmission of infectious diseases: Initial Pilot Venezuela

Methodology

- **Policy Development**
- **Building technical capacity**
  - **Information system**
  - **Human development for human resources**
  - **Inter-programmatic approach**
- **Reaching the local level for sustainability**
  - **Formation of health and safety committees**
  - **Local training: multi-disciplinary approach "institutional culture of prevention"**
- **Train-the-trainers workshop**
  - **train leaders from 4 pilot hospitals and state officials with the toolkit**

Organización Panamericana de la Salud

World Health Organization

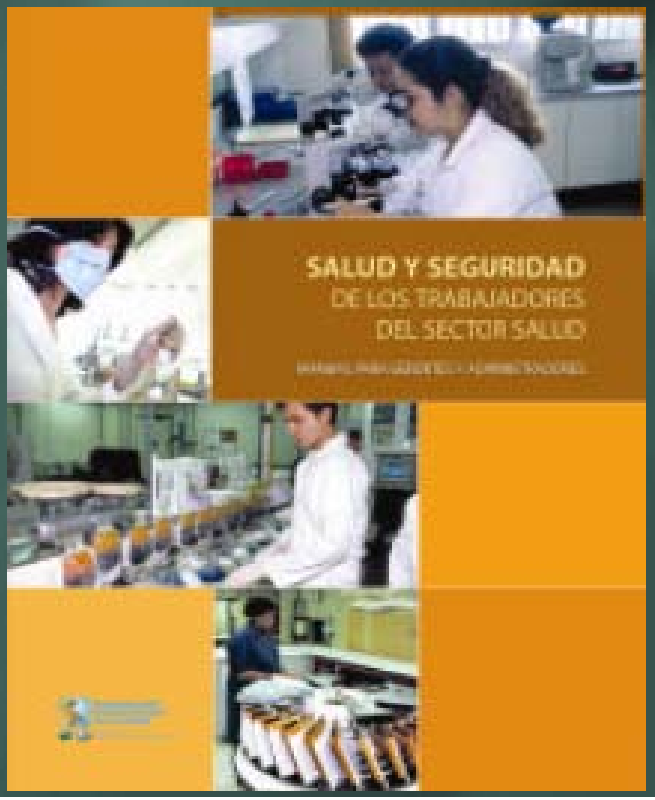
National Institute for Occupational Safety and Health NIOSH

CORPO SALUD

IAES "Dr. Arnoldo Gabaldon" Instituto de Altos Estudios "Dr. Arnoldo Gabaldon"

Resources

PAHO/WHO/NIOSH
toolkit on preventing needle stick injuries



EPINet™
Exposure Prevention Information Network

GeoLibrary.org

Cochrane Occupational Health Field
The reliable source of evidence in occupational health

de la Salud

National immunization initiative for health care workers: achieving decent work in Peru

- **Policy Development**
  - Presidential Mandate
  - National Plan for preventing NSI among HCWs
- **Immunization Campaign Outcomes**
  - Over 500 000 health care workers vaccinated HBV
  - Immunization in 34 regions
- **Training in Occupational Health & Safety**
  - **1,200** HCWs trained and **7,300** HCWs reached with the to[illegible]it

Organización Panamericana de la Salud

MINISTERIO DE SALUD DIRECCIÓN GENERAL DE SALUD AMBIENTAL DIGESA

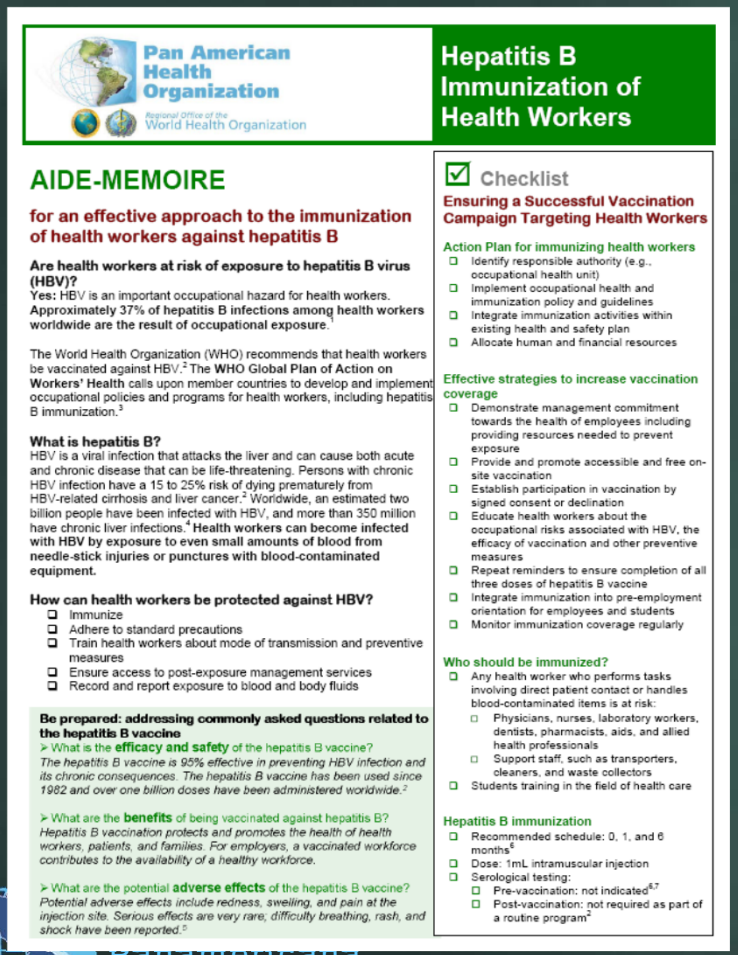
EsSalud MÁS SALUD PARA MÁS PERUANOS

Organización Panamericana de la Salud Oficina Regional de la Organización Mundial de la Salud

National Institute for Occupational Safety and Health NIOSH

World Health Organization

2009 Vaccination Week in the Americas



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Hepatitis B Immunization of Health Workers

AIDE-MEMOIRE

for an effective approach to the immunization of health workers against hepatitis B

Are health workers at risk of exposure to hepatitis B virus (HBV)?
Yes: HBV is an important occupational hazard for health workers. **Approximately 37% of hepatitis B infections among health workers worldwide are the result of occupational exposure.**[1]

The World Health Organization (WHO) recommends that health workers be vaccinated against HBV.[2] The **WHO Global Plan of Action on Workers' Health** calls upon member countries to develop and implement occupational policies and programs for health workers, including hepatitis B immunization.[3]

What is hepatitis B?
HBV is a viral infection that attacks the liver and can cause both acute and chronic disease that can be life-threatening. Persons with chronic HBV infection have a 15 to 25% risk of dying prematurely from HBV-related cirrhosis and liver cancer.[2] Worldwide, an estimated two billion people have been infected with HBV, and more than 350 million have chronic liver infections.[4] **Health workers can become infected with HBV by exposure to even small amounts of blood from needle-stick injuries or punctures with blood-contaminated equipment.**

How can health workers be protected against HBV?
- ❑ Immunize
- ❑ Adhere to standard precautions
- ❑ Train health workers about mode of transmission and preventive measures
- ❑ Ensure access to post-exposure management services
- ❑ Record and report exposure to blood and body fluids

Be prepared: addressing commonly asked questions related to the hepatitis B vaccine

➢ What is the **efficacy and safety** of the hepatitis B vaccine?
The hepatitis B vaccine is 95% effective in preventing HBV infection and its chronic consequences. The hepatitis B vaccine has been used since 1982 and over one billion doses have been administered worldwide.[2]

➢ What are the **benefits** of being vaccinated against hepatitis B?
Hepatitis B vaccination protects and promotes the health of health workers, patients, and families. For employers, a vaccinated workforce contributes to the availability of a healthy workforce.

➢ What are the potential **adverse effects** of the hepatitis B vaccine?
Potential adverse effects include redness, swelling, and pain at the injection site. Serious effects are very rare; difficulty breathing, rash, and shock have been reported.[5]

☑ Checklist

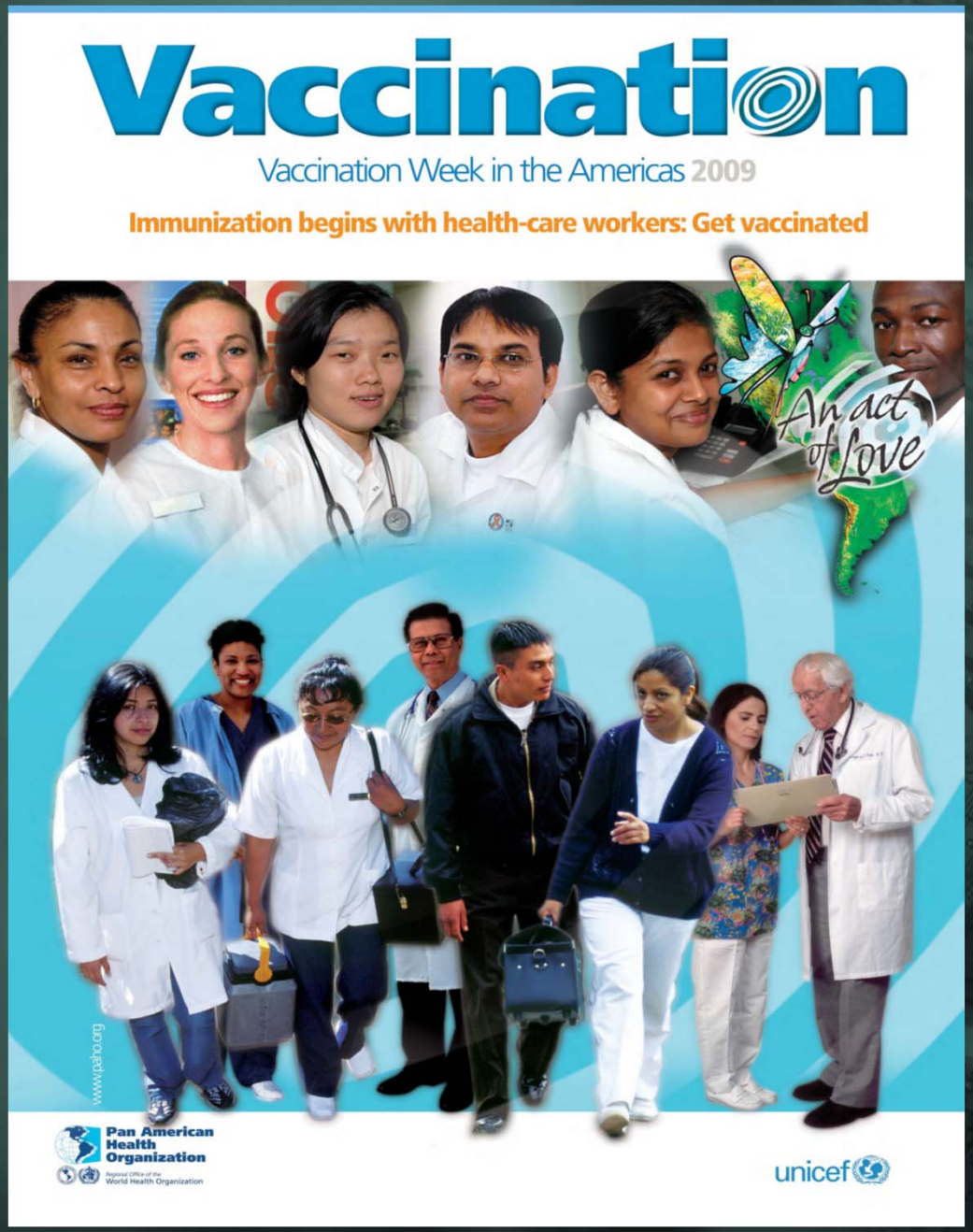
Ensuring a Successful Vaccination Campaign Targeting Health Workers

Action Plan for immunizing health workers
- ❑ Identify responsible authority (e.g., occupational health unit)
- ❑ Implement occupational health and immunization policy and guidelines
- ❑ Integrate immunization activities within existing health and safety plan
- ❑ Allocate human and financial resources

Effective strategies to increase vaccination coverage
- ❑ Demonstrate management commitment towards the health of employees including providing resources needed to prevent exposure
- ❑ Provide and promote accessible and free on-site vaccination
- ❑ Establish participation in vaccination by signed consent or declination
- ❑ Educate health workers about the occupational risks associated with HBV, the efficacy of vaccination and other preventive measures
- ❑ Repeat reminders to ensure completion of all three doses of hepatitis B vaccine
- ❑ Integrate immunization into pre-employment orientation for employees and students
- ❑ Monitor immunization coverage regularly

Who should be immunized?
- ❑ Any health worker who performs tasks involving direct patient contact or handles blood-contaminated items is at risk:
  - ❑ Physicians, nurses, laboratory workers, dentists, pharmacists, aids, and allied health professionals
  - ❑ Support staff, such as transporters, cleaners, and waste collectors
- ❑ Students training in the field of health care

Hepatitis B immunization
- ❑ Recommended schedule: 0, 1, and 6 months[6]
- ❑ Dose: 1mL intramuscular injection
- ❑ Serological testing:
  - ❑ Pre-vaccination: not indicated[6,7]
  - ❑ Post-vaccination: not required as part of a routine program[2]



Panamericana de la Salud

http://new.paho.org/hq/index.php?option=com_content&task=view&id=750&Itemid=834

Other country initiatives

- **Ecuador:** Healthy Hospitals (grant recipient)
  - Strengthening health and safety committees in urban and rural (Amazon)
  - Preventing occupational transmission of infectious diseases among HCWs: more than 400 HCWs trained

- **Trinidad and Tobago:** OH and infection control in health care facilities (grant recipient)
  - Sub-regional training
  - Technical assistance to MOH during the Summit of the Americas, Caribbean Games, Heads of States of Commonwealth meeting
  - Development of resources and tools
    - Online course for health-care workers
    - Workplace assessment tool

Ministerio de Salud Pública

BC Centre for Disease Control
AN AGENCY OF THE PROVINCIAL HEALTH SERVICES AUTHORITY

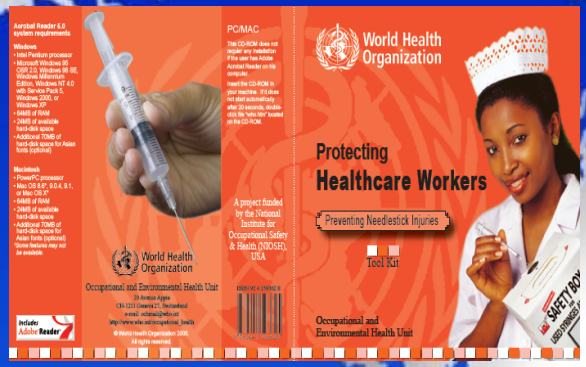
Canada

Organización Panamericana de la Salud

UBC

Vancouver CoastalHealth

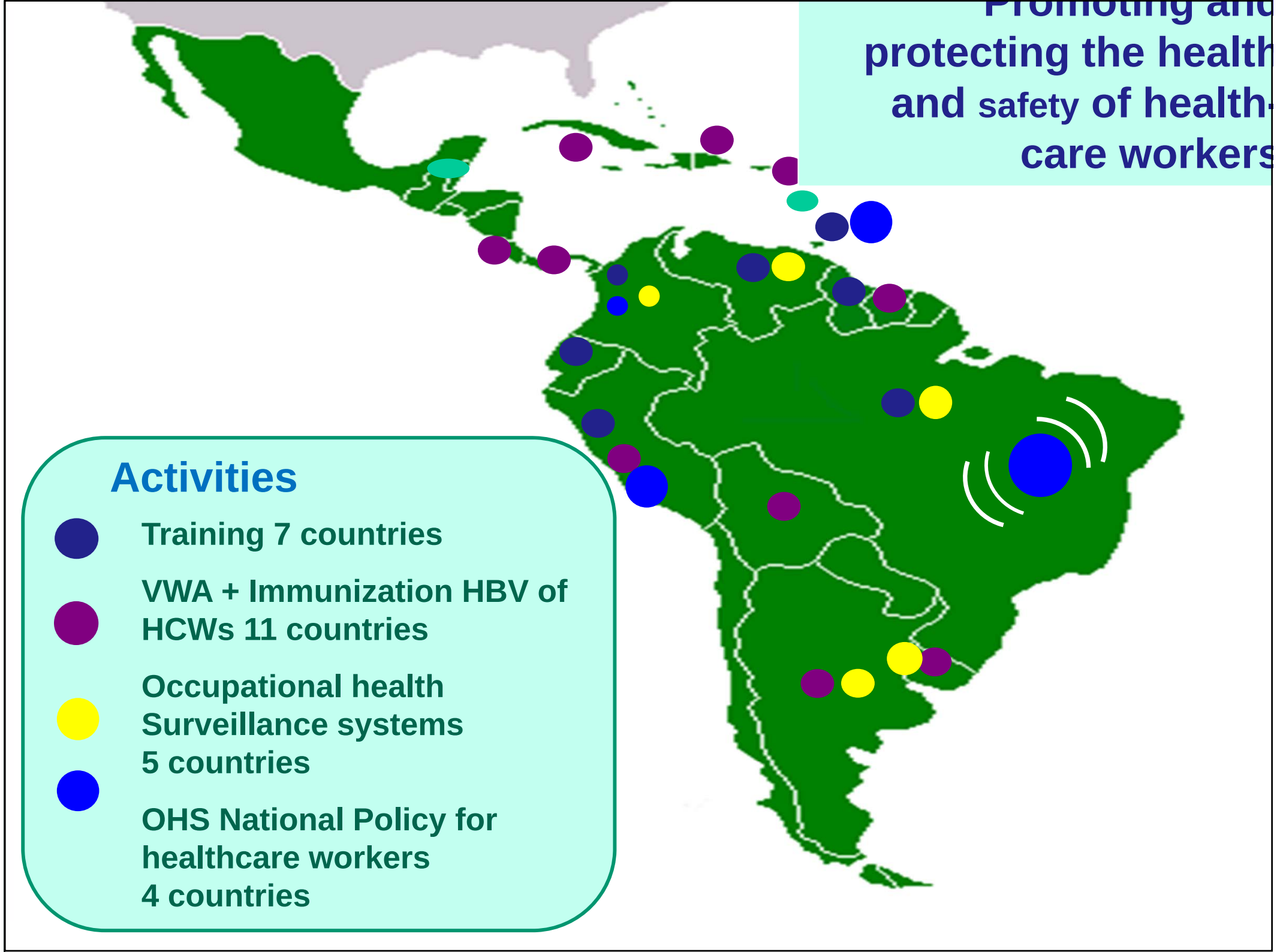
Protecting HCWs Globally / Train-the trainer / Toolkit

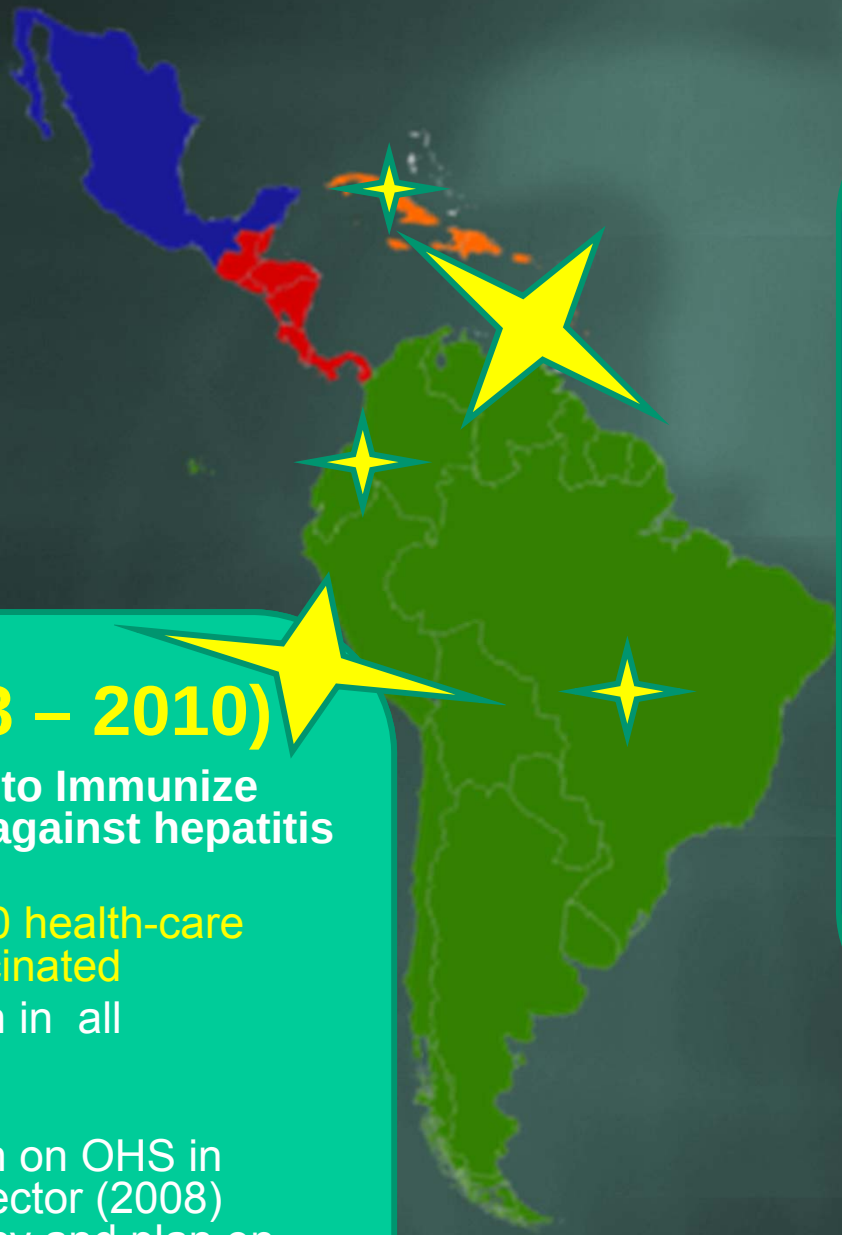


Pilot training in
South Africa
Tanzania
Vietnam

Now in:
Peru
Venezuela
Colombia
Ecuador
Brazil
Caribbean

Adapting/up-dating the WHO tool kit to Latin American HCW 2005 to 2012


protecting the health
and safety of health-
care workers
Activities
Training 7 countries
VWA + Immunization HBV of HCWs 11 countries
Occupational health Surveillance systems 5 countries
OHS National Policy for healthcare workers 4 countries



VENEZUELA (2007-2010)

- All 23 states
- 6,758 trainers
- 725 Health facilities
- 242 safety committees
- 13 national partners
- 13 OSH and PH curricula
- 1,690 students trained
- 75% HCW Immunized
- 50% reporting NSI
- Surveillance system
- 35,000 HCW reached

PERU (2008 – 2010)

Presidential decree to Immunize Health Workers against hepatitis B Campaign

- Over 300 000 health-care workers vaccinated
- Immunization in all 24regions

Policy Development

- National Plan on OHS in healthcare sector (2008)
- National policy and plan on prevention of HIV and TB among health workers (2010)

Training in OHS

- **1,200** HCW trained and
- **7,300** HCWs reached with toolkit.

The Caribbean (June 2011)

33 participants from 9 Caribbean countries were trained.

COLOMBIA (2010)

- April 2010 – Minister of Health creates National Commission for Occupational Health for the health sector workers

Regulation for Biological Risk prevention

- Preliminary steps for implementation of Surveillance for occupational exposure to BBP

- 150 HCWs trained with EPINet from 16 hospitales and 6 cities

- Immunization policy against Hep B - 24 HCW s trained safety devices /tool

BRAZIL (2010)

- 30 HCW from 7 Brazilian states and 11 Brazilian cities were trained safety devices & tool kit.
- NR32 Policy OHS in HC facilities/ MoL Tripartite/implemented in 2010/ include use of safety devices

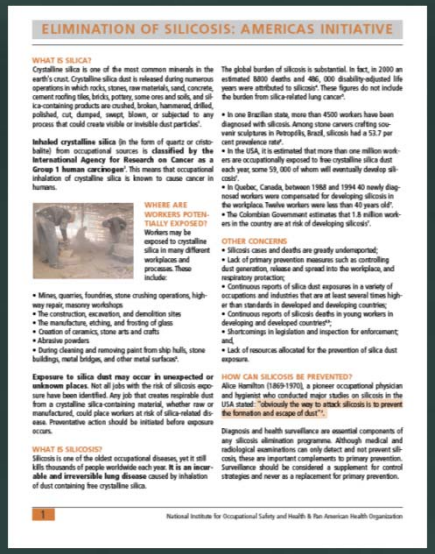
Pan American Health Organization

Regional Office of the World Health Organization

1902 - 2012

Information Dissemination

Publications


ELIMINATION OF SILICOSIS: AMERICAS INITIATIVE

WHAT IS SILICA?

Crystalline silica is one of the most common minerals in the earth's crust. Crystalline silica dust is released during numerous operations in which rocks, stones, raw materials, sand, concrete, cement roofing tiles, bricks, pottery, some ores and soils, and silica-containing products are crushed, broken, hammered, drilled, polished, cut, dumped, swept, blown, or subjected to any process that could create visible or invisible dust particles[1].

Inhaled crystalline silica (in the form of quartz or cristobalite) from occupational sources is **classified by the International Agency for Research on Cancer as a Group 1 human carcinogen**[2]. This means that occupational inhalation of crystalline silica is known to cause cancer in humans.

WHERE ARE WORKERS POTENTIALLY EXPOSED?

Workers may be exposed to crystalline silica in many different workplaces and processes. These include:

- Mines, quarries, foundries, stone crushing operations, highway repair, masonry workshops
- The construction, excavation, and demolition sites
- The manufacture, etching, and frosting of glass
- Creation of ceramics, stone arts and crafts
- Abrasive powders
- During cleaning and removing paint from ship hulls, stone buildings, metal bridges, and other metal surfaces[3].

Exposure to silica dust may occur in unexpected or unknown places. Not all jobs with the risk of silicosis exposure have been identified. Any job that creates respirable dust from a crystalline silica-containing material, whether raw or manufactured, could place workers at risk of silica-related disease. Preventative action should be initiated before exposure occurs.

WHAT IS SILICOSIS?

Silicosis is one of the oldest occupational diseases, yet it still kills thousands of people worldwide each year. **It is an incurable and irreversible lung disease** caused by inhalation of dust containing free crystalline silica.

The global burden of silicosis is substantial. In fact, in 2000 an estimated 8800 deaths and 496, 000 disability-adjusted life years were attributed to silicosis[4]. These figures do not include the burden from silica-related lung cancer[5].

- In one Brazilian state, more than 4500 workers have been diagnosed with silicosis. Among stone carvers crafting souvenir sculptures in Petropólis, Brazil, silicosis had a 53.7 per cent prevalence rate[6].
- In the USA, it is estimated that more than one million workers are occupationally exposed to free crystalline silica dust each year, some 59, 000 of whom will eventually develop silicosis[7].
- In Quebec, Canada, between 1988 and 1994 40 newly diagnosed workers were compensated for developing silicosis in the workplace. Twelve workers were less than 40 years old[8].
- The Colombian Government estimates that 1.8 million workers in the country are at risk of developing silicosis[9].

OTHER CONCERNS

- Silicosis cases and deaths are greatly underreported;
- Lack of primary prevention measures such as controlling dust generation, release and spread into the workplace, and respiratory protection;
- Continuous reports of silica dust exposures in a variety of occupations and industries that are at least several times higher than standards in developed and developing countries;
- Continuous reports of silicosis deaths in young workers in developing and developed countries[10];
- Shortcomings in legislation and inspection for enforcement; and,
- Lack of resources allocated for the prevention of silica dust exposure.

HOW CAN SILICOSIS BE PREVENTED?

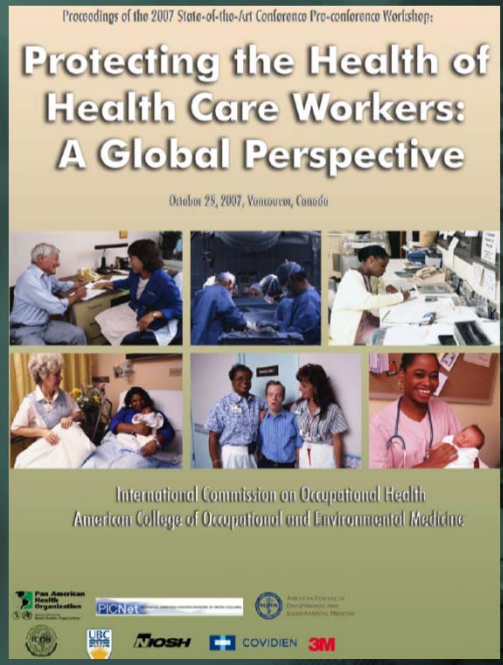
Alice Hamilton (1869-1970), a pioneer occupational physician and hygienist who conducted major studies on silicosis in the USA stated: "obviously the way to attack silicosis is to prevent the formation and escape of dust"[11].

Diagnosis and health surveillance are essential components of any silicosis elimination programme. Although medical and radiological examinations can only detect and not prevent silicosis, these are important complements to primary prevention. Surveillance should be considered a supplement for control strategies and never as a replacement for primary prevention.

1

National Institute for Occupational Safety and Health & Pan American Health Organization

- Cochrane systemic reviews
- Regional Contributions to the WHO Code of Practices for regional Recruitment and retention of HCW
- Healthy Hospitals Project in Ecuador, *Pan American Journal of Public Health*
- Protecting the health of HCW from infectious diseases in LAC Newsletter
- Protecting Healthcare Workers Health, *NIOSH*
- Aide Memoire about immunization of HCW
- Facts Sheet on Elimination of Silicosis and OHS and working conditions for HCW



- **Presentations**
- *International (5)*
- *Sub-regional (10)*
- *Elluminate (10)*

Organización Panamericana de la Salud

This project is being carried out with the assistance of the Government of Canada.

SOUTH-WEST REGIONAL HEALTH AUTHORITY

"Your Partners in Health"

OCCUPATIONAL HEALTH & INFECTION PREVENTION

BE AWARE...

All health care workers must take precautions to prevent injuries caused by needles, scalpels and other sharp instruments or devices.

1. **Never recap** used needles.
2. **Never bend** used needles.
3. **Close** SHARPS containers when 3/4 full.
4. **Transport** all sharps in kidney dish or tray.
5. **Dispose** all sharps immediately after use in sharps container.
6. **Never** reuse syringes.

Sponsored by:

Pan American Health Organization

BC Centre for Disease Control

Canada

Vancouver Coastal Health

UBC

Developed by the "Quality Improvement Department, SWRHA".

KEEP WASTE SEPARATE

At the Tobago Regional Health Authority, the procedure for waste disposal dictates that segregation should be carried out at the point of generation and separated according to the following three categories: **Infectious, Sharps** and **Non-Infectious Waste.** Each category of waste has its own container lined with color-coded plastic bags.

INFECTIOUS WASTE must be disposed of in containers/bins lined with RED PLASTIC BAGS.

DO PUT INFECTIOUS WASTE into a **RED BAG:**

- Bulk blood or body fluids, including pourable or drippable amounts of blood or body fluids, or items saturated with blood or body fluids.
- Microbiological laboratory waste, such as cultures derived from clinical specimens and discarded laboratory equipment that has contacted cultures.
- Human tissue
- Body parts

Use the RED BAG for INFECTIOUS WASTE ONLY.

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Pan American Health Organization
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110 1902 - 2012

World Day on OHS

- Acknowledges and creates awareness about Workers' Health in the Americas

- Compromises the PAHO/WHO executive management, other groups and technical areas, CCs, academia, civil society, workers, employers, unions, media and governments.

- Hundreds of participants from more than 25 countries

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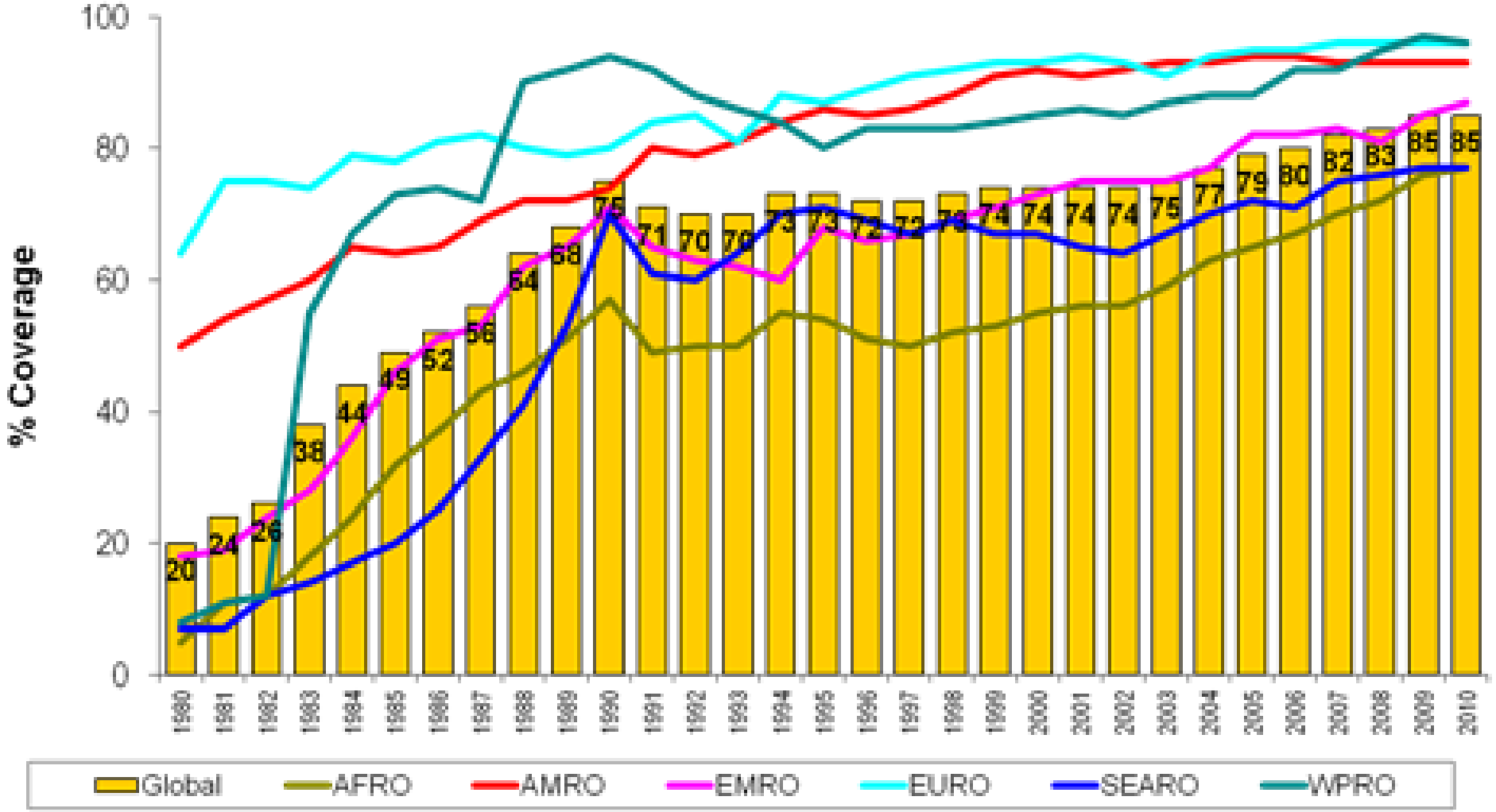
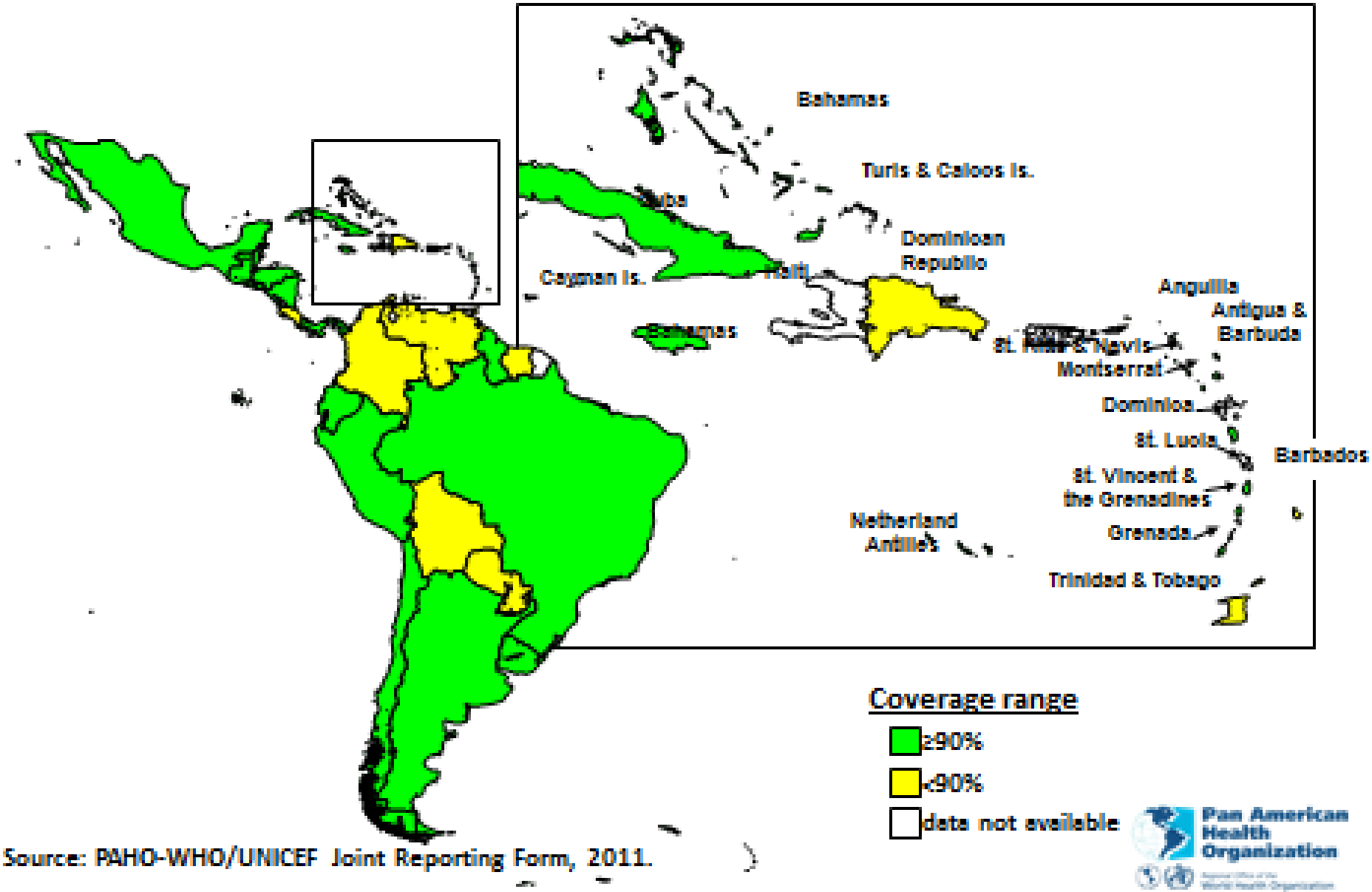
Global Immunization, DTP3/Penta Coverage 1980-2010



Source: WHO/UNICEF coverage estimates 2010 revision, July 2011; 193 WHO Member States. Data of slide: 08 July 2011

Pan American Health Organization

Reported HepB3 Coverage in Children <1 Year of Age, Latin America and the Caribbean, 2010

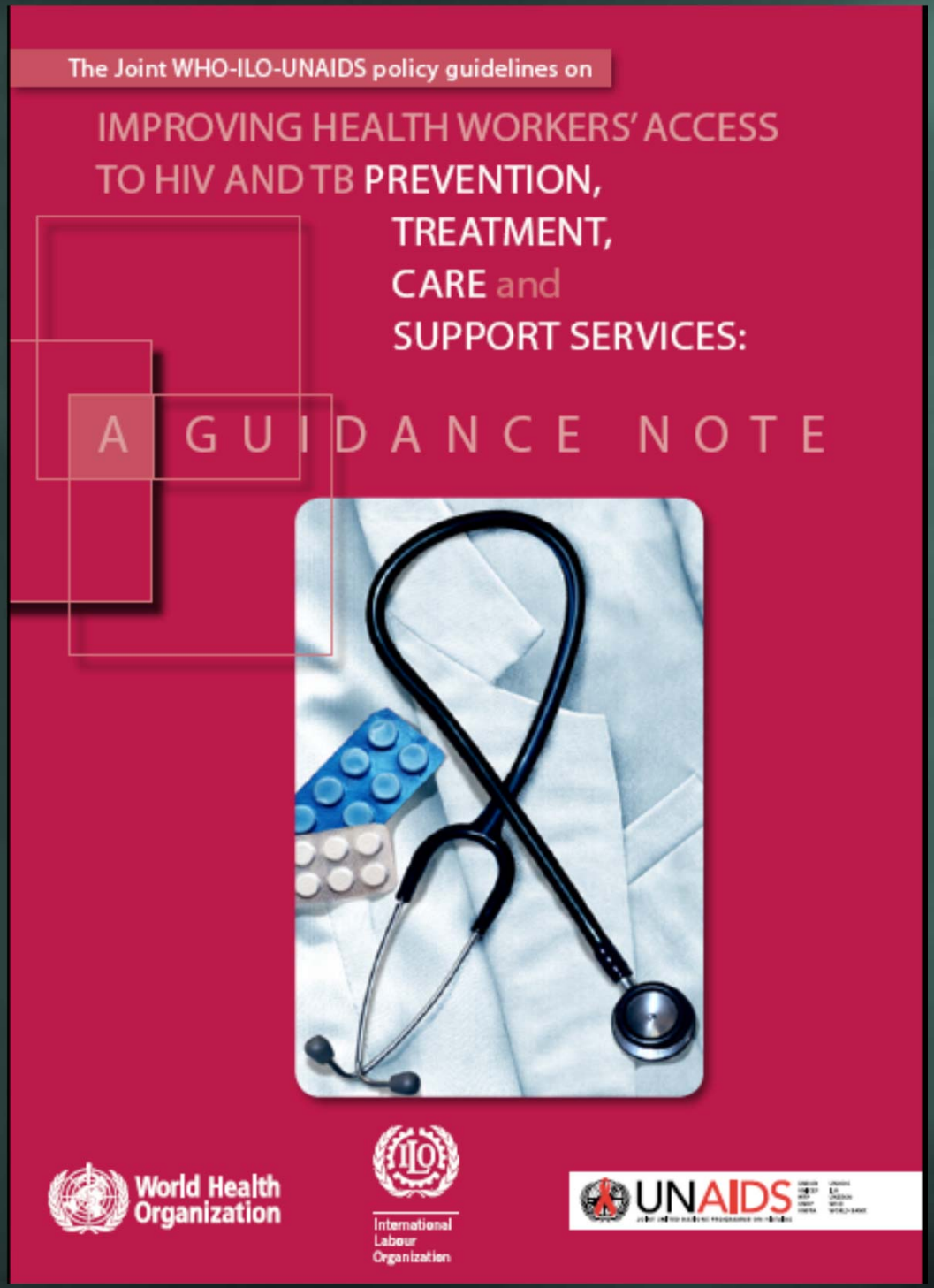


Source: PAHO-WHO/UNICEF Joint Reporting Form, 2011.

2o. ENCUENTRO REGIONAL LATINOAMERICANO Y DEL CARIBE "PROTECCIÓN DE LOS TRABAJADORES DEL SECTOR SALUD

Bogotá, Colombia - Mayo de 2010

Organización Panamericana de la Salud



- **Objective:** compile existing guidelines, and new evidence, into a coherent set of recommendations to improve access for health workers to HIV and TB services.

- **Collaborators:** multi-sectoral collaboration

- **Target audience:** policy makers, hospital managers, occupational health and infection control practioners, representatives of health workers.

Pan American Health Organization

Viral Hepatitis Working Group

VIRAL HEPATITIS
AN INTEGRATED PUBLIC HEALTH APPROACH IN LATI AMERICA AND THE CARIBBEAN COUNTRIES
Period 2012-2015

1st-2nd March, 2012

Regional Meeting on Viral Hepatitis

Bogota, Colombia

Organización Panamericana de la Salud

GOAL

To **reduce** the **burden** of disease from **viral hepatitis** in **LAC**

OBJECTIVES

GENERAL OBJECTIVE

SPECIFIC OBJECTIVES

STRATEGIC LINES

WHO Hepatitis strategic axes + Needs in LAC

Line of work1: Partnership, resource mobilization and communication

Line of work 2: Data collection and analysis for policy and action

Line of work 3: Prevention and control of transmission

Line of work 4: Screening, diagnosis, care, treatment and follow-up

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Line of work 5: Research

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Policy Guidance Recommendations

The 14 recommendations developed through the WHO guideline process have been grouped into:

A. **National Policies,** which include rights, legislation and social protection, prevention of stigma and discrimination (3 recommendations),

B. **Worksite Initiatives**, including Policies, Programmes and Training (9 recommendations), and

C. **Budget as well as Monitoring and Evaluation** which involve coordinated efforts at both the national and workplace levels (2 recommendations).

Organización Panamericana de la Salud

Thank you

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