C-19 Smart Phone Apps: Developing Countries

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Do no harm...
Mobile Health Net Apps & Covid-19

1. Symptom reporting/Health Advice
2. Test&Tracing
3. Immunity Passporting
4. Hotspot risk maps
5. Detecting gatherings
6. Many others
Challenges

A. Coverage highly variable
B. Phone sharing culture
C. Feature phone far more common than smart phones
D. Data contract costs
E. Language/literacy support
F. Lots more...
1. Symptom reporting/advice

- Can work via SMS
- Still needs multi-lingual support
- is potentially very useful in mapping outbreaks
- e.g. [https://covid.joinzoe.com/](https://covid.joinzoe.com/)
2. test&contact tracing

- tracing is useless without testing.
- testing is very low in developing region
- £3 per test at moment is too costly
- plus capital cost of kit
- contact tracing app also fairly low utility if no coverage or phones shared.
- Provider-centric (cell tower) tracker Bad Idea
- SMS for manual contact trace notify ok.
Forget it.

No vaccine. Having had C-19 possibly grants < 3 months immunity.

Post immunity, might even become infectious even if somewhat immune.

Not like Yellow Fever vaccine or surviving smallpox.
4. Hotspot risk maps

- Very useful -
- potentially same tech as used to distribute market price for farm produce too (can be SMS)
- allows evens (sports/music/market) to proceed if (mostly) safe...
- and attendees to decide to go or not.
5. Detecting Gatherings

- Cell tower/provider aggregate data:
  - can use to map gatherings & to model mobility
  - connect with population data => risk maps
- Note may be better than google/apple mobility service data for developing region
6. Other apps will emerge

- Consider constraints/costs/privacy
- Also misappropriation/malware etc
- But also synergies (e.g. with m-pesa)