Korea's Cooperation Approach to East Africa in m/e-Health: For Now and the Future

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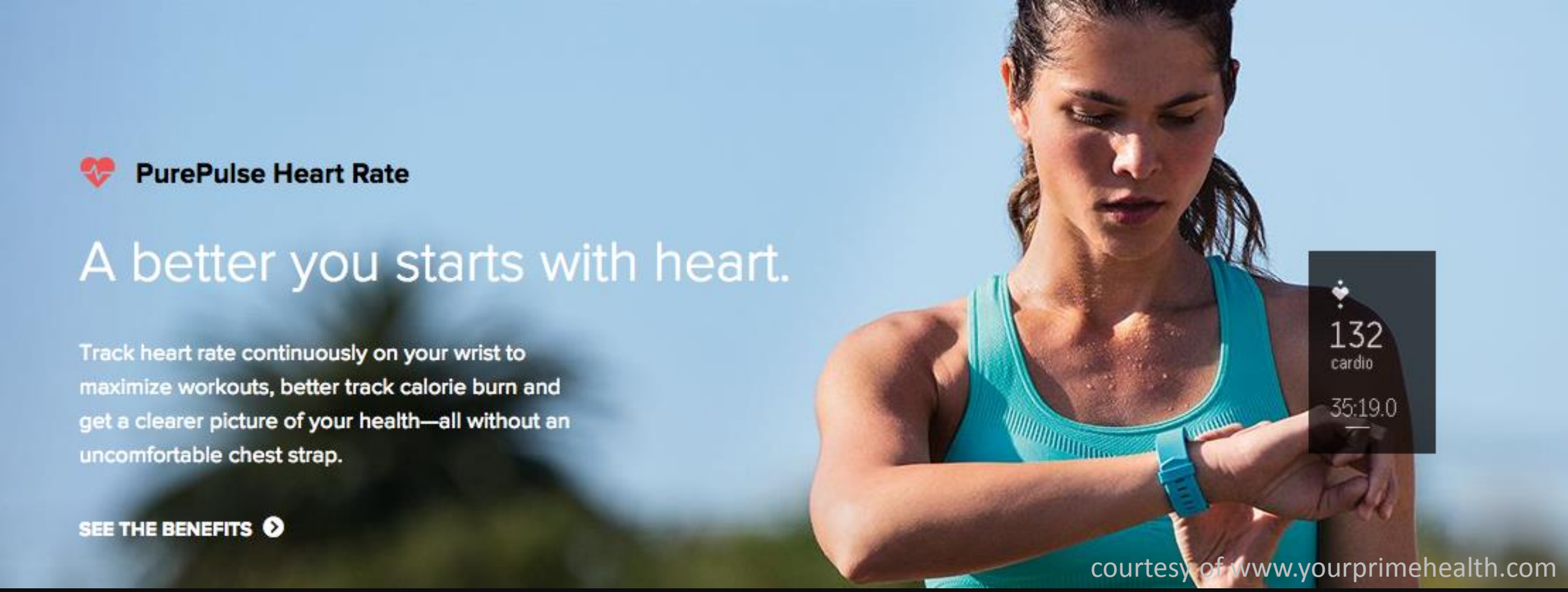
preliminary and incomplete

Korea Institute for International Economic Policy



courtesy of www.yourprimehealth.com

m/e-health?

What is m/e-health?

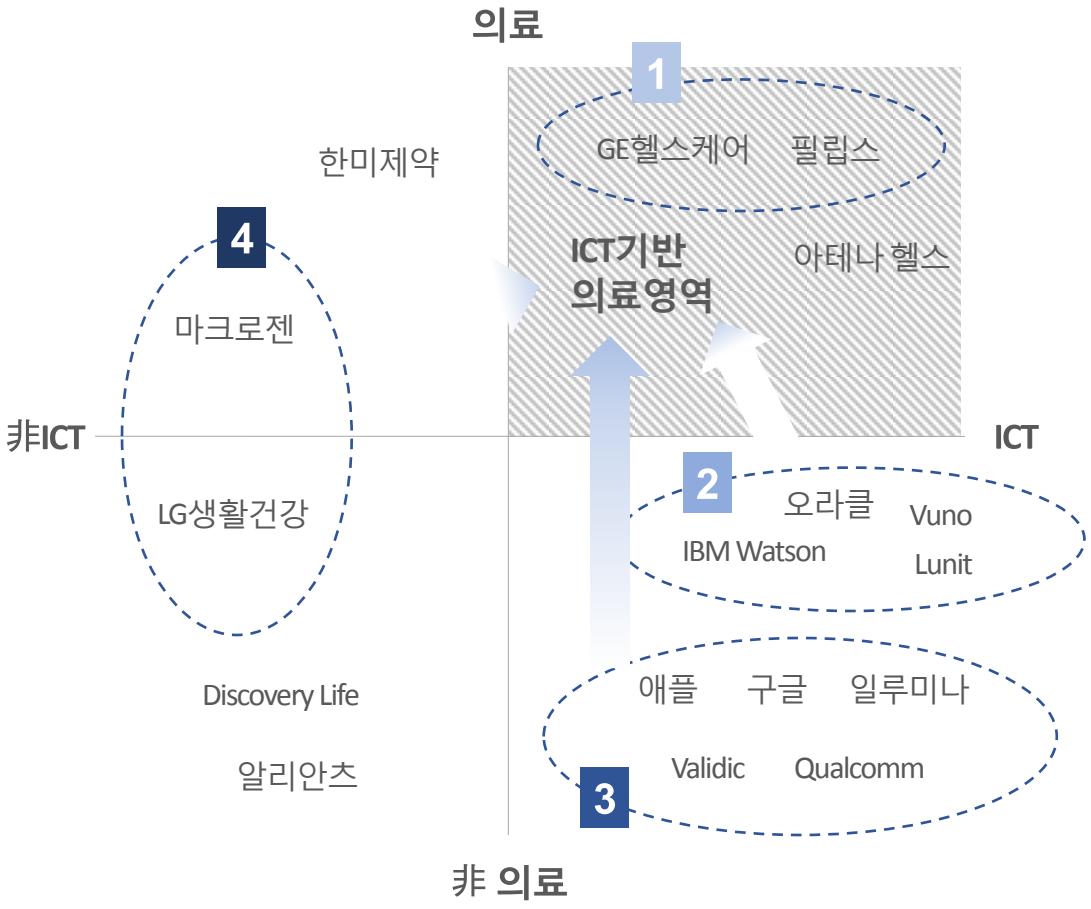
courtesy of www.emrecruits.com

m/e-health: various definitions

- e-health: the use of (ICT) for health (WHO, 2006)
- m-health: the delivery of healthcare services via mobile communication devices (FNIH, 2010)
- e-health is concerned with improving the flow of information, through electronic means, to support the delivery of health services and the management of health system (WHO)
- medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other wireless devices (WHO GOe)

- Some various terms: Smart healthcare, Digital healthcare

Dimension of m/e-health industry



1 제조업 기반 공유 플랫폼

- 전세계 의료기기들을 통합하여 클라우드 상에 공유 플랫폼 구축

2 데이터 분석 기반 지능화

- 데이터 분석 역량을 기반으로 영상분석, 의사결정지원 사업 진입

3 헬스케어 플랫폼 생태계 구축

- 의료정보/라이프로그/유전체 정보를 통합하여 이해관계자간 데이터 유통

4 이종간 산업 연계

- 이종간 산업 연계로 신규 BM 창출

courtesy of M.S.Kim, KT

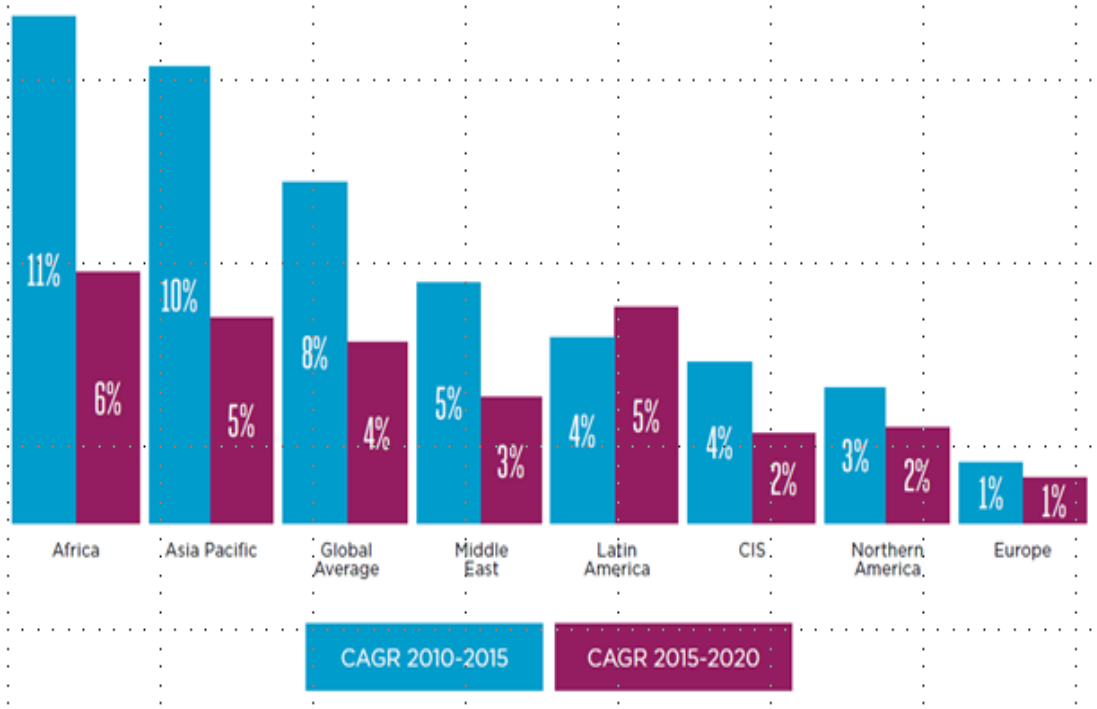
m/e-health for development

- **Accessibility**
- **Cost-effectiveness**
- **Sustainability**
- **Data/evidence-base policy**
- **Transparency**

courtesy of www.emrecruits.com

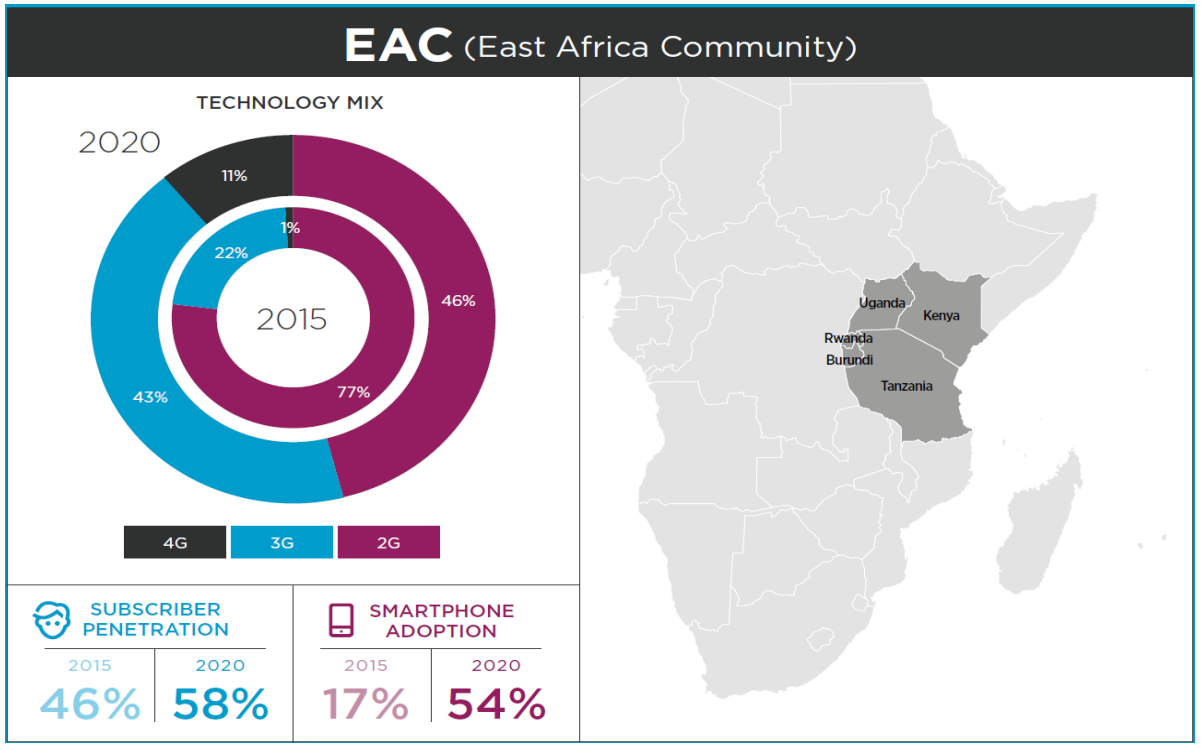
M-health potential in Africa

Unique subscriber growth by region



courtesy of GSMA Intelligence

East Africa: Mobile Tech-hub in Africa



courtesy of GSMA Intelligence

From success in mobile money

courtesy of www.vodafone.com

Kenya's health profile

Millennium Development Goals (MDGs)

Indicators	Statistics	
	Baseline*	Latest**
Under-five mortality rate (per 1000 live births)	99	71
Maternal mortality ratio (per 100 000 live births)	490	400
Deaths due to HIV/AIDS (per 100 000 population)	383.9	126.3
Deaths due to malaria (per 100 000 population)	36.9	27.7
Deaths due to tuberculosis among HIV-negative people (per 100 000 population)	18	20

*1990 for under-five mortality and maternal mortality; 2000 for other indicators
**2012 for deaths due to HIV/AIDS and malaria ; 2013 for other indicators

courtesy of WHO (2015)

Kenya's m/e-health Plan

- **Kenya VISION 2030**
- **Kenya Health Sector Strategic and Investment Plan 2014-2018**
- **Kenya e-health Strategy 2011-2017**

- **Strategic areas of Intervention: Five Pillars**
  - Telemedicine
  - Health Information Systems
  - Information for Citizens
  - M-Health
  - E- Learning

Rwanda's Health Profile

Millennium Development Goals (MDGs)

Indicators	Statistics Baseline*	Statistics Latest**
Under-five mortality rate (per 1000 live births)	152	52
Maternal mortality ratio (per 100 000 live births)	1400	320
Deaths due to HIV/AIDS (per 100 000 population)	269.8	54.6
Deaths due to malaria (per 100 000 population)	78.6	32.6
Deaths due to tuberculosis among HIV-negative people (per 100 000 population)	7.7	6.9

*1990 for under-five mortality and maternal mortality; 2000 for other indicators
**2012 for deaths due to HIV/AIDS and malaria ; 2013 for other indicators

courtesy of WHO (2015)

Rwanda's m/e-health Plan

- **SMART RWANDA Master Plan**
- **Rwanda e-Health Strategic Plan 2015-2020**

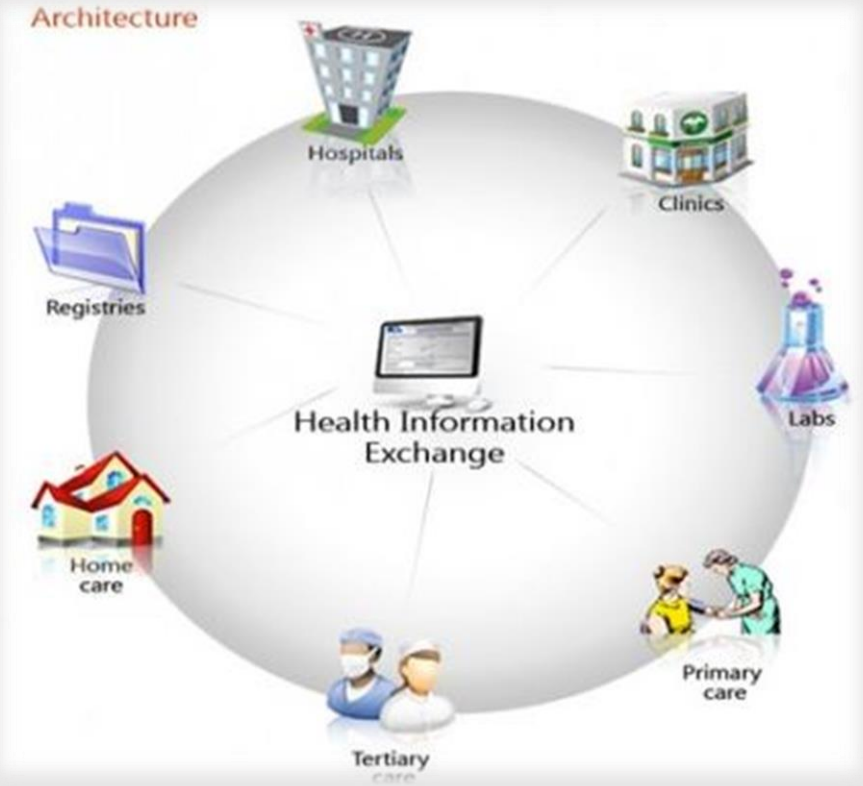
- **Key Component of e-health in National Strategy**
  - Community Based IS
  - Primary Care IS
  - Hospital Management IS
  - Diagnostic Services IS
  - Telemedicine and e-learning IS
  - Public Health Reporting IS
  - Health Care Insurance IS
  - Supply Chain IS
  - Human Resource IS

oRn(olleh Rwanda networks)/KTRN in Rwanda

- 4G and beyond data wholesale for 25 years exclusively
- Existing MNO as retailers
- 95% coverage in terms of population
- PPP with Rwandan government and KT

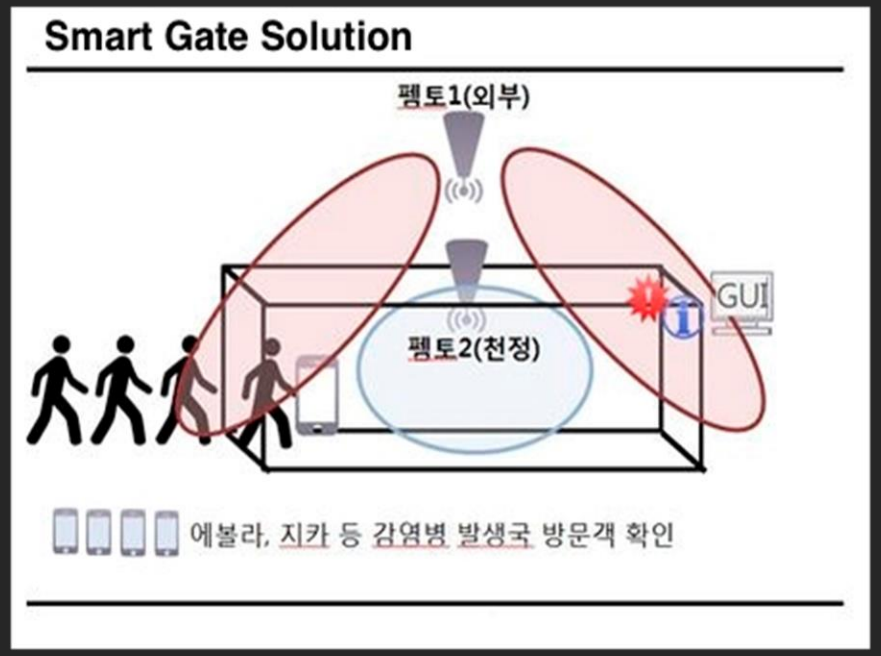
Potential Cooperation Projects in East Africa

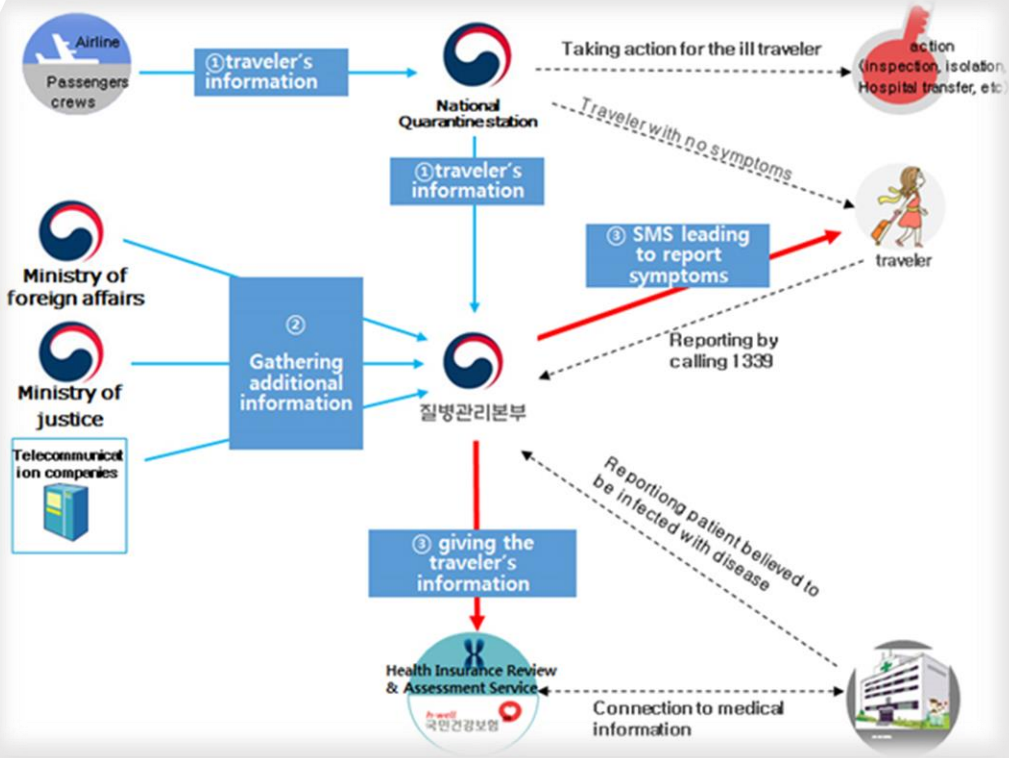
- **Healthcare Information and Management System(HIMS)**



Potential Cooperation Projects in East Africa

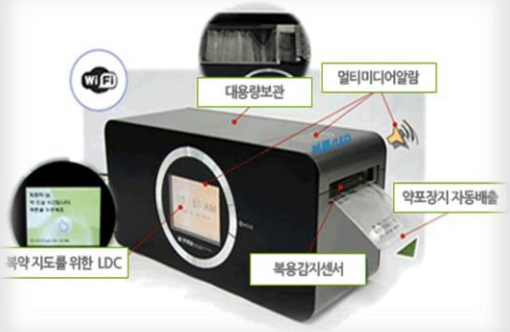
- **Smart Quarantine Information System**





Potential Cooperation Projects in East Africa

- **Providing devices**
  - ✓**Portable ultrasound device**
  - ✓**Mobile diagnostic kit**
  - ✓**Smart Pill Box**



Policy Implications

- Suitability
  - partners’ needs and capability, partner gov’t strategy and master plan
- Sustainability
  - eco-system, human resource, intervention and scale-up plan
- Partnership
  - G2G, B2G, with multilateral development partners
  - comprehensive and multidimensional cooperation

Appendix

UNICEF in m/e-health

- Areas of m/e-health
  - Education and Awareness
  - Remote Data Collection
  - Remote Monitoring
  - Communication and Training for Healthcare Workers
  - Disease and Epidemic Outbreak Tracking
  - Diagnostic and Treatment Support

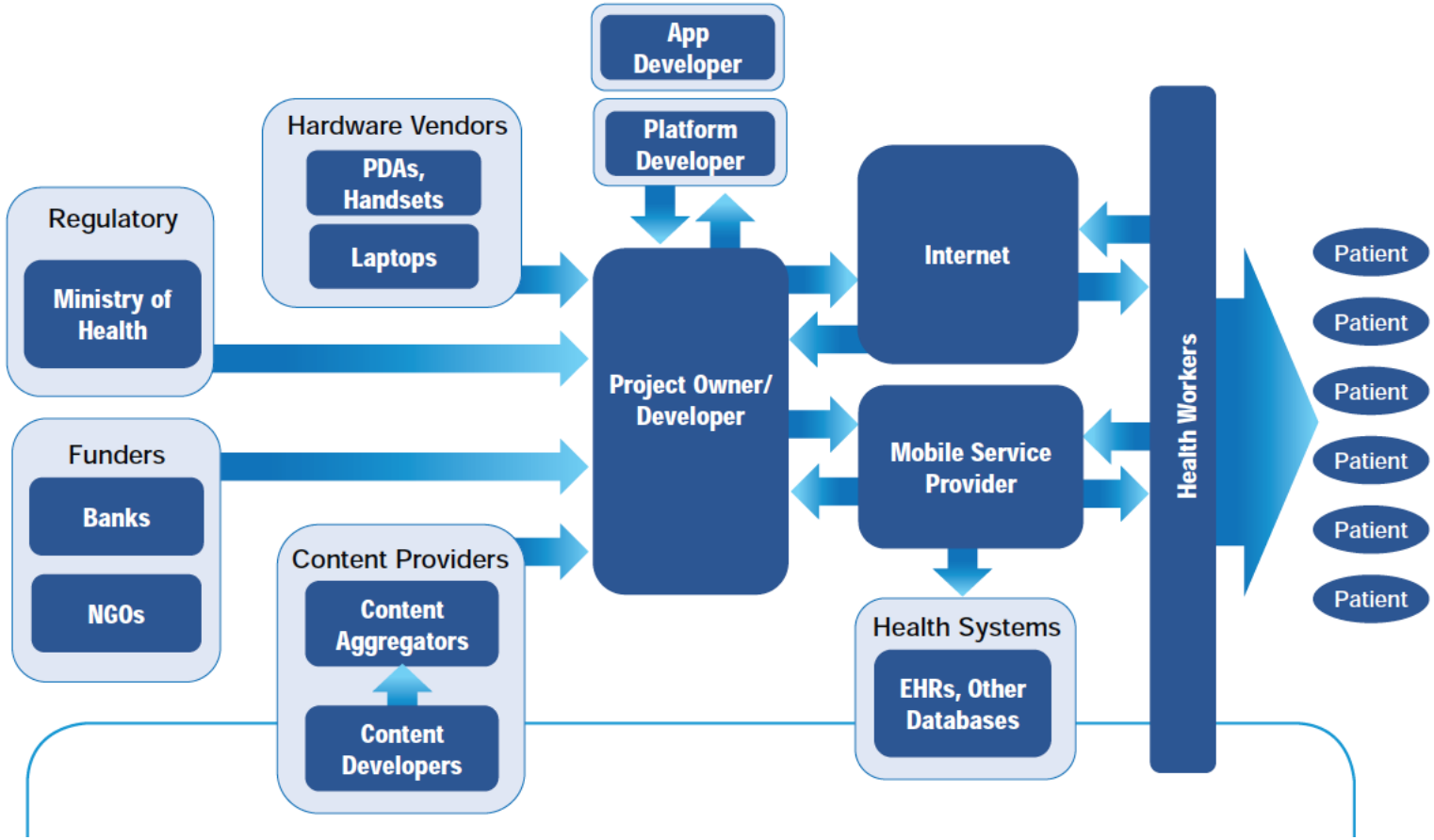
- Rapid-SMS Project for real-time reporting and referral
- Country HIS Strengthening Model – Data Services Layer

USAID in m/e-health

- Area of m/e-Health
  - BCC(Behavior Change Communication)
  - Data Collection
  - Finance
  - Logistics
  - Service Delivery

- Supporting MHIS projects for data quality
- Establishing Knowledge Management platform
- Developing eLearning course content

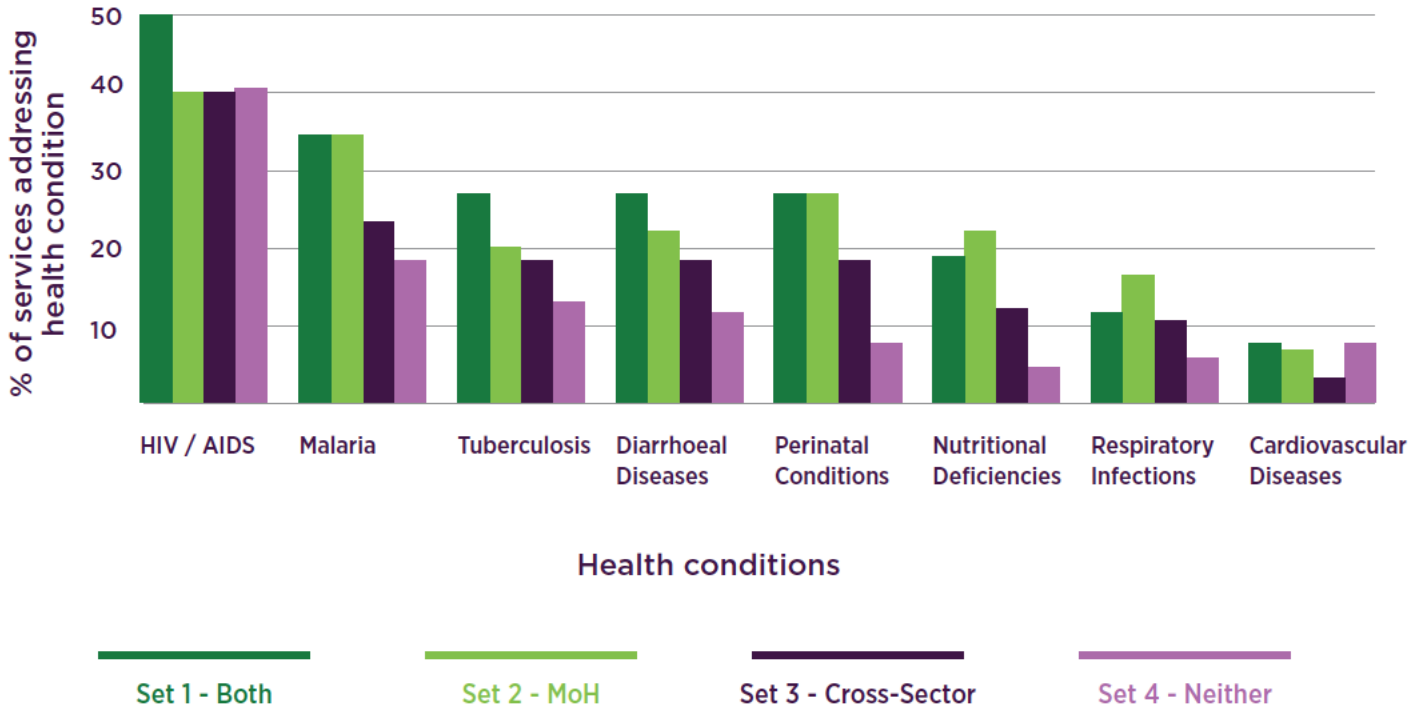
Value-Chain Model for M-health



courtesy of UNF (2009)

Partnership matters

Figure 1: Health conditions addressed by mHealth services with different partnership networks



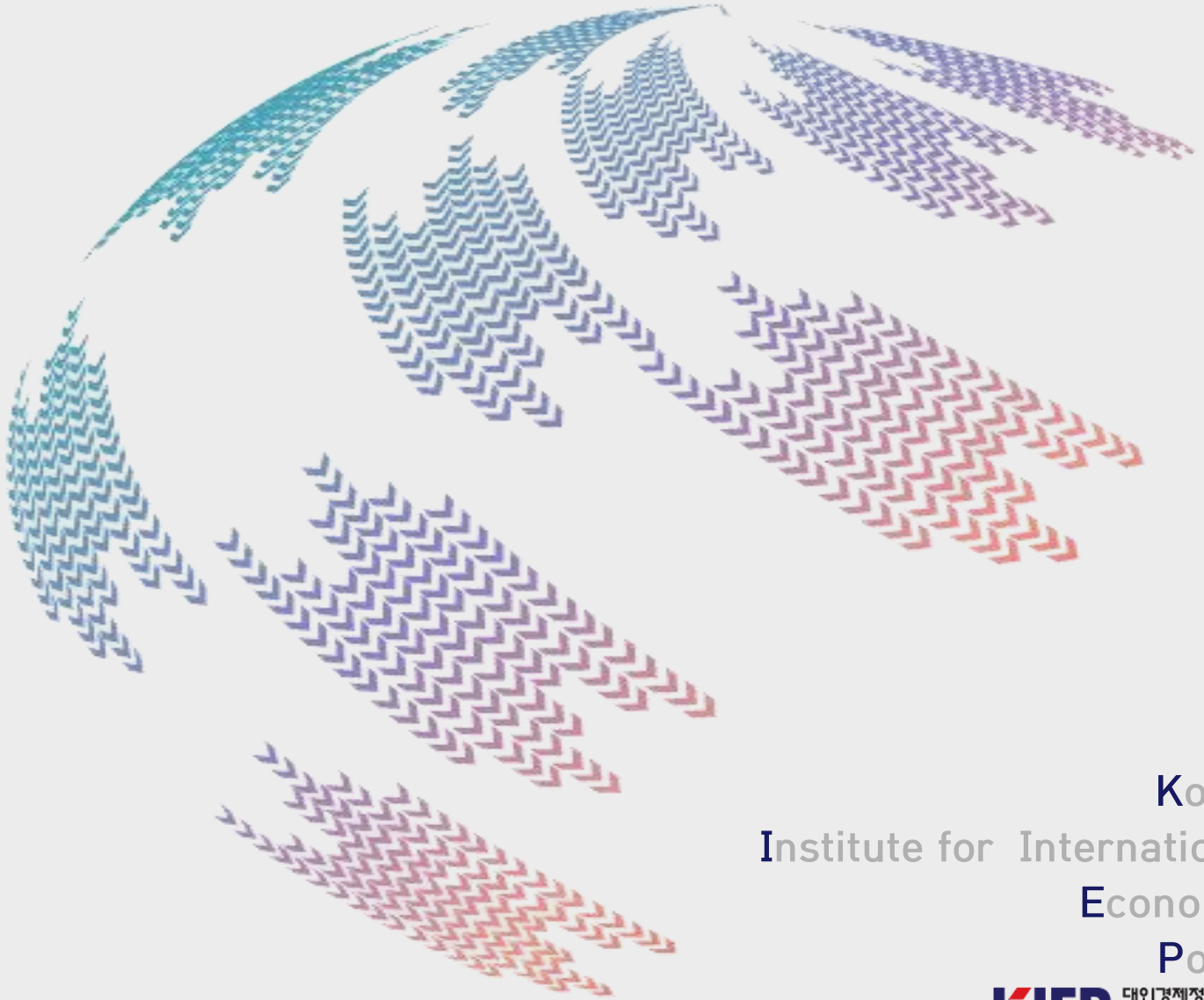
courtesy of GSMA (2015)

Comprehensive Approach in Cooperation

- m/e-health components
  - infrastructure
  - technology and tools
  - education and training
  - policies and standards
  - evaluation
  - leadership and commitment

courtesy of WHO(2015), "Connecting for Health : Global Vision, Local insight"

Thank You



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