Serious gaming
to support insecticide resistance management

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Serious Gaming

- Definition
- Evidence
- Approach
- Where we are aiming to go
- Need
- Learning & Communication
- Where we are
- Need
The Need

Vector Control
Serious gaming to support insecticide resistance management

**The Need**

- Challenge
- Information
- Evidence

**Insecticide Resistance Challenge**

**Disseminate & Communicate**

- Measure of success
  - Number of documents printed, distributed
  - Availability online
  - Number of workshops facilitated
  - Number of training sessions held

**Programs**

- Measure of success
- Know, Understand
- Internalize (you to our)
- Act

**Translate into Policy & Practice**

**Impact**
Serious games “have an explicit and carefully thought-out educational purpose and are not intended to be played primarily for amusement. This does not mean that serious games are not, or should not be, entertaining” (Abt, 1970)

Serious Games have a mental contest, played with a computer in accordance with specific rules that uses entertainment to further government or corporate training, education, health, public policy, and strategic communication objectives“ (Mike Zyda, 2005)
The Evidence

Meta-analysis studies of serious games


Serious gaming to support insecticide resistance management

The Evidence

Meta-analysis studies of serious games


The Evidence

- More effective than conventional instruction methods.
- Should be supplemented with other instruction methods.
- Should be played in multiple training sessions.
- Should be played in group.
- Games appear to increase learner confidence (self-efficacy).
- Games help increase declarative knowledge, procedural knowledge and retention over traditional non-interactive training.
- Trainees learned more, relative to a comparison group.
- Learning occurred when learners could access the game as many times as desired.
- The most frequently occurring outcomes and impacts of games for learning were knowledge acquisition/content understanding and affective and motivational outcomes.

http://karlkapp.com
1. Explore
Explore serious gaming for communication and learning.

2. Determine
Determine if gaming is embraced by potential end users and how they see the future and potential use within vector control programmes.

3. Expand
Mobilize the vector control community to assist with the development of a comprehensive insecticide resistance management game in line with operational feedback and needs.

4. Test
Beta test the game, predominantly with end users.

5. Deliver
Support the delivery of the final game to vector control programmes.

6. Track
Track the impact of the game over time on: knowledge, attitude, policy, practices, decisions and outcomes.

7. Review
Review new body of evidence and update the gaming tool for optimal impact.
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Pilot

In-country & Online

Objective
Investigate the potential for serious gaming as an enabling tool to assist with communication & learning - IRM

• 8 participants in Malawi

• 15 participants in Zambia

- Entomology
- Environmental Health
- VC Programme Management
- NGO
- PHC
- Research
- Gov - other

• All participants completed an anonymous pre and post questionnaire
Results

Games can be used for learning
Games can be used for vector control
IRM plays a vital role in vector control
IRM is complex and hard to understand
I enjoy playing games
I want to know more about IRM

52% Regularly referred to and read GPIRM
- 92% Found IRM complex and hard to understand
- 92% Wanted to know more.

Use of data and information

# of reports accessed vs # of reports available
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Where we are aiming to go

Support traditional Learning & Communication Approaches

Develop an enabling communication and learning tool that is:

- Adaptable – disease, language, graphics, local situation
- Effective, Free and Available
- Sustainable
- Standardized
- Sensitive to needs – pilot feedback
- Current – New paradigms
  - AIs
  - Approaches
  - Tools
  - Products
  - Evidence
- Realistic, creates an immersive interactive learning experience
Coined in 2001 by researcher Marc Prensky, digital native is used to describe people born after 1980. Digital migrants?
To mobilize the vector control community and other stakeholders to support disease control & elimination programmes in insecticide resistance management, effectively communicating current guidelines and evidence to optimise the impact of interventions.
There are a number of ways you can get involved

Get Gaming
For a chance to play the pilot version of the game just get in contact, we’re always after more data to support the next phase of development.

Get Talking
If you know of a public health event or meeting where the game would make a suitable addition then let us know.

Get Modelling
Model are very useful to guide game development

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http://www.weignitefun.com/IRS
Malaria control strategies are built upon the fundamental goal of vector control. The two main methods of intervention include the use of long-lasting insecticidal nets (LLINs) and indoor residual spraying (IRS).

The goal of this experience is to provide you, the player, with a general overview of insecticide resistance management. Using traditional game play mechanics, you will explore the tools, practices and decisions necessary to address proper vector control. The actions and decisions you make will all have an impact on the outcome of the scenario and your overall success.

Good luck!

PLAY