

2nd Annual

Wireless Healthcare

Asia Summit

23 – 24 April 2012
Singapore

Stakeholder's Action Plan

Implementing mHealth Going Forward

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1. Stakeholders interest towards mHealth

2. Implementation Issues

3. Call to Action: Key Success Factors

1. Stakeholders' interest towards mHealth

1. Where should the interest be?

2. Need to bind stakeholders together

Stakeholders' interest – where should it be*?

Treatment Lifecycle



Key Issues

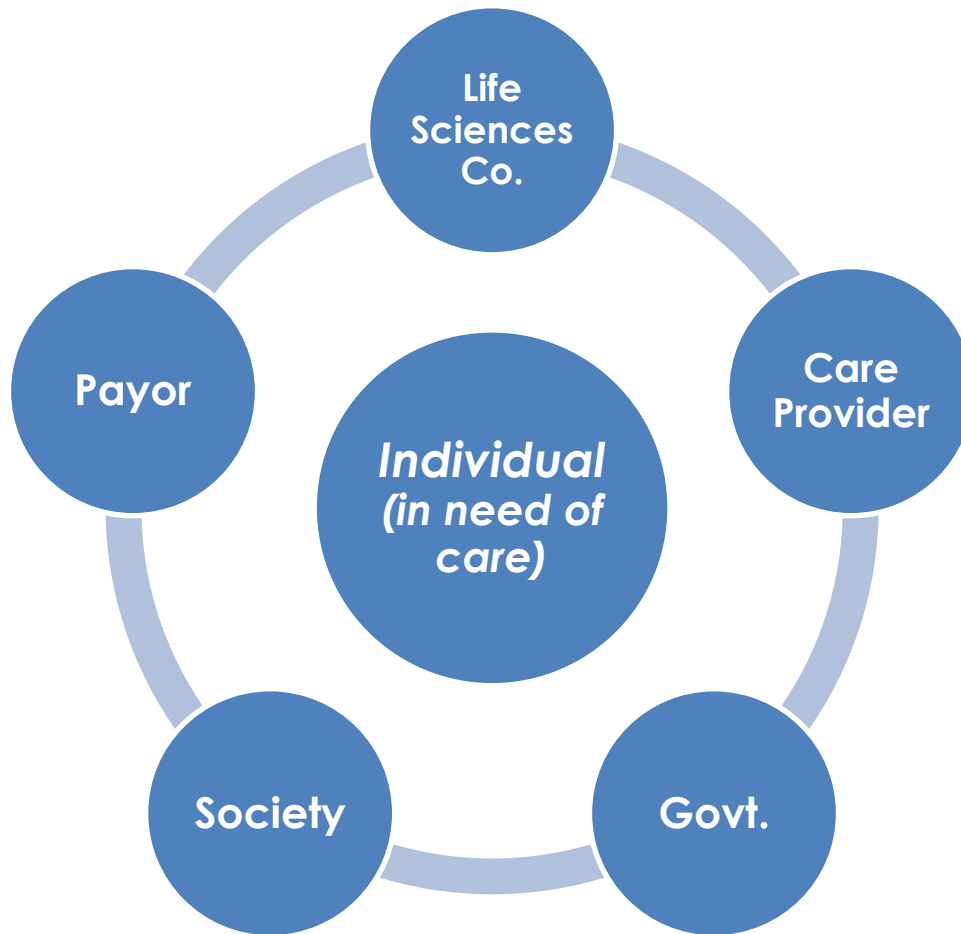
- reach / access & associated costs
- screening & diagnosis integrity
- organization capacity issues
- screening method (technology)
- cost of treatment / monitoring
- payor / patient / provider dynamics
- delivery of care

Multiplicity of factors at play (across most Asian markets) mean companies cannot address all by themselves

Need for strong partnerships

** especially in developing Asian markets*

Need to bind stakeholders together



Key issues:

- (national) priorities
- treatment penetration
- no. of stakeholders involved → efficiency issues
- outcomes → treatment effectiveness
- system's cost of care

Technology as an enabler

1. Stakeholders interest towards mHealth

2. Implementation Issues

3. Call to Action: Key Success Factors

2. Implementation issues

1. Healthcare needs come first

2. Technology issues

3. Enablers

Healthcare needs come first, 1 of 3

illustration: Cervical Cancer in Vietnam

Challenges in current state

- **Severe under-reporting**
→ inadequate screening (0.7 Mn. out of ~25Mn.), despite low cost (US\$ 1.5 pap smear)
- **Late referral & treatment**
→ ~5,500 diagnosed
- **Lack of awareness & access to facilities** → ~30% urban population; no national screening effort

Existing (incl. health) eco-system

- **Overall cost not significant** for pap smear test (also not difficult to administer)
- Spread of public (& private) hospitals
- Entities with national reach exist that can take health issues to masses → education / preventive care efforts

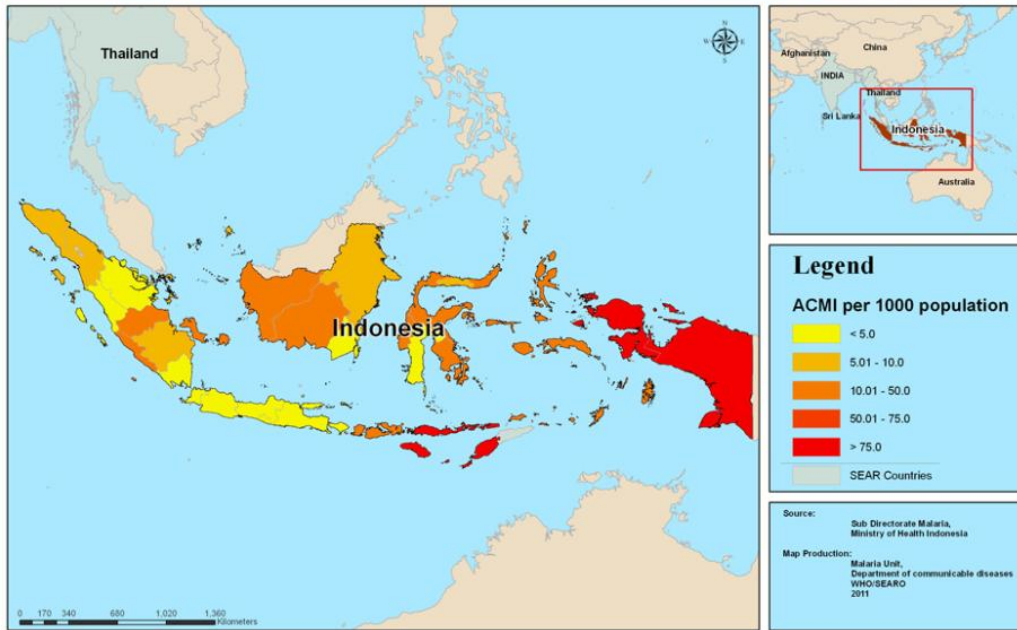
Conditions exist to significantly expand coverage & effectively manage the problem

Cervical Cancer, Vietnam

1. **How can mobile technology be used to contain this problem?**
2. **What catalyst is needed to solve screening/diagnosis issues?**

Healthcare needs come first, 2 of 3 illustration: Malaria in Indonesia

District-wise distribution of ACMI (Annual Clinical Malaria Incidence) in Indonesia, 2010



The boundaries and name shown on this map do not imply any expression of any opinion on this map concerning the legal status of any country, territory, city or area of its authorities or concerning the delimitation of its frontiers or boundaries

Challenges in current state:

- Est. 30,000 Indonesians die each year from malaria
- Global (read: multi-lateral) funding increased significantly since 2008, though govt. funding has reduced
- Est. total funds requirement is ~US\$ 400 Mn., of which only ~1/10th is being spent

Malaria, Indonesia

1. How can mobile technology be used to contain this problem?
2. What catalyst is needed to solve screening/diagnosis issues?

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Source: WHO, Global Fund, UNICEF, Ministry of Health Indonesia (2009, 2010)

Healthcare needs come first, 3 of 3

illustration: Diabetes in India

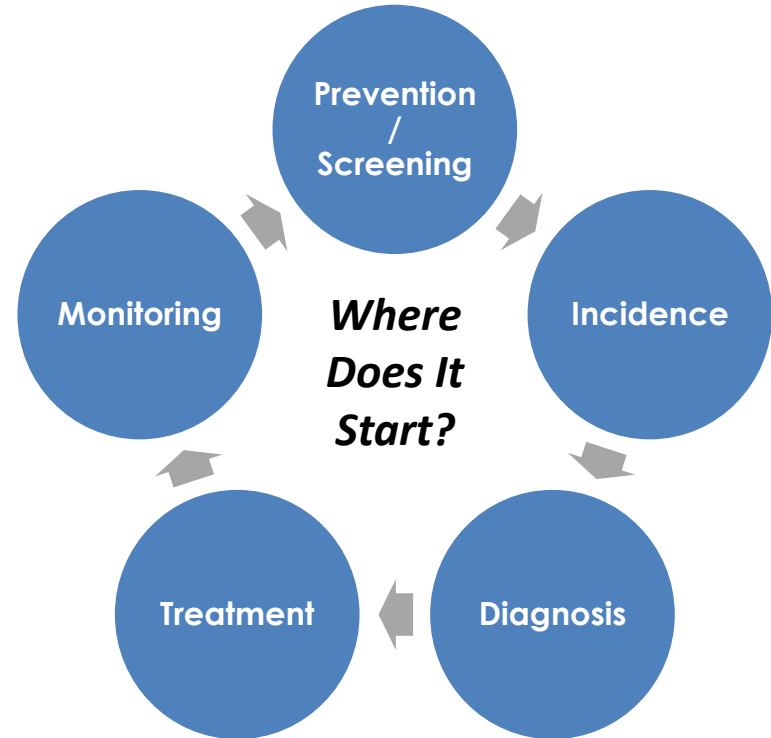
Challenges in current state

Burden of Disease

- **>61 Mn. diabetics*** → to increase to 100 Mn. by 2030
- **Mortality:** ~1 Mn. due to diabetes & related causes (2011)

Structural Issues

- **State-led** health systems/laws/effort
- **Mainly out-of-pocket** funding
- **Private sector driven;** only pockets of govt. intervention



Diabetes, India

1. **How can mobile technology be used to contain this problem?**
2. **What catalyst is needed to solve treatment/monitoring issues?**

Source: International Diabetes Federation (2011), news reports

* among people aged 20-79 yrs.



Broadcast & Feedback

- sms/mms-based messages



Platform

- data storage & usage
- electronic health records



Consultation

- diagnosis & monitoring-based applications

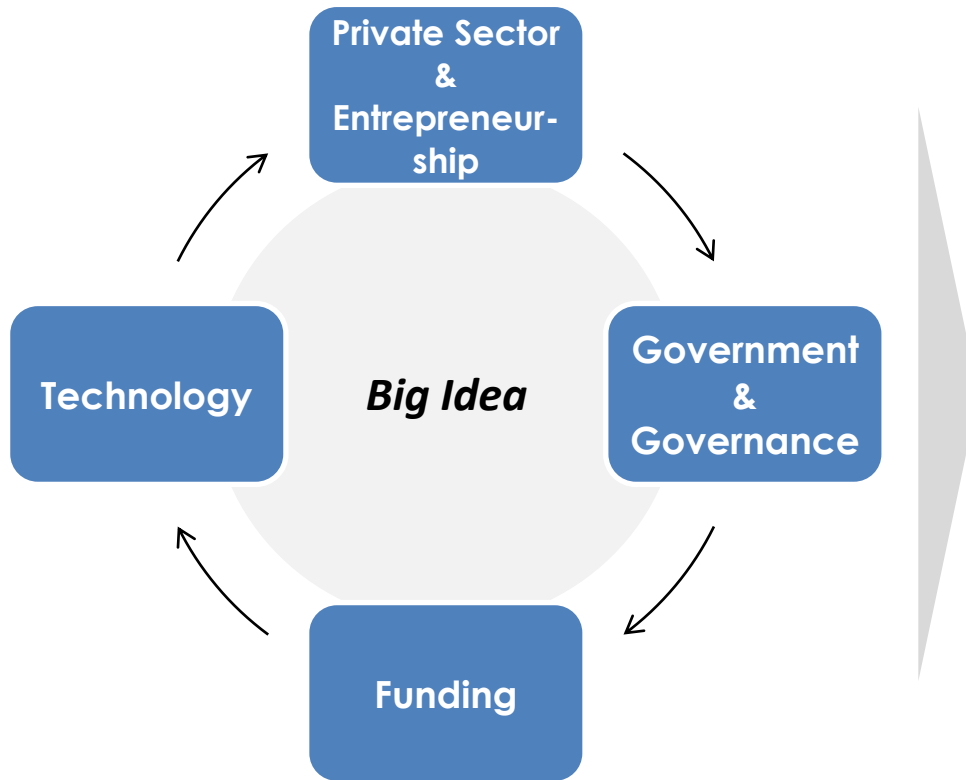
Key Issues to address*

1. Policy
2. Technology & deployment (incl. infrastructure & cost)
3. Platform (& inter-operability)
4. Priorities
5. Local context (read: apps.)
6. Awareness & knowledge (among users)
7. Legal issues

* especially in developing Asian markets; not in any order



Enablers – catalyst to implementation



Make it a virtuous cycle

Rules:

- 1. Align** – key priority(ies), issues facing implementation, funding & funders
- 2. Collaborate** – stakeholders coming together are all good, but commercial interest cannot take a back seat
- 3. Target** – time-based goals and who (all) will it benefit must be clear

Enablers – healthcare initiatives abound

illustration: India



Initiative to **use mobile technologies** to collect data on disease surveillance & public health programs

- Empower grass-roots worker to report information real-time
- Monitor progress of on-going programs
- Early detection & intervention

Key Challenges

- Funding
- Programs (read: specific objectives)
- Coverage (read: jurisdiction of health matters)
- Partners

(Select) Projects

- Integrated Disease Surveillance Program
- Surveillance program for Maternal & Child Health
- Community-based screening for Cervical Cancer

Private enterprise initiatives, unless scaled up run risks, similar to any other commercial venture

Enablers – governance initiatives can be leveraged

illustration: Indonesia



How It Works

Photograph & send through internet



Verified at the situation room



Inform highest decision-making authority

Public participation in government programs monitoring is improving governance

- In **Dec 2009**, the government set up the Presidential Unit for Development Supervision & Control (**UKP4**)
- In **Nov 2011**, it launched a web & sms-accessible platform* (LAPOR, or Public Participation Information System) to provide **real-time information**

* currently only available on Android & Blackberry OS

1. Stakeholders interest towards mHealth

2. Implementation Issues

3. Call to Action: Key Success Factors

3. Call to Action for mHealth initiatives: Key Success Factors

1. It is not (only) about technology



healthcare needs comes first i.e., whether for (prevention, diagnosis, or treatment)?

2. Partnerships are essential (& key)



it determines not only nature of commercial interest, but also sustainability

3. Scale created will embed 'value' in the mHealth initiative



emerging market realities need to be applied before long-term value is created*

4. Where (& how) it starts is a key determinant of long-term success



commercial organizations may not alone (be able to) sustain (& scale up) the effort

5. A open-systems approach may well be a necessity



physical infrastructure limitations must compel search for innovative ways to address broad health issue(s)

Context ↔ Collaboration ↔ Content ↔ Commerce ↔ Co-habitation

** given low levels of insurance coverage / penetration among population, generally*

1. Stakeholders interest towards mHealth

2. Implementation Issues

3. Call to Action: Key Success Factors

1. Stakeholders interest towards mHealth

- Strong partnerships needed
- Technology can be (& already is) a strong catalyst

2. Implementation Issues

- Healthcare needs come first
- Technology issues
- Enablers

3. Call to Action: Key Success Factors

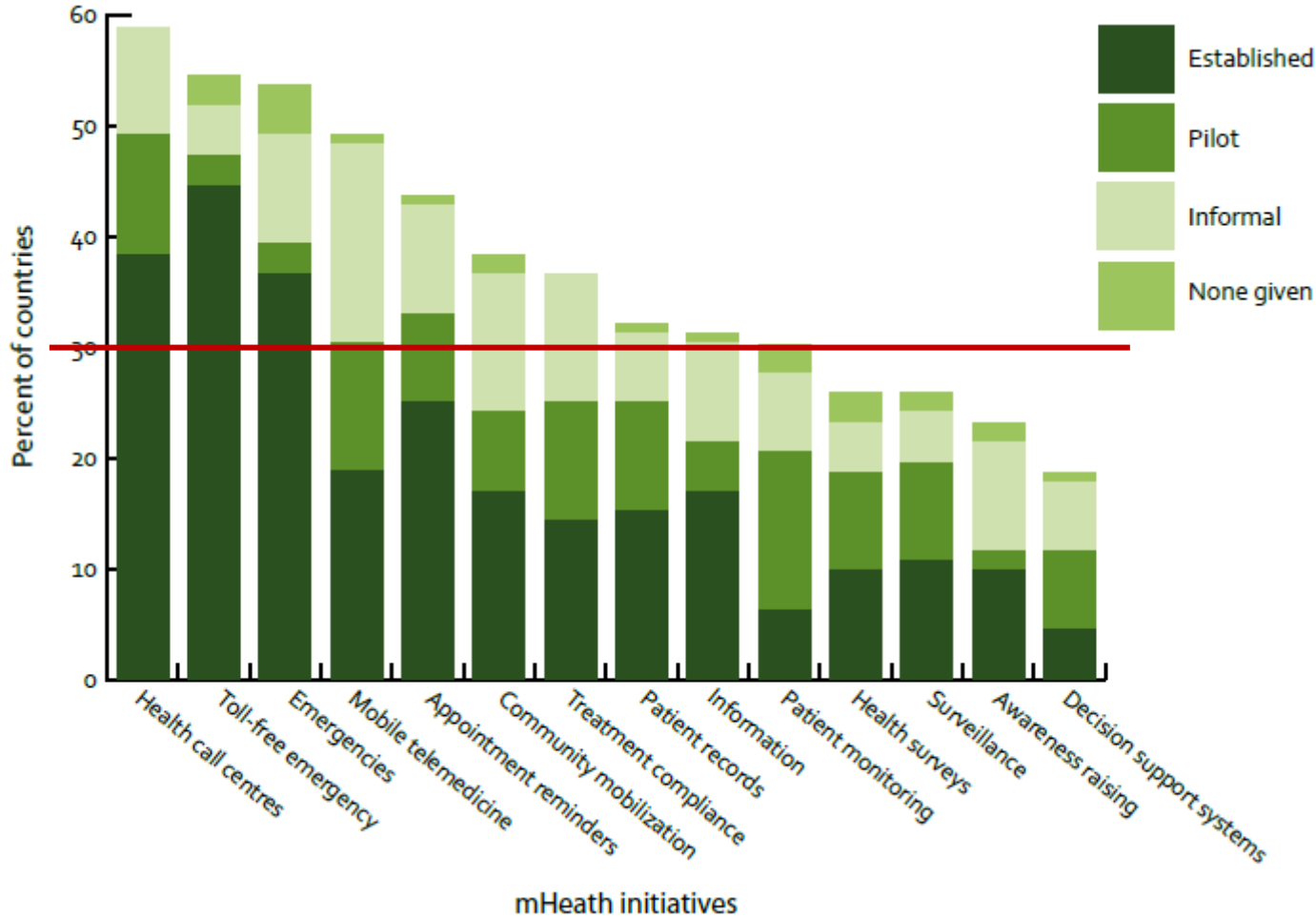
- 5Cs framework to success: Context, Collaboration, Content, Commerce & Co-habitation

Thank You



Type of mHealth Initiatives

Figure: Adoption of mHealth initiatives & phases, globally



It is no more just an experiment in developing Asian markets

