Building Comprehensive Sustainable Eye Care Programs

Victoria M. Sheffield, President & CEO
International Eye Foundation
Blindness Threat

1. Public health causes: trachoma, onchocerciasis, and VAD prevented and treated by CHWs = 10% of the world’s blindness.

2. Cataract, glaucoma, AMD, DR, ++ require treatment by a qualified ophthalmologist = 90% of the world’s blindness.
Sustainability

Is it the same as “capacity building”?
• HR Training
• Equipment
• Outreach

Yes, but taking it steps further:
• Manager and management training
• Accountant and finance training
• Patient counselors
• Pricing structures
• Revenue generating services
• Quality standards and protocols
Eye hospitals in developing countries typically:

- inefficient
- unproductive
- questionable quality
- lack earned revenue to attract and retain qualified staff, buy and maintain equipment, and grow services.
Phase I - Workshop

• Quality, efficiency, management practices, standards & protocols
• Patient needs and expectations, counseling
• Planning, product/service choices, data analysis, demand forecasting, resource allocation
• Budgeting, pricing, unit costs, cost reduction, procurement practices, patient willingness to pay
Phase II – T/A Investment

- Streamline patient flow to reduce waiting times in clinic and OR
- Change pricing from variable to fixed
- Base pricing on patient income and willingness to pay
- Define staff roles and responsibilities
- Introduce patient counselors
- Introduce CMIS

Economic formula:
5% very rich
5% rich
70% middle income
10% poor
10% very poor
Clinica Divino Nino Jesus, Peru (NGO Sector)

Juntos damos luz.
Clinica Divino Nino Jesus, Peru (NGO Sector)

Consultations

2009 IEF Intervention

2006 2007 2008 2009 2010 2011 2012 2013 2014
Operations were reduced in 2013 and 2014 due to renovations in the clinic and OR
Clinica Divino Nino Jesus, Peru (NGO Sector)

Patient Choice - Simplified Pricing

- **2011**: Blue (Subsidized) > Red (Paying) > Green (Free)
- **2010**: Blue (Subsidized) > Red (Paying) > Green (Free)
- **2009**: Blue (Subsidized) > Red (Paying) > Green (Free)
- **2008**: Blue (Subsidized) > Red (Paying) > Green (Free)

Legend:
- Green: Free
- Blue: Subsidized
- Red: Paying
<table>
<thead>
<tr>
<th></th>
<th>Baseline 2012</th>
<th>Intermediate 2013</th>
<th>Final 2014</th>
<th>% Increase 2012-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultations – New</td>
<td>15,184</td>
<td>13,587</td>
<td>18,738</td>
<td>23%</td>
</tr>
<tr>
<td>Consultations – Review</td>
<td>21,863</td>
<td>26,267</td>
<td>26,046</td>
<td>19%</td>
</tr>
<tr>
<td><strong>Total Consultations</strong></td>
<td><strong>37,047</strong></td>
<td><strong>39,854</strong></td>
<td><strong>44,784</strong></td>
<td><strong>21%</strong></td>
</tr>
<tr>
<td>% Increase</td>
<td></td>
<td>8%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Surgery – Cataract</td>
<td>754</td>
<td>50</td>
<td>1,258</td>
<td>67%</td>
</tr>
<tr>
<td>% Increase</td>
<td></td>
<td>26%</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>Surgery – Other Major</td>
<td>334</td>
<td>324</td>
<td>324</td>
<td>-3%</td>
</tr>
<tr>
<td>Surgery – Other Minor</td>
<td></td>
<td></td>
<td>1,300</td>
<td>2,500</td>
</tr>
<tr>
<td>Service</td>
<td>Baseline 2012</td>
<td>Intermediate 2013</td>
<td>Final 2014</td>
<td>% Increase 2012-14</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------</td>
<td>-------------------</td>
<td>------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Consultations – New</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Consultations – Review</td>
<td>13,487</td>
<td>13,830</td>
<td>17,198</td>
<td>28%</td>
</tr>
<tr>
<td>Outreach Consultation</td>
<td>-</td>
<td>403</td>
<td>517</td>
<td>28%</td>
</tr>
<tr>
<td>Total Consultations</td>
<td>13,487</td>
<td>14,233</td>
<td>17,715</td>
<td>31%</td>
</tr>
<tr>
<td>% Increase</td>
<td></td>
<td>12%</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Surgery – Cataract</td>
<td>1,231</td>
<td>1,716</td>
<td>2,504</td>
<td>103%</td>
</tr>
<tr>
<td>% Increase</td>
<td></td>
<td>39%</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td>Surgery – Other Major</td>
<td>1,787</td>
<td>1,703</td>
<td>1,693</td>
<td>-5%</td>
</tr>
<tr>
<td>Surgery – Other Minor</td>
<td>6,016</td>
<td>4,462</td>
<td>8,048</td>
<td>34%</td>
</tr>
</tbody>
</table>
1. 163,000 students in Philadelphia public school district
2. Only 82%-87% screened over entire school year (138,550)
3. 400 – 1500 children per school
4. Not all nurses are full time
5. 23,000 failed screening exam (15.7%) referred to Eagles Van (concentrates on schools w/ 80% of children < poverty line = 28+ schools of 289 in Philadelphia)
6. 3,300 screened by Eagles Van (8%)
7. 14,000 of 23,000 failed never see an eye doctor
8. Remainder may get care on their own
9. Eye screening not a priority in all schools
IEF Consultation - 2013

Meetings in Philadelphia with:

- Wills Eye Hospital Eye Department in Philadelphia - clinical
- Eagles Youth Partnership - clinical outreach
- School Nurses - screening
- School Superintendent and team - policy

USA: many benefits available, not integrated, hard for patients to navigate.

A merry-go-round without a pole!
Key Changes

- Children screened in the first 7 weeks of the year to allow for children to access eye care appointments.
- Set up multiple screening lanes in gym or library instead of one at a time in the nurse’s office.
- Eagles made up “Eagles Eye Mobile in a Box” including vision charts, insurance and referral forms, etc.
- School superintendent sent a letter to all principals making eye screening a priority.
- Second social worker hired at Wills to follow-up children needing further exams.
## Correlation between developing countries and US

<table>
<thead>
<tr>
<th></th>
<th>Developing Country</th>
<th>Philadelphia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of Counselors</td>
<td>Increase acceptance of cataract surgery and follow-up</td>
<td>Social workers increased follow-up after initial Wills exam from 1% to 42%</td>
</tr>
<tr>
<td>Cost of patient finding</td>
<td>$421 per patient to screen, identify, transport to hospital - Tanzania</td>
<td>$70.49 net cost after insurance</td>
</tr>
<tr>
<td>Female literacy</td>
<td>2 years literacy for women &amp; girls leads to better health status in children - UNICEF</td>
<td>Correlation between increased HS grad rates &amp; increased return of children for follow-up</td>
</tr>
<tr>
<td>Underutilization of resources</td>
<td>Increase efficiencies by streamlining processes and monitoring</td>
<td>Increased efficiencies at Wills &amp; EYP screened and treated more children in a shorter time</td>
</tr>
</tbody>
</table>
Gad Dotan, MD; Billy Truong, BS; Melanie Snitzer, MSW, LSW; Colleen McCauley, MPH; Sarah Martinez-Helfman, MS; Kathy Santa Maria, COT; Alex V. Levin, MD, MHSc; Outcomes of an Inner-City Vision Outreach Program-Give Kids Sight Day, JAMA Ophthalmol. doi:10.1001/jamaophthalmol.2015.8, Published online February 12, 2015

Laura T. Pizzo, PharmD, MPH; Melanie Snitzer, MSW, LSW; Tony Amos, PharmD; Katherine M. Prioli, BS; Deon Steele, MPH; Alex V. Levin, MD, MHSc; Cost and Effectiveness of an Eye Care Adherence Program for Philadelphia Children with Significant Visual Impairment; Population Health Management, Volume 0, Number 0, 2015, DOI: 10.1089/pop.2014.0090
Thank you!