Anjali Sastry
Fall 2013

15.232 Business Model Innovation: Global Health in Frontier Markets

Class 4

Business Thinking, Innovation, and Scale: Avahan

Today's plan

- Quick Note: Mini case project materials on Stellar today
- Avahan case
  - NB: Qs for Secretary Rao? Let us know and we'll ask her
  - context
  - timeline: startup; 2005; five years in; today
  - program elements, strategy, decisions
  - what next?
  - lessons
- Coming up:
  - Kim, Porter & Farmer *Lancet*; Porter *NEMJ* on Thursday
  - Class
  - Laptops for team work. Some work to be handed in during clas

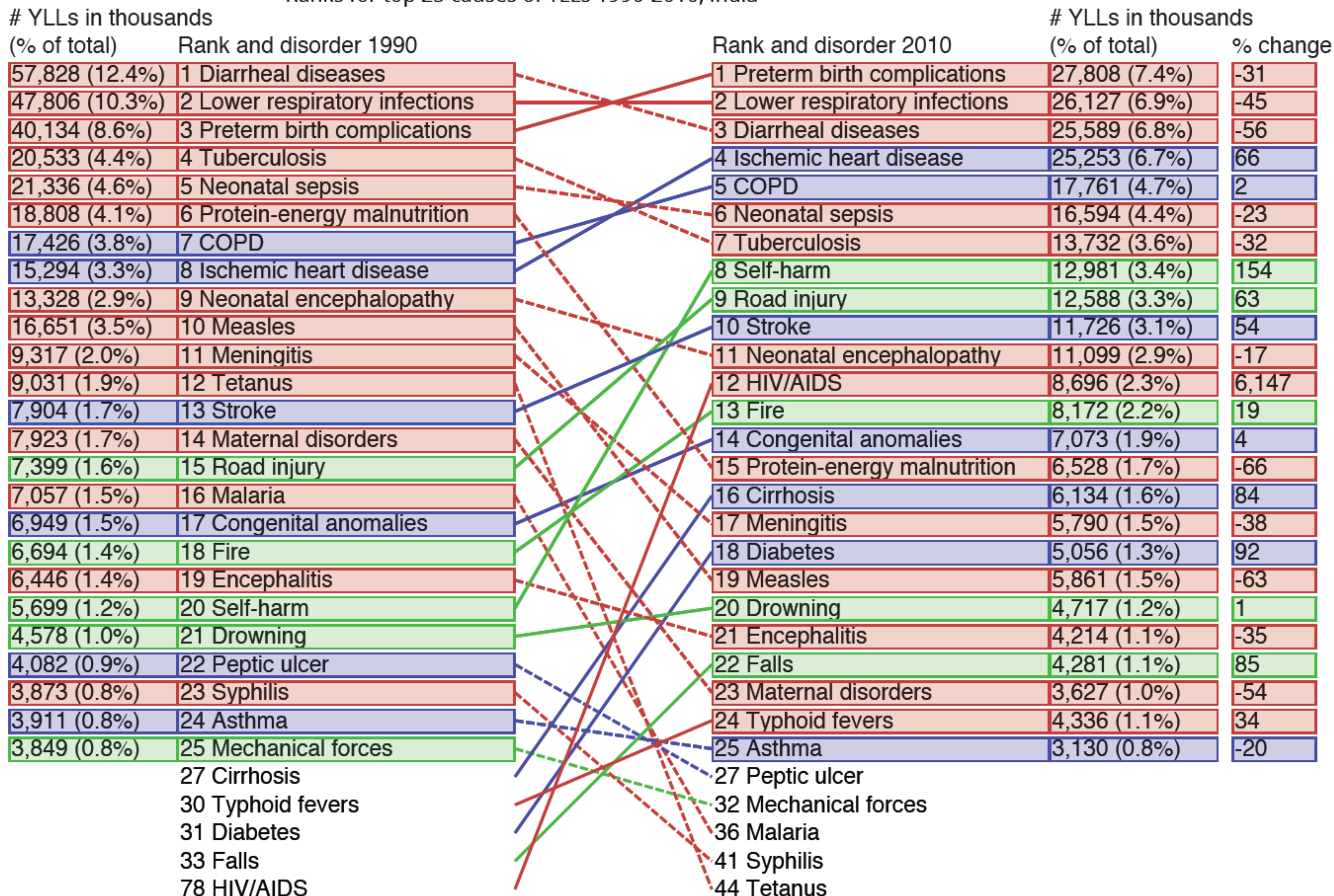
India's burden of disease 2004

(*Lancet* 2011)

Figure removed due to copyright restrictions. See p. 415, Patel, Vikram, Ph.D., et al. "Chronic Diseases and Injuries in India." *The Lancet* 377, no. 9763 (2011): 413-28.

CAUSES OF PREMATURE DEATH

Years of life lost (YLLs) quantify premature mortality by weighting younger deaths more than older deaths.



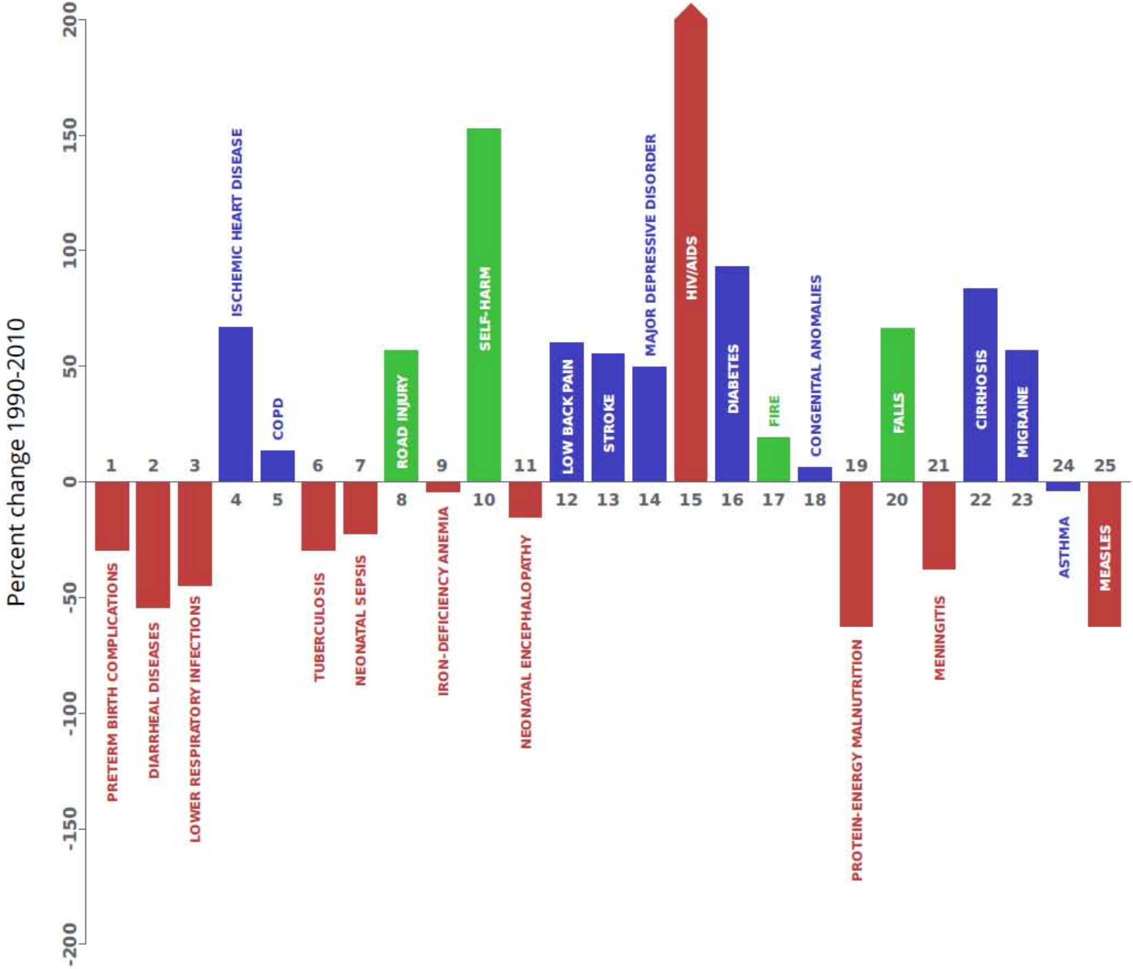
Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease (GBD) Arrow Diagram. Seattle, WA: IHME, 2013. Available at http://www.healthmetricsandevaluation.org/gbd/visualizations/gbd-arrow-diagram. (Accessed January 31, 2014.) Used with permission.

http://www.healthmetricsandevaluation.org/sites/default/files/country-profiles/GBD%20Country%20Report%20-%20India.pdf

DISABILITY-ADJUSTED LIFE YEARS (DALYs)

Disability-adjusted life years (DALYs) quantify both premature mortality (YLLs) and disability (YLDs) within a population. In India, the top three causes of DALYs in 2010 were preterm birth complications, diarrheal diseases, and lower respiratory infections. Two causes that appeared in the 10 leading causes of DALYs in 2010 and not 1990 were road injury and self-harm.

The top 25 causes of DALYs are ranked from left to right in order of the number of DALYs they contributed in 2010. Bars going up show the percent by which DALYs have increased since 1990. Bars going down show the percent by which DALYs have decreased. Globally, non-communicable diseases and injuries are generally on the rise, while communicable, maternal, neonatal, and nutritional causes of DALYs are generally on the decline.



Communicable, maternal, neonatal, and nutritional

Non-communicable

Injuries

Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease (GBD) Insight. Seattle, WA: IHME, 2013. Available at http://www.healthmetricsandevaluation.org/gbd/visualizations/gbd-insight. Used with permission.

Table removed due to copyright restrictions. See p. 418, Patel, Vikram, Ph.D., et al. "Chronic Diseases and Injuries in India." *The Lancet* 377, no. 9763 (2011): 413-28.

India’s investment in healthcare

At 0·94% of GDP, public spending on health is among the lowest in the world

A recent call for India to address **major shortcomings** highlights:

- Low per person spending that results in very high private out-of-pocket expenditures on health
- Large inefficiencies in public and private sectors that reduce efficiency and effectiveness of health expenditures
- Insufficiency of services to address health needs
- Practically no financial protection for most Indian people against medical expenditures

Source: **Lancet** 2011; 377: 668–79

Health expenditures in India and selected countries during 2005

Data from WHO PPP=purchasing power parity.

Sources of funds for health care in India during 2004–05

Figures 1 and 2 removed due to copyright restrictions. See p. 670, "Financing Health Care For All: Challenges and Opportunities." *The Lancet* 377, no. 9763 (2011): 668-79.

Lancet 2011; 377: 668–79

Who pays for healthcare in India?

Private expenditures account for 78% of total health spending in the country

In 2004, 28% of ailments in rural areas went untreated because of financial reasons—up from 15% 8 years earlier

In urban areas, 20% of ailments were untreated for financial reasons, a doubling over 8 years

47% of hospital admissions in rural India and 31% in urban India were financed by loans and the sale of assets

Most data from 2004-2005. Source: **Lancet** 2011; 377: 668–79

HIV/AIDS

- what do we need to take into account to understand what's needed to address the disease? Let's look at some of the basic medical, epidemiological, and other facts.
- How do we know what the exact nature of the epidemic is? (Measurement challenges)

Avahan

Ashok Alexander on applying business thinking to HIV/AIDS prevention

http://www.youtube.com/watch?v=4IijldFwV4o

- from McKinsey to public health: where's the common ground? 5:25-8:08
- if more time: start here, go to 12:27 (total 8 minutes): includes question setup and three-part discussion on beneficiary, govt, and NGO "common ground" with Avahan's business approach: http://www.youtube.com/watch?feature=player_detailpage&v=4IijldFwV4o#t=253

Avahan's design for organizing and managing for scale

Figure 4: Organizing and Managing for Scale removed due to copyright restrictions. See p. 10, "Avahan Common Minimum Program for HIVPrevention in India." New Delhi: Bill & Melinda Gates Foundation, 2010.

Maharashtra SLP Pathfinder/Mukta uses this "Peer Educator Flipbook" as a data collection tool for peer educators, as well as a prompt for the topics peer educators should remember to cover in their behavior change communications with community members *(Upper left)*.

Many SLPs developed similar microplanning tools for their programs. *(Bottom left)* These cards were developed by the University of Manitoba and KHPT, and are designed to help peer educators working with highly migratory FSW. *(Bottom right)* Peer educators aggregate the data from their cards into charts to track their community members' behavior change over time.

PEER EDUCATOR FLIPBOOK - PATHFINDER INTERNATIONAL MUKTA PROJECT

Name of hotspot and site where the sex worker has been registered.

Pre-registration rapport building sessions - 1, 2 or 3.

STI/HIV/AIDS prevention communication.

Communication on other health issues.

Condom demonstration.

Condom re-demonstration by community member.

Referrals to MUKTA clinic for STI services/monthly health check up.

Distribution of free condoms.

Communication on social entitlements.

Communication on collectivization.

First and last name of sex worker (used by literate peer educators/PEs).

The unique color code helps the PE to code the identity of sex workers without having to record their names. The ID (a 9-digit alpha numerical code) can also be recorded.

Social marketing of condoms.

Referral for health services other than STIs.

Distribution of IEC material.

Communication on self help groups.

The above palm-sized flip book is used by Peer Educators to record daily one-to-one communication with their peers. By simply recording the unique color code and marking a tick in the blank space against communication topics, the PE can track Behavior Change Communication (BCC) done with any given community member.

For further information, please contact:
Pathfinder International / Mukta Project
Pune, India - +91-20-25862296 / 97
www.pathfind.org

Courtesy of Harvard Global Health Delivery Cases. Used with permission.

Ashok Alexander on standardization

http://www.youtube.com/watch?v=4IijldFwV4o

- do you have to standardize in order to scale? 32:35-34:22

INDIA ANC Prevalence Data 2003 and 2007

Maps removed due to copyright restrictions. See Figures 4 and 5, Jha, Prabhat, et al. "HIV Mortality and Infection in India: Estimates From Nationally Representative Mortality Survey of 1.1 Million Homes." *British Medical Journal* 340 (2010).

Source: NACO's Sentinel Surveillance data: ANC sites (2003 and 2007)

Screenshot removed due to copyright restrictions. See "Avahan's Contribution to HIB Control Significant: Study." October 11, 2011. ***The Hindu*** (blog).

Screenshot removed due to copyright restrictions. See "Bill & Melinda Gates Foundation's Avahan Initiative Announces $47 Million in Grants to Combat HIV/AIDS in India."

http://www.gatesfoundation.org/Media-Center/Press-Releases/2009/07/Avahan-AIDS-Initiative-Commitment-Increased-to-$338-Million

Screenshot removed due to copyright restrictions. See *Impatient Optimists* (blog), Bill & Melinda Gates Foundation.

More from Avahan

- http://docs.gatesfoundation.org/avahan/documents/avahan_offthebeatentrack.pdf
- http://docs.gatesfoundation.org/avahan/Pages/hiv-india-publications.aspx

More on Avahan (this list is in development)

- teaching case on an Avahan program in Maharashtra, much more depth on how they did things in the field from the perspective of one program http://www.thecasecentre.org/educators/products/view?id=108653
- Avahan-India AIDS Initiative Case Study – AIDSTAR narrative case, by Bill Rau, 2011. Page also links to useful further information via tabs and left nav bar.
- really useful World Bank paper : Kusek, Jody Zall, Wilson, David, Thomas, Austin. 2009. *Could India's business skills improve lagging public health outcomes?*. HIV/AIDS - getting results. Washington D.C. - The Worldbank. http://documents.worldbank.org/curated/en/2009/03/11444373/indias-business-skills-improve-lagging-public-health-outcomes
- http://content.healthaffairs.org/content/32/7/1265.full?ijkey=mtznxc5iJjk62&keytype=ref&siteid=healthaff – the Health Affairs paper in the syllabus, on Avahan's transition to Government of India
- Ng M, Gakidou E, Levin-Rector A, Khera A, Murray CJL, Dandona L. Assessment of population-level effect of Avahan, an HIV-prevention initiative in India. Lancet 2011; 378: 1643-1652. Summary | Full Text | PDF(7754KB)
- response by Lagha and Moody http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2812%2960426-7/fulltext
- Boerma T, de Zoysa I. Beyond accountability: learning from large-scale evaluations. Lancet 2011; 378: 1610-1612. Full Text | PDF(441KB)
- Chandrasekaran P, Dallabetta G, Loo V, et al. Evaluation design for largescale HIV prevention programmes: the case of Avahan, the India AIDS Initiative. *AIDS* 2008; 22: S1-15. CrossRef | PubMed
- Padian NS, Holmes CB, McCoy SI, Lyerla R, Bouey PD, Goosby EP. Implementation science for the US President's Emergency Plan for AIDS Relief (PEPFAR). J Acquir Immune Defic Syndr 2011; 56: 199-203. CrossRef | PubMed
- Evaluation of HIV prevention programmes: the case of Avahan British Medical Journal February 22, 2010. In this editorial MIT grad Stefano Bertozzi, Director of HIV in the Global Health Program at the Bill and Melinda Gates Foundation, notes that while Avahan has performed excellent quality evaluation, the program's ability to demonstrate effectiveness is undermined by not having built a more robust impact evaluation into its implementation strategy. Though he deems Avahan "unsurpassed" in process indicators including coverage, quality, and tailoring of services, he believes that "had Avahan used an adaptive design that permitted early peeks at outcomes, they would have been able to tailor the programme based on trends in impact (in addition to trends in coverage and quality) further optimising the likelihood of achieving the greatest impact." (summary from GHDonline)
- Tran et al. on Avahan's use of evidence: http://www.implementationscience.com/content/8/1/44
- an entire supplement in BMC: http://www.biomedcentral.com/bmcpublichealth/supplements/11/S6 Volume 11 (suppl 6): "Learning from large scale prevention efforts: Findings from Avahan" 16 research papers plus editorial.
- http://www.popcouncil.org/projects/254_DocumentingAvahan.asp#/jQueryUITabs1-3 dozens more recent papers

More on HIV/AIDS history, context

- http://www.theguardian.com/global-development/interactive/2011/dec/01/hiv-aids-timeline-global-crisis-interactive HIV and Aids: interactive timeline of a global crisis.
  In 1981, the first reports of what is now known as Aids emerged from the US. Since then, HIV and Aids have swept the globe. *The Guardian*'s interactive timeline explores key moments, debates and discoveries
- http://www.aids.gov/pdf/30-years-timeline-list.pdf a list of timelines
- AIDS Sutra: http://docs.gatesfoundation.org/avahan/Pages/aids-sutra.aspx Dalrymple piece on Devadasis, courtesans "married" to temple gods who confronted an alarming rise in HIV/AIDS (also in the AIDS Sutra book) http://www.newyorker.com/reporting/2008/08/04/080804fa_fact_dalrymple

offslide

- So, did it succeed?
  – Incidence down
  – costs are higher, but not outrageously so. (if time, discuss direct beneficiary service cost vs. management costs)
  – in 2013, transition well underway. some good reports on quality of services that are delivered. but programs also cut.
  – many research papers and much discussion among experts
  – exporting to other countries
- What can we learn from Avahan?
- final inspiration from Ashok

Ashok Alexander on leadership

http://www.youtube.com/watch?v=4IijldFwV4o

- his view of the role of compassion 43:55 – 46:00

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