Introduction
Challenges in reaching scale
Business models
Today’s plan

• Welcome! Meet the team
• CFW
  – their business format franchise model
  – role of scale
• Intro to Global Health (in about 15 minutes....)
• Course overview
  – initial assignment
  – mini case study
• Coming up
  – Readings and case for Tuesday
  – Assignment due Thursday 12 September
  – More on you, the project, and teams on Tuesday
CFW

5 minute video
http://www.youtube.com/watch?feature=player_detailpage&v=_oKFv-LL-tU#t=109

• what challenges is CFW designed to address?
• how does CFW address these challenges?
WHAT’S CFW’S BUSINESS MODEL?
The CFW Business Format and Operations

- A standardized franchise system with training and compliance programs
- Assists franchisees to perform consistently
- Regulates all important functions in the operation of a clinic (especially quality)
- The CFW brand
- Rented storefronts
- Limited menus of authorized services and products
- Easily accessible to patients and customers
Business Format Franchise Organizations Pass the Three Point Test

From ExxonMobil, to Marriott, to Dunkin’ Donuts, franchise organizations

• Standardize the business format and operations to ensure consistent quality throughout their networks

• Scale geometrically to thousands of locations serving millions of people each year

• Achieve economies of scale so that the larger they grow the lower the cost to serve each person
Board of Directors – Executive Committee

- **Board of Directors** with combined total of over **100 years** of franchising experience

- **Jim Amos** – CEO, Tasti D-Lite, LLC; Chairman Emeritus, Mail Boxes, Etc.; Former Chairman, International Franchise Association

- **Sid Feltenstein** – Founder & Former Chairman, Sagittarius Brands; Former Chairman, International Franchise Association

- **Steve Greenbaum** – President & CEO of Post Net, a large franchise system from America with more than 200 locations in Southern Africa; Former Chairman, International Franchise Association

- **Scott Hillstrom** – Chairman, The HealthStore Foundation®; Managing Director, Premier Mounts

- **R. Eric McCarthey**—Former VP Commercial Execution Group, The Coca-Cola Company

- **Michael Seid** – Managing Director and Founder, Michael H. Seid & Associates, world’s leading franchise consulting firm whose clients include Exxon, 7-11, McDonalds, and many of the world’s top franchise companies
for more information

- contact course team for paper by Michael Seid on business format franchising for social impact
Are scale, health for the most vulnerable and business viability inherently contradictory?
what is global health?

Photo removed due to copyright restrictions.
Global health takes on health problems that cross national boundaries, traditionally focusing on those that impose the greatest burden in resource-limited settings. To address the challenges, the field now encompasses a broad range of disciplines. Proponents have argued that it should account for “cultural identities, political organizations, transnational corporations, civil society movements and academic institutions” (Frenk 2010), along with populations.

Recent reframings of global health place interdependence at the center. If the origins and effects of many of today’s biggest health problems cross national borders, then global health should be less concerned with geographical location or stage of development, and more concerned with the ways in which health issues are interconnected. This new definition of global health thus aligns with calls for multilateral collaboration and learning that flow both ways across state, sector, and socioeconomic boundaries, and for recognizing “the many contributions of both resource-rich and resource-scarce nations” (Fried et al, 10). In fact, some argue that global health is (or should be) “collaborative trans-national research and action for promoting health for all” (Beaglehole & Bonita, 10). Others note that acknowledging interrelationships requires equity to factor into solutions (Frenk, 10; Piot & Garnett, 10).

Source: Sastry 2011
How long will you live?

Life expectancy at birth 2008 estimates. CIA - The World Factbook, 2008 via Wikimedia Commons. License: CC-BY-SA. This content is excluded from our Creative Commons license. For more information, see http://ocw.mit.edu/help/faq-fair-use/.

Article and interactive map:
http://www.dailymail.co.uk/news/article-2240855/How-does-nation-rank-world-map-life-expectancy.html#ixzz2dy9R5IDx
What’s the response?
UN Millennium Goals

• Goal 1: Eradicate extreme hunger and poverty
• Goal 2: Achieve universal primary education
• Goal 3: Promote gender equality and empower women
• Goal 4: Reduce child mortality
• Goal 5: Improve maternal health
• Goal 6: Combat HIV/AIDS, Malaria and other diseases
• Goal 7: Ensure environmental sustainability
• Goal 8: Develop a global partnership for development

IMPLEMENTATION GAP
## Global health delivery failures

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARVs for PMTCT</td>
<td>9% coverage of women overall and 50% of women who test positive in a clinic are given ARVs for PMTCT</td>
</tr>
<tr>
<td>Reduce HIV transmission by 40%</td>
<td></td>
</tr>
<tr>
<td>ITNs for Malaria Prevention</td>
<td>Only 24% of children in endemic areas sleep under nets</td>
</tr>
<tr>
<td>Reduce infant mortality by 23%</td>
<td></td>
</tr>
</tbody>
</table>

source: Global Health Delivery Project, Harvard University

Mothers to Mothers program courtesy [USAID Kenya](https://www.usaid.gov/kenya) via Flickr. License: CC-BY.

Bed with mosquito netting courtesy [Joi Ito](https://flickr.com/photos/joi) via Flickr. License: CC-BY.
Vaccine-Preventable Deaths
Critical health interventions have historically faced slow uptake and low coverage. Gaps in coverage fall disproportionately on the poor, and amplify inequity.

We need to understand the root causes of these uptake patterns, to avoid the same outcome with future interventions (e.g., pneumococcal vaccine, rotavirus vaccine).

2008 data, courtesy of the Bill & Melinda Gates Foundation. Used with permission.

http://csis.org/event/rajeev-venkayya-global-health-delivery-systems
BURDEN OF DISEASE
Quantifying the Burden of Disease from mortality and morbidity

Disability-Adjusted Life Year (DALY)

Definition

• One DALY can be thought of as one lost year of "healthy" life. The sum of these DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability.

• DALYs for a disease or health condition are calculated as the sum of the Years of Life Lost (YLL) due to premature mortality in the population and the Years Lost due to Disability (YLD) for incident cases of the health condition:

Calculation

\[
\text{DALY} = \text{YLL} + \text{YLD}
\]

• The YLL basically correspond to the number of deaths multiplied by the standard life expectancy at the age at which death occurs. The basic formula for YLL (without yet including other social preferences discussed below), is the following for a given cause, age and sex:

\[
\text{YLL} = \text{N} \times \text{L}
\]

where:

\( \text{N} \) = number of deaths

\( \text{L} \) = standard life expectancy at age of death in years

• Because YLL measure the incident stream of lost years of life due to deaths, an incidence perspective is also taken for the calculation of YLD. To estimate YLD for a particular cause in a particular time period, the number of incident cases in that period is multiplied by the average duration of the disease and a weight factor that reflects the severity of the disease on a scale from 0 (perfect health) to 1 (dead). The basic formula for YLD is the following (again, without applying social preferences):

\[
\text{YLD} = \text{I} \times \text{DW} \times \text{L}
\]

where:

\( \text{I} \) = number of incident cases

\( \text{DW} \) = disability weight

\( \text{L} \) = average duration of the case until remission or death (years)

http://www.who.int/healthinfo/global_burden_disease/en/
Screenshot removed due to copyright restrictions. See
once you know DALYs, you can draw on it in many different ways
Years of Life Lost Due to Premature Mortality by Broad Cause and Country-income Group (2004)

- Low income:
  - Communicable diseases, maternal and perinatal conditions and nutritional deficiencies: 69%
  - Noncommunicable conditions: 21%
  - Injuries: 10%

- Middle income:
  - Communicable diseases, maternal and perinatal conditions and nutritional deficiencies: 50%
  - Noncommunicable conditions: 28%
  - Injuries: 22%

- High income:
  - Communicable diseases, maternal and perinatal conditions and nutritional deficiencies: 77%
  - Noncommunicable conditions: 15%
  - Injuries: 8%

Years of life (YLL) per 1000 population


Age distribution of burden of disease by country income group, 2004

Image by MIT OpenCourseWare.


Urban-rural differences, 2000-2008

Births attended by skilled health personnel vs Measles immunization coverage among 1-year olds in low-income and middle-income countries—2000-2008.

Image by MIT OpenCourseWare.

By country income levels

Proportions of deaths covered by vital registration (by GBD-2010 regions)


Courtesy Byass, P., et al. 2013. License CC-BY.
http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.1001477
We’ve touched on diagnosis. But what is needed to treat or prevent?
HEALTHCARE IS MISSING NEEDED INPUTS
Doctors per person

• In Massachusetts? 4.69 (nonfederal) per 1,000
• In Malawi? 0.02
Infographic removed due to copyright restrictions.
IS IT ABOUT ECONOMIC INPUTS?
Public Health Spending

Public health spending, 2004 data. © Copyright 2006 SASI Group (University of Sheffield) and Mark Newman (University of Michigan). Used with permission. For high res images, see: http://www.worldmapper.org/map_list.html.
Health Expenditure Per Capita (PPP; International $, 2010)

World map depicting health expenditure per capita removed due to copyright restrictions. Source: Kaiser Family Foundation. "Health Expenditure Per Capita (PPP; International $)."
Quick detour to look at the US
Infographic removed due to copyright restrictions.

Infographic removed due to copyright restrictions.

Infographic removed due to copyright restrictions.

Table removed due to copyright restrictions. Health Status of the United States and Rank among the 29 Other OECD Member Countries. See p. 1222, Schroeder, S.A., M.D. "We Can Do Better -- Improving the Health of the American People." *NEJM* 357 (2007): 1221-8.
2011 per capita spending on health (PPP Int $)

Low-Income Countries
• Government spending: $27
• Total spending: $68

High-Income Countries
• Government spending: $3,240
• Total spending: $5,384

http://apps.who.int/gho/data/view.main.1911?lang=en
## Comparing the US and Malawi

<table>
<thead>
<tr>
<th></th>
<th>Malawi</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>% GDP on health</td>
<td>9.1</td>
<td>15.2</td>
</tr>
<tr>
<td>Percapita hlth spend (PPP $)</td>
<td>49</td>
<td>7,164</td>
</tr>
<tr>
<td>Pvt spend as % of total</td>
<td>39.4</td>
<td>52.2</td>
</tr>
<tr>
<td>Children/woman</td>
<td>5.5</td>
<td>2.1</td>
</tr>
<tr>
<td>Gross nat’l income per capita (PPP $)</td>
<td>760</td>
<td>45,640</td>
</tr>
<tr>
<td>% population living on under PPP$1/day</td>
<td>73.9</td>
<td>-</td>
</tr>
</tbody>
</table>

DAH by channel of assistance 1990 to 2011


http://www.healthmetricsandevaluation.org/
## Top 15 NGOs in overseas health expenditure, 2005 to 2008

<table>
<thead>
<tr>
<th>Rank</th>
<th>NGO</th>
<th>Overseas health expenditure, adjusted</th>
<th>Overseas health expenditure, unadjusted</th>
<th>Overseas expenditure, unadjusted</th>
<th>Percent of revenue from private sources</th>
<th>Percent of revenue from in-kind contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Population Services International</td>
<td>1,265.14</td>
<td>1,265.21</td>
<td>1,347.93</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Food For The Poor</td>
<td>706.83</td>
<td>2,557.64</td>
<td>4,196.77</td>
<td>97</td>
<td>89</td>
</tr>
<tr>
<td>3</td>
<td>Catholic Relief Services</td>
<td>665.51</td>
<td>670.36</td>
<td>2,306.70</td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Management Sciences for Health</td>
<td>581.94</td>
<td>581.94</td>
<td>585.98</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>PATH</td>
<td>501.23</td>
<td>505.97</td>
<td>518.54</td>
<td>90</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>United Nations Foundation</td>
<td>466.08</td>
<td>497.42</td>
<td>637.84</td>
<td>91</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>World Vision</td>
<td>355.80</td>
<td>472.89</td>
<td>3,178.42</td>
<td>76</td>
<td>30</td>
</tr>
<tr>
<td>8</td>
<td>Pathfinder International</td>
<td>324.45</td>
<td>325.97</td>
<td>325.99</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Elizabeth Glaser Pediatric AIDS Foundation</td>
<td>318.02</td>
<td>319.47</td>
<td>322.54</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>MAP International</td>
<td>293.96</td>
<td>1,398.24</td>
<td>1,398.67</td>
<td>100</td>
<td>97</td>
</tr>
<tr>
<td>11</td>
<td>Brother’s Brother Foundation</td>
<td>274.88</td>
<td>1,460.07</td>
<td>2,011.33</td>
<td>100</td>
<td>99</td>
</tr>
<tr>
<td>12</td>
<td>Academy for Educational Development</td>
<td>265.03</td>
<td>267.44</td>
<td>1,060.58</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Save the Children</td>
<td>246.24</td>
<td>254.86</td>
<td>1,428.72</td>
<td>53</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>CARE</td>
<td>241.20</td>
<td>241.92</td>
<td>2,370.40</td>
<td>27</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>Project HOPE</td>
<td>229.16</td>
<td>547.28</td>
<td>595.38</td>
<td>91</td>
<td>71</td>
</tr>
</tbody>
</table>

Total DAH per all-cause DALY, 2004 to 2009

Dollars per DALY

- $0 to $3.94
- $3.94 to $8.47
- $8.47 to $17.68
- $17.68 to $29.57
- $29.57 to $3,964.10

Top 30 country recipients of DAH, 2004 to 2009, compared with top 30 countries by all-cause burden of disease, 2004
DAH for HIV-AIDS; maternal, newborn, and child health; malaria; health sector support; TB; and non-communicable disease

CAVEAT: Spending does not equal health outcomes
See gapminder!
Now go watch this!

Reducing child mortality – a moral and environmental imperative

[15 minutes run time] September 27, 2010

Many countries are making good progress towards MDG4 and it’s time to stop talking about Sub-Saharan Africa as one place.

So, it’s not all bad news—and Rosling makes stats and data compelling!

Alternate link to video: https://www.youtube.com/watch?v=EWI_1QoQ9aM
maternal death

Chance of dying in childbirth

• in Boston
  – 1 in 4,800
• In Burundi
  – 1 in 16
• in Austria
  – 1 in 21,500
• world
  – 1 in 92

A women’s lifetime risk of dying from pregnancy-related complications:
Niger: 1 in 7
Ireland: 1 in 48,000

http://www.who.int/making_pregnancy_safer/topics/maternal_mortality/en/
WHAT IS MOST NEEDED?
MORE MONEY, MORE M ED S, MORE HEALTH WORKERS, MORE DOCS

CLEVER NEW TECHNOLOGIES

NEW APPROACHES, SMARTER OPERATIONAL MODELS, BETTER DESIGN, BETTER SYSTEMS, BETTER PATIENT EXPERIENCE, MORE PREVENTION
what do we see when we get it right?

Fewer stockouts
Lower cost of care
Less loss to follow up
Better use of primary (vs. secondary, tertiary) care
Spread and scale up of what works
Innovations and inventions that deliver real value to patients
start here for WHO data

- [http://www.who.int/gho/en/](http://www.who.int/gho/en/) Global Health Observatory is WHO's portal for data and analyses for monitoring the global health situation. Includes data repository, statistical reports, and more. Many of the items below are linked here too.
- [http://gamapserver.who.int/mapLibrary/app/searchResults.aspx](http://gamapserver.who.int/mapLibrary/app/searchResults.aspx) Map gallery
- [http://www.who.int/healthinfo/global_burden_disease/en/index.html](http://www.who.int/healthinfo/global_burden_disease/en/index.html) Global Burden of Disease analysis provides a comprehensive and comparable assessment of mortality and loss of health due to diseases, injuries and risk factors for all regions of the world. The overall burden of disease is assessed using the disability-adjusted life year. includes documentation of methods and data sources (but also see IHME)
Some more data sources

- [http://www.dcp2.org/page/main/Home.html](http://www.dcp2.org/page/main/Home.html) The Disease Control Priorities Project is an ongoing effort to assess disease control priorities and produce evidence-based analysis and resource materials to inform health policymaking in developing countries.
- [http://www.globalhealth.gov/](http://www.globalhealth.gov/) The United States Department of Health and Human Services’ Office of Global Affairs promotes the health and well-being of Americans and of the world’s population by advancing global strategies and partnerships and working with US agencies in the coordination of global health policy. Look for links to non-communicable diseases including HIV/AIDS, malaria, and tuberculosis, as well as maternal and child health.
- [http://www.cdc.gov/globalhealth/](http://www.cdc.gov/globalhealth/) The United States Centers for Disease Control works with international organizations in more than 60 countries on a variety of focus areas; look for information on focal diseases and medical conditions via their “programs and topics” link: [http://www.cdc.gov/globalhealth/programs/](http://www.cdc.gov/globalhealth/programs/).

- [http://www.gapminder.org/](http://www.gapminder.org/)
- [http://www.worldmapper.org/textindex/text_index.html](http://www.worldmapper.org/textindex/text_index.html)
Great places to learn more

- [http://blogs.plos.org/globalhealth/about/](http://blogs.plos.org/globalhealth/about/)
- [http://www bvgh.org/Biopharmaceutical-Solutions/Global-Health-Primer.aspx](http://www bvgh.org/Biopharmaceutical-Solutions/Global-Health-Primer.aspx) BIO Ventures for Global Health is a non-profit organization which aims to accelerate the development of novel drugs, vaccines, and diagnostics coming from the biotechnology industry that address the unmet medical needs of the developing world. Their Global Health Primer is designed to inform industry research and development to spur innovations that are desperately needed for neglected tropical diseases.
- [http://www.scidev.net/global/health/](http://www.scidev.net/global/health/) This site is a good source for news related to science and development. Use the “Health” dropdown to research the latest news on specific disease areas.
learn more about a selected global health need via your first assignment, due in a week.
about this course
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Case</th>
<th>Readings [optional]</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 09/05</td>
<td>Intro to global health; Challenges in reaching scale; Business models</td>
<td>CFW shops (PBS video)</td>
<td>Kim &amp; Bradach Rottenburg &amp; Morris [Magretta] [Bradach]</td>
<td></td>
</tr>
<tr>
<td>2 09/10</td>
<td>Cooperative approaches as growth strategies</td>
<td>Hello Healthcare* (Ivey case)</td>
<td>Guest Johnson, Christensen &amp; Kagerman</td>
<td></td>
</tr>
<tr>
<td>3 09/12</td>
<td>Operations; Other growth strategies</td>
<td>Riders for Health* (Stanford case); optional videos</td>
<td>Yadav, Stapleton &amp; Van Wassenhove</td>
<td>2-page individual managerial briefing paper</td>
</tr>
<tr>
<td>4 09/17</td>
<td>Business thinking, innovation, and scale</td>
<td>Avahan India AIDS Initiative (GHD case)</td>
<td>Kim, Porter &amp; Farmer Porter [Porter] [Sgaier et al] [Rhatigan et al]</td>
<td>Team selection</td>
</tr>
<tr>
<td>5 09/19</td>
<td>Public-private collaboration</td>
<td>SMS For Life A* (IMD case)</td>
<td>Kania &amp; Kramer [Hanleybrown, Kania &amp; Kramer] [Sekhri, Feachem &amp; Ni] [Jakobsen, Wang &amp; Mwaka]</td>
<td></td>
</tr>
<tr>
<td>6 09/24</td>
<td>Philanthropy</td>
<td>TBA</td>
<td>Gupta Other TBA [Murphy]</td>
<td>Team memo on value measure, value chain &amp; value proposition</td>
</tr>
<tr>
<td>7 09/26</td>
<td>Systems thinking</td>
<td>Aravind (TED video)</td>
<td>Rangan &amp; Thulasiraj</td>
<td></td>
</tr>
<tr>
<td>8 10/01</td>
<td>Franchise models</td>
<td>Living Goods* (ICMR case)</td>
<td>Beck, Deedler &amp; Miller Other TBA [Pindyk] [Bishai et al]</td>
<td>Draft Executive Summary &amp; Deck</td>
</tr>
<tr>
<td>9 10/03</td>
<td>Organizational sustainability and scale</td>
<td>Narayana Hrudayalaya A* (HBS case)</td>
<td>Prahalad &amp; Mashelkar</td>
<td>Meet with TA to review Executive Summary &amp; Deck</td>
</tr>
<tr>
<td>10 10/08</td>
<td>Presentations &amp; expert response, discuss links to learning &amp; innovation theme</td>
<td>Mini-case executive summaries</td>
<td>Milway &amp; Saxton Seelos &amp; Mair</td>
<td></td>
</tr>
<tr>
<td>11 10/10</td>
<td>Presentations &amp; expert response, discuss transfer / reverse innovation theme</td>
<td>Mini-case executive summaries</td>
<td>Govindrajan &amp; Trimble* Onie, Farmer &amp; Behfouz [dePasse &amp; Lee] [frugal innovation collection]</td>
<td></td>
</tr>
<tr>
<td>12 10/17</td>
<td>Wrap-up</td>
<td>TBA</td>
<td>TBA</td>
<td>Updated Final Exec Summary &amp; Deck</td>
</tr>
</tbody>
</table>
mini case study
ColaLife (Zambia and elsewhere)
Embrace (India and global)
Medicall Home (Mexico and US)
Medic Mobile (South Africa and global)
ADDOs / MSH (Tanzania)
SughaVazhu (India)
D-tree International (Tanzania and elsewhere)
Blue Star (various locations)
Aprofe (Ecuador)
Vecna Cares (US and global)
LifeNet (Burundi)
Clinics4all (South Africa and elsewhere)
The Access Project (Rwanda)

Past studies:
pro mujer, Bolivia, Nicaragua, Peru, Mexico, Argentina
sana mobile, US based, in Phillippines and elsewhere
World Health Partners, India
Hygeia Community Health Plan, Nigeria
HealthPoint Services, India
Jaipur Foot, India
Magrabi Hospitals, Saudi Arabia, Egypt, Yemen
Arogya Parivar, India
Maternova, US-based, global
MedPlus Clinics, India

options for team
mini case studies

Heart Institute of the Caribbean (Jamaica)
Nyaya Health (Nepal)
Smile Train (India)
Sproxil (Nigeria)
Living Goods (Uganda)
Mi Farmacita Nacional (Mexico)
Village Health Works (Burundi)
Shining Hope for Communities (Kenya)
LifeBox (US/UK based, global)
Penda Health (Kenya)
Jacaranda (Kenya)
Vaatsalya Hospitals (India)
VisionSpring (US-based, global)
start on your assignment today!
15.232 Business Model Innovation: Global Health in Frontier Markets
Fall 2013

For information about citing these materials or our Terms of Use, visit: http://ocw.mit.edu/terms.