Reduction of health risks through sound management of pesticides

CIPAC Symposium, Liège, 24 June 2014

Dr Morteza ZAIM & Dr Rajpal YADAV

mortezaaim@gmail.com

yadavraj@who.int
Vector-borne diseases
World Health Day 2014

Vector-borne diseases

50% of world population is at risk

Increased travel, trade and migration make even more people vulnerable.
Vector-borne diseases

- Vector control and heavy reliance on use of pesticides.
- Inadequate capacity of developing countries for sound management of public health pesticides throughout their life cycle.
WHOPES response

- **Creating an evidence-base** on global pesticide registration and management practices in countries endemic for, or at risk of, major vector-borne disease, to inform future activities and investments for sound management of public health pesticides;

- **Enhancing awareness and increased political support** on the judicious use of public health pesticides and the resulting reduction of health risks through information exchange;

- **Developing peer-reviewed, authoritative guidelines, norms and standards** on different aspects of pesticide registration and management;

- **Providing technical support and training to priority countries** on public health pesticide registration, regulation and management; and

- **Facilitating multi-sectoral approach and collaboration** to pesticide management at international and national levels.
Creating an evidence-base

- Landscaping pesticide registration and management practices
  In 113 countries (80% response rate; 94% of population targeted)
Creating an evidence-base

- Global insecticide use (125 countries)
New tools are more needed than ever to address resistance

Widespread evidence of resistance to pyrethroids puts global efforts at risk

Phenotypic resistance indicated by bioassays

- Resistance to at least pyrethroids
- Resistance to DDT only
- Malaria endemic countries with no reports of IR
Creating an evidence-base

- Mapping of innovation process for introducing innovative vector control tools and opportunities for improvement

Vector Control Advisory Group – to assess the public health value, “proof of principle” (epidemiological impact) of new tools, approaches and technologies for vector control
Enhancing awareness and increased political support

13 countries - 5 WHO Regions
Representatives of MoA, MoH, MoE

* Status of pesticide management, gaps, opportunities and proposed actions
Enhancing awareness and increased political support


  
  - Regional Resolution on Managing the use of public health pesticides in the face of the increasing burden of vector-borne diseases (EM/RC58/R.10)
Developing peer-reviewed, authoritative guidelines, norms and standards

- Guidelines for pesticide management
  - FAO/WHO Guidelines for the registration of pesticides
  - FAO/WHO Guidelines on data requirement for the registration of pesticides
  - FAO/WHO Guidelines for quality control of pesticides
Developing peer-reviewed, authoritative guidelines, norms and standards

- Guidelines for pesticide management
  - Guidelines for procuring public health pesticides
Developing peer-reviewed, authoritative guidelines, norms and standards

• Guidelines for pesticide management
  – Guidelines on public health pesticide management policy
Developing peer-reviewed, authoritative guidelines, norms and standards

- Guidelines for efficacy testing of PHPs
Developing peer-reviewed, authoritative guidelines, norms and standards

- Models for risk assessment
Developing peer-reviewed, authoritative guidelines, norms and standards

- Standards for quality control of pesticides

<table>
<thead>
<tr>
<th></th>
<th>Reference profile/specification</th>
<th>Extension of specifications</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>JMPS 2008, Germany</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>JMPS 2009, El Salvador</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>JMPS 2010, Slovenia</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>JMPS 2011, China</td>
<td>4</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>JMPS 2012, Ireland</td>
<td>4</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>JMPS 2013, Ukraine</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>24</strong></td>
<td><strong>44</strong></td>
</tr>
</tbody>
</table>
Developing peer-reviewed, authoritative guidelines, norms and standards

- Training tools on pesticide specifications
Providing technical support and training to priority countries

- 12 countries in 5 WHO regions
  - Situation analysis and development of national action plan
  - Assessment of capacity of pesticide quality control laboratory
  - Training on development of pesticide specifications
Frequency of topics in national action plans

- Legislation
- Regulatory control
- Quality control
- Procurement
- Formulation and repackaging
- Storage and transport
- Distribution
- Application
- Insecticide resistance
- Pesticide poisoning/exposure
- Efficacy testing
- Disposal and waste
- Public education
- Information exchange
- Regional cooperation

% of countries
Providing technical support and training to priority countries

• Increasing capacity for pesticide evaluation
  – WHOPES network doubled since 2009
Facilitating multi-sectoral approaches and collaboration

- National level
  - National Steering Committees
- International level
  - FAO (JMPM), UNEP
- Collaboration with industry
Challenging task ahead

• General weakness of pesticide legislation and national policy for pesticide management

• Management of PH pesticides is a neglected area with insufficient resources

• Current activities by different donors and agencies are fragmented
Way forward

• Streamline sound management of public health pesticides into national health policy;
• Develop comprehensive legislation for the management of pesticides, including public health pesticides, throughout all stages of their life-cycle;
• Establish a national mechanism to ensure inter-sectoral cooperation for development and effective implementation of pesticide legislation; and
• Allocate sufficient resources for effective implementation of pesticide legislation.
International Code of Conduct on pesticide management

• 34th FAO Conference
• 134th Session of WHO Executive Board