Draft recommendations on managing old LLINs

MPAC meeting
WHO HQ, 12 March 2014

Vector Control Unit/GMP
Managing old LLINs

What is the problem?

- Remarkable success in the last 10 years – deaths reduced by 42% globally and 49% in Africa
- Result of scaling-up of vector control interventions among others
- For example, between 2004-2013 – about 700 million nets distributed
- These nets and their packaging contribute significantly to plastic waste
- However, most countries do not have the resources to collect and manage their disposal
Managing old LLINs

How big is the problem?

- Approx. 133 million nets are delivered to Africa annually
- Assume a net weighs 600g and plastic package 150g
- On average 1 net covers 1.5 people and is used for 2.5 years
- Based on these calculations, nets contribute a total of approx. 100,000 tones per year – approx. 200g plastic/person/year
- Using data from Ghana of 6-12kg/person/year in total, nets contribute about 2-5% of total plastic waste
- In context – 100kg/person/year in N. America and W. Europe
- Although amount of insecticide is small, plastic packaging is considered a pesticide product/container
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What happens when nets are too old to offer protection?

- Pilot studies in three countries – Kenya, Madagascar and Tanzania plus extensive review by USAID
- These are used as window screening, room dividers, crop protection, fencing for chickens, bags for seed protection, sheet beneath mattresses - because they are perceived ineffective for malaria protection
- But once they do not serve any purpose, they are generally disposed along with other household waste
- This practice could potentially cause adverse environmental /health effects especially burning these in the open
- While WHO issued recommendations to manage plastic packaging in 2011, there were none issued for old LLINs
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Who is responsible for the management of plastic waste?

- Ministries of Environment (regulatory authorities) – responsible for setting and enforcing laws/regulations to manage plastic waste broadly
- Lack data on the number of countries with regulations that include old LLINs and their packaging (Rwanda and Senegal ban the importation of plastic bags)
- Few countries though have procedures to deal with pesticide-contaminated plastics e.g. Colombia
- Unrealistic to expect NMCPs to address this problem single-handedly
Managing old LLINs

Draft recommendations for MPAC consideration

- Country programmes should **not** attempt to collect old LLINs unless same number or more are **replaced** and **safe and sustainable** plans are in place to manage them.

- Collection of old LLINs should **not** divert the efforts and attention of malaria control programmes away from their core malaria control duties, including from maintaining universal coverage.

- If such material **is** collected, it should **not** be burned in the open air and communities must be made aware of the potential environmental and health hazards.

- Residents should be advised to continue to use an old LLIN, even if it has holes, until a replacement is available.

- National control programmes should work with national environment authorities to ensure that there are regulations for the management of old nets and that such regulations are enforced.
Thank you!