UKRAINIAN POLIO PROGRAM (UPP)

Team Antivirus
April 19th, 2014

Consultants:
Lara Esin
Aasrith Ganti
Raies Mir
Mercedes Murphy
Shannon Patelsky

Retrieved from:
OVERVIEW*

Big Data Approach
Infrastructure
Community Outreach
Program Action
Future Plans

*Crimea is included in plan
**Big Data Definition**

Big data is a popular term used to describe the exponential growth and availability of data, both structured and unstructured. And big data may be as important to business – and society – as the Internet has become.

- Popularly used for selling us stuff!!!
- Can be used for predicting infectious diseases
- Bill and Melinda Gates foundation supports projects with Big Data
- Watson Human Genome Project
BIG DATA APPROACH

Database from WHO and previous Intervention activities

Using migration patterns of people from Syria.

Taking into account the climate, geography and living standards.
INFRASTRUCTURE

Global Health Organizations:

- NATO/UN military forces: for protection and distribution
- Rotary international: mirror Pakistan-Afghanistan border protocols
- Centers for Disease Control and Prevention: surveillance
- UNICEF: funding and supplies
- USAID: funding
- Bill and Melinda Gates Foundation: funding

Local Organizations:

- Ukraine Red Cross Society: personnel and volunteers
- Peace Corps volunteers: community and youth development programs
- Ukrainian military: border and airport protection
## ECOLOGICAL FRAMEWORK

| Societal                  | • Government corrupt & unrepresentative of public  
|                          | • Public debt  
|                          | • War & foreign occupation  
| Community                | • Displacement & Refugee status  
|                          | • Poor healthcare delivery  
|                          | • Transport and storage  
|                          | • Discordance between healthcare professionals and needs of community  
| Relationship             | • Parents unconvinced of need to vaccine  
| Individual               | • Lack of vaccination  
|                          | • Poverty/access  
|                          | • Poor health education  
|                          | • Loss to follow-up  

COMMUNITY OUTREACH

- Social Mobilization
- Community Outreach
- Media Campaigns
- Intensive Interpersonal Communications
FREE ORAL POLIO VACCINATION

Come get yourself and your young ones VACCINATED!

ON: 
AT:

Oral Polio Vaccine is essential to protecting you and your family!

Polio may lead to permanent paralysis!

You are at high risk for getting the disease.
PROGRAM ACTION

Establish Problem:
Collect Baseline Data

Prevent Mobilization of Disease:
Border Security Customs/ Rotary International

Educating the Population:
Community Outreach

Target High Risk Population:
- Young Children (Birth-15 years)
- Hospitals (birth)
- Homes (Less than 6 years old)
- Schools (6-15 years)

Target Low Risk:
Aim for remaining population.

Assess Program:
Collect Intervention data
PROGRAM ACTION: TIMELINE OF 2 YEAR

Phase 1: High-Risk Population
2 months
Vaccination and Education

Phase 2: Lower-Risk Population
10 months
Vaccination and Education

Phase 3: Self-Sustainability
6 and 12 months
Continued Vaccination and Evaluations
2 YEAR ESTIMATED PROGRAM BUDGET

<table>
<thead>
<tr>
<th>Supplies</th>
<th>No Action</th>
<th>UPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPV</td>
<td>0USD</td>
<td>22.9M USD*</td>
</tr>
<tr>
<td>Labor</td>
<td>0USD</td>
<td>Volunteerism</td>
</tr>
<tr>
<td>Vaccine transport and storage</td>
<td>0USD</td>
<td>9.9M USD</td>
</tr>
<tr>
<td>Economic cost</td>
<td>800M USD†</td>
<td>~0USD††</td>
</tr>
<tr>
<td>Total</td>
<td>800M USD</td>
<td>32.8M USD</td>
</tr>
</tbody>
</table>

* 0.127USD/dose* 4 doses*45,000,000 people
** 100,000 units/40-ft³ container = 5500USDx1,800 containers
† Based on average life expectancy, per capita GDP and expected number of deaths by no vaccination
†† Cases of vaccine-associated poliomyelitis occur sporadically
FUTURE PLANS

◆ Process Evaluation: who is receiving the vaccine
◆ Impact Evaluation: how many people we immunized
◆ Outcome Evaluation: 6 months and 1 year later
◆ Continued sampling of environmental samples for polio
◆ Succession of OPV and introduction of IPV (Global Polio Eradication Initiative, 2010)
THE EFFECTS OF POLIO

◆ Cost-effective
◆ Declining population growth rate
◆ Insure the standard of living

Thank You!
REFERENCES

• http://www.ibmbigdatahub.com/infographic/combat-illness-and-infectious-diseases-real-time-bigdata
• http://www.zlok.net/blog/wp-content/uploads/ibm7.jpg
• http://researcher.watson.ibm.com/researcher/view_project.php?id=1179
• http://www.who.int/immunization/sage/meetings/2012/november/1_DRAFTGPEI_EndgameStrategicPlan23Oct12.pdf
• http://www.polioeradication.org/posteration/opvcessation.aspx
• http://www.who.int/bulletin/volumes/85/6/06-037457/en/
• http://www.who.int/bulletin/volumes/87/8/08-060863/en/


(2013). *Polio eradication and endgame strategic plan 2013–2018 - see more at:*
http://www.polioeradication.org/resourcelibrary/strategyandwork.aspx

• https://www.cargoshippingexperts.com/FreeQuote.aspx