Technology in combating the epidemiological transition

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S C T I M S T

Achutha Menon Centre for Health Science Studies

- Division of SCTIMST
- First multidisciplinary school of public health to offer the MPH degree in India (1997)
- Has trained over 150 graduates
- They are working in international, national, state, and non-governmental agencies
- Come from medical, dental, veterinary, nursing, and social science backgrounds

Strengths of the Centre

- Multidisciplinary faculty- medical, management, anthropology, economics, biostatistics, women's studies, environment
- Strong research input: offers Ph D in Public Health
- Many ongoing research projects with funding from international and national agencies
- Consultancy to national and state governments

Core areas of interest

- Demographic transition and chronic disease epidemiology
- Health services research
- Equity in health
- Technology in Public Health
- Gender and health
- Ethics in health

What we perceive as the problem

- Most developing countries, including India, are in the throes of the demographic and epidemiologic transitions
- Chronic, non-communicable diseases form an increasing part of the disease burden in these countries
- Much greater demand on resources for diagnostic, monitoring, and therapeutic interventions
- Because of longer life spans, great increase in the total man years of care demanded
- All these add up to unaffordable cost of health care

What we see as the role of technology

- We need ‘equity-enhancing’ and not ‘equity-denying’ technologies
- Unfortunately, most technologies being developed are of the second variety
- Need for cost-effective, mass technologies to diagnose, monitor, and treat these diseases
- Need to think out of the box for meeting this challenge
- Making technologies acceptable is a great social challenge

An example:

- ‘Health Action by People’, an NGO, has trained over 150 high school educated girls to monitor blood pressure and check the blood sugar through glucose strips
- They are all equipped with a two-wheeler and a mobile phone, with links to trained doctors
- They screen for new cases, as well as monitor established cases of diabetes and high blood pressure

Spin offs from the program

- This is also part of a project by ‘Kudumbashree’ the poverty eradication mission of the government of Kerala
- These girls are self employed, and by charging the clients a small amount, they are able to earn a steady income
- Many clients are happy that they don’t have to go to health facilities and wait for monitoring their blood sugar and blood pressure

How does it augment the system?

- This does not clash with the establishment, as the health workers do not replace the routine laboratory check up: rather, they encourage clients to cross check with established labs
- Treating physicians also welcome the initiative since the identified cases are referred to them

What we see in the future

- Developing more technologies deliverable at the bedside by minimally trained health workers will result in increasing the range of services that can be offered by the these workers
- Some of these in the pipeline are: estimation of glycosylated hemoglobin (HbAC) for monitoring diabetes, strips to monitor cholesterol etc

What we can offer collaborators

- Expertise in epidemiological study design, data analysis, and social science perspectives
- Large field area to test out new ideas
- Links to several health NGOs for propagation of newly developed technologies