

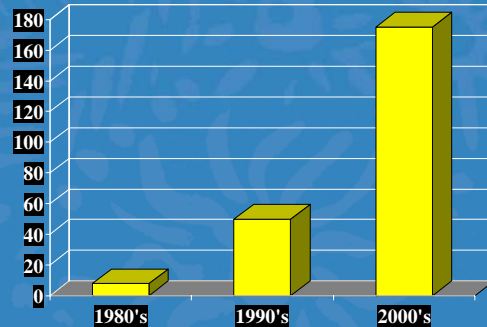
## Mobile Technologies for HIV Prevention in South Africa



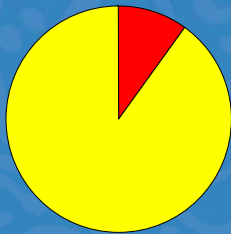
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NIH Dissemination & Implementation Conference, March 15, 2010

## HIV Evidence-Based Programs (EBP) have increased over time.



While hundreds of EPB have been documented, program utilization is low.



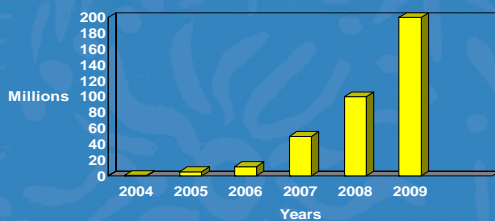
EBP take 15-20 years to design; 30 years to broadly diffuse?



Efficacy > Effectiveness > Diffusion



In contrast, Facebook went from 0 - 200,000,000 users in 5 years



Mobile technologies may allow us to break out of our current models of diffusing EBP.



**Mobile Personal Sensing can broadly & quickly diffuse innovations.**



**MPS creates the Examined Life.**

- Unobtrusively & continuously recorded
- Supplemented by prompted self-perceptions
- Linked in context &
- Integrating biological, emotional, social, & geographic data.



**MPS integrates the person's behavior record, with web-based information, & biological monitoring.**

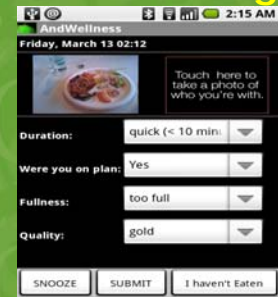


**AndWellness: health behavior change through self monitoring**

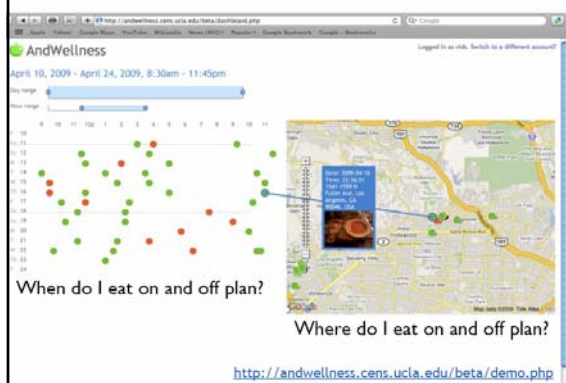
real time  
*(always on)*

real place  
*(always carried)*

real context  
*(historical, environmental, spatial, social)*



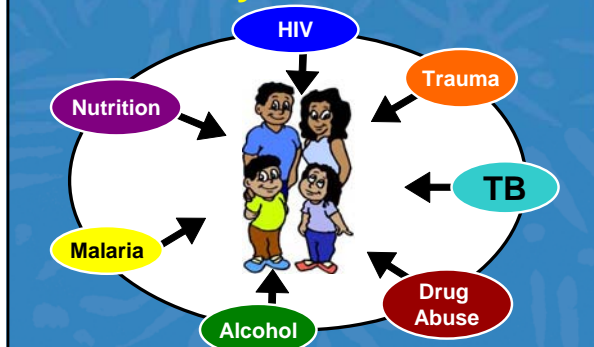
**Web services provide historical, environmental context**



**Standardized Functions are common across all HIV EBP.**

- Frame
- Apply health information
- Monitor - Surveillance
- Shape
- Support

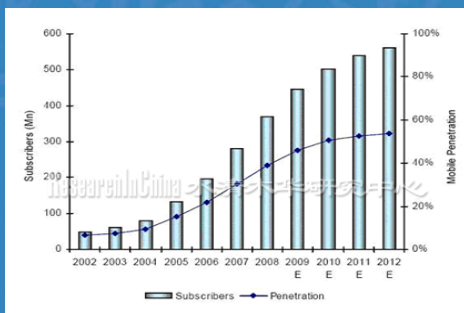
The processes are same for many diseases.



Health Care Delivery, Research on HIV, & Consumer Self-Management share standardized functions.



Penetration of Mobile Phones in Africa is higher than the US



Jumping over the era of wire, MPS has improved the Efficiency, Quality, & Ease of Data collection.



Mobile personal sensing is used for

Assessment,  
Intervention  
Delivery,  
Support,  
System  
Integrity



sors in Kwa Zulu Natal  
or Pregnant HIV+ Mothers  
r local communities.



Some applications allow tracking

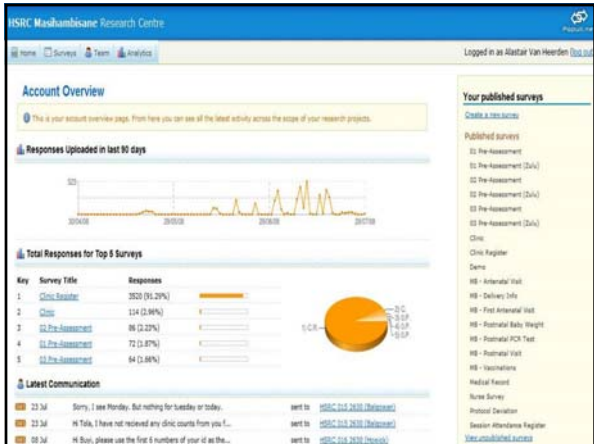


Rapid, point-of-care diagnostics are revolutionizing surveillance & disease monitoring.



Mentor Mothers visit every household, clicks her phone on entry, indicates content, & gives feedback at end.

or Mothers build social capital, provide tion & support to families in home visits monitored in real time.



Mentor Mothers in clinics send text messages, record & rate session content for pregnant, HIV+ mothers.



**Mobile phones allow Diabetes Buddies to text social support messages to peers.**



**MPS helps mothers obtain information to secure a Child Grant.**



**Potential exists to use MPS for identifying community pollution.**



**New technologies create shared platforms, not always OPEN.**



**Each research team, country, & disease specialty reinvents their own MPS program.**



"This the first time you guys ever installed an above-ground pool?"



**Open platforms create simpler, cheaper, & good enough solutions that will be optimized over time.**



**Standardized, open platforms allow substantial tailoring.**



**Open-source platforms are needed to realize the public health potential of technology.**

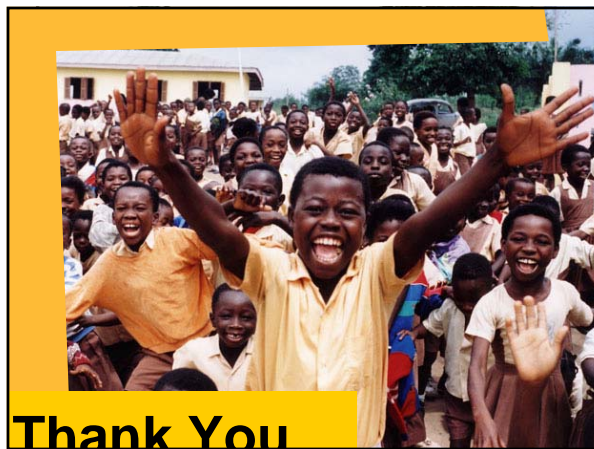


**Time is of the Essence**

**when investing to keep an open-source Platform.**



**Researchers & providers are typically 10 years late.**



**Thank You**



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