



## Web Site Maps – Strategic Path

Robin Bram 9/28/16

Maps are like campfires: everyone gathers around them because they communicate complex issues at a glance, and generate alignment on how to help.

—Sonoma Ecology Center, GIS/IS Program Web Site



**Give *pathways* to health  
so a child can learn, a  
parent can provide and a  
neighbor can help**



## Maps are for story telling and problem solving

- Maps are one of the most trusted forms of communication, perhaps because they depict the real world. <sup>1</sup>
- Maps are visuals and the human brain is wired to process visuals.<sup>2</sup> Visuals go straight to long term memory. <sup>3</sup>
- No shortage of new ways to interact with maps. An older chinese proverb: What I hear, I forget; What I see, I remember; What I do, I understand.
- Maps enable us to illustrate never-before seen trends in the world, explore spatial relationships and see patterns of behavior, plan where we want to do what and predict future events.

<http://news.mit.edu/2014/in-the-blink-of-an-eye-0116>

<http://news.nationalgeographic.com/2015/10/151022-data-points-how-make-maps-influence-people/>

[http://changingminds.org/explanations/learning/active\\_learning.htm](http://changingminds.org/explanations/learning/active_learning.htm)

### *Learning visually*

The human brain can interpret images that the eye sees in just 13 milliseconds. To put that in perspective, it takes you 300 to 400 milliseconds to blink your eye, which is 1/3 of a second. So you can process 30 images in 1/3 of a second or a blink of an eye. The job of the eyes is not only to get the information into the brain, but to allow the brain to think about it rapidly enough to know what you should look at next. The research shows also that part of the brain continues to process images longer than that.

### *Learning through maps*

Maps simplify info through use of symbols and classification. We depend on maps every day—to navigate, to check the weather, and to understand the world.



# Maps throughout time

Maps transcend language.

## Pump is Source of Cholera Outbreak in 1854



1854: Physician John Snow convinces a London local council to remove the handle from a pump in Soho to solve a deadly cholera epidemic.

Snow used a [dot map](#) to illustrate the **cluster of cholera cases around the pump**. He also used statistics to illustrate the connection between the quality of the water source and cholera cases. He showed that the [Southwark and Vauxhall Waterworks Company](#) was taking water from sewage-polluted sections of the [Thames](#) and delivering the water to homes, leading to an increased incidence of cholera.

Snow's study was a major event in the history of public health and geography. It is regarded as the founding event of the science of [epidemiology](#) - the branch of medicine that deals with the incidence, distribution, and possible control of diseases and other factors relating to health.



# How we can use maps at AmeriCares

*Maps are ubiquitous*

## Inform and Engage– See & Inform our Work in Process

- Average attention span online in 2015 was 8 seconds, shorter than a goldfish. Maps on AmeriCares web site will enable donors to **consume more information** about AmeriCares' on an **emotional and logical level**.
- According to social media news outlets, user generated content on a map **increases social media engagement** & followers. <sup>1</sup>
- Maps **align with causes**. The Forbes Funds says 78% of Millennials are likely to stop donating if they don't know how their donation is making a difference and 85% of Millennials are motivated by a compelling mission or cause. <sup>2</sup>
- Maps **support corporate partnerships**. Maps show how the partnership made a difference, provide co-brand and volunteer opportunities and contribute to CSR pages. <sup>3</sup>

1. <http://www.socialmediaexaminer.com/5-visual-content-tools-to-boost-engagement/> and <http://harkable.com/blog/the-best-social-media-campaigns-in-music/>  
2. <https://forbesfunds.org/what-nonprofits-need-know-about-millennials>  
3. [http://www.huffingtonpost.com/brady-josephson/3-things-companies-want-i\\_b\\_7904524.html](http://www.huffingtonpost.com/brady-josephson/3-things-companies-want-i_b_7904524.html)



# How we can use maps at AmeriCares

*Maps are ubiquitous*

## Thought Leadership – Increase Accountability & Transparency (i.e. We are not Red Cross)

- Maps **promote transparency** to donors and build confidence in our mission.
- In an environment where we exchange data, **we stay relevant** by “Owning a layer of the map”.
- Maps allow us to **monitor and respond to real time data** from sensors/IoT that allows us to predict and feed into UN Sustainable Development Goals.

## Vision

**Greater Engagement = More Donations**

### Static Reporting

- Press Releases
- News Stories

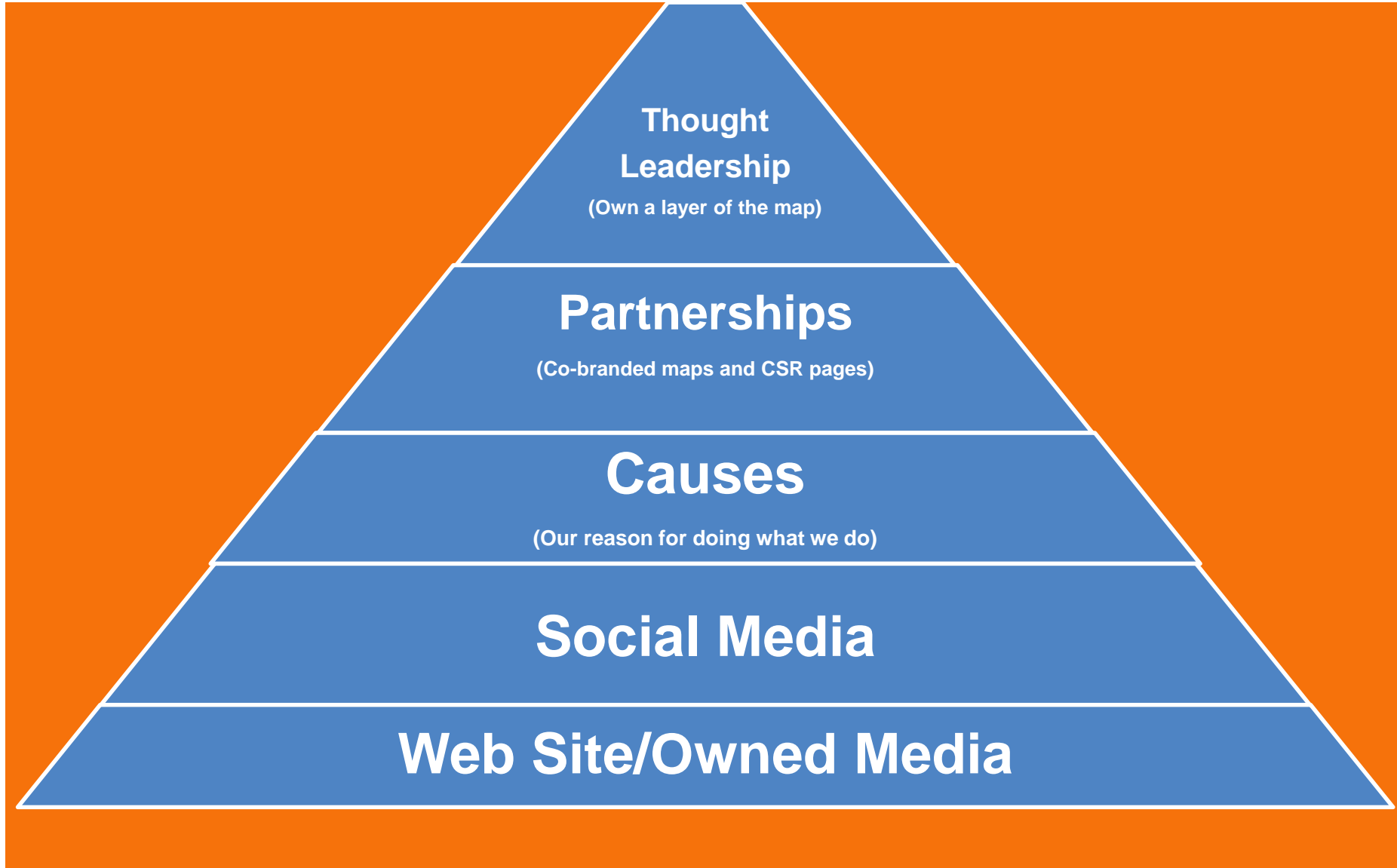


### Interactive Engagement

- Airlift
- Maps(+images/videos)
- Maps as donations tool
- Virtual reality
- Games
- Crowd problem solving
- Virtual volunteers



# Stages of implementation and hierarchy of impact





## Web Site

- Maps enables us to model reality, track people and visualize scale, scope, time and impact. Maps are “a good story well told”<sup>1</sup>.

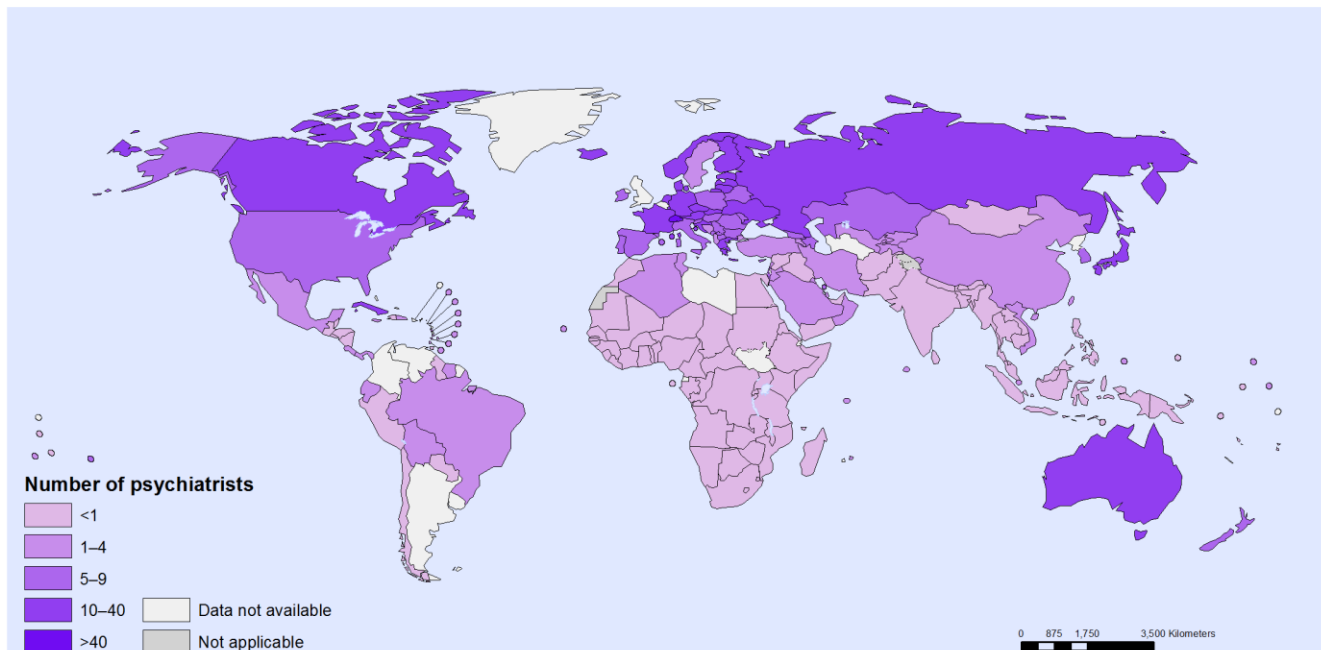


## Social Media – Advocacy

- We can boost sharing on social media through advocacy and user generated content. <sup>1</sup>

*e.g. Advocate for more psychiatrists in disaster prone areas.*

Psychiatrists working in mental health (per 100 000 population), 2011



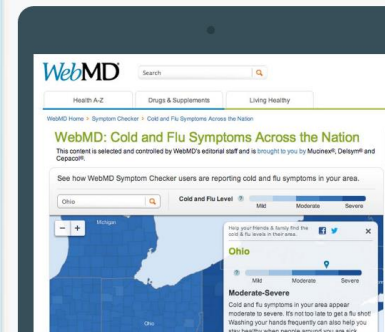
### Layer in Disaster Risk

Country	Rank	Disaster risk <sup>[2]</sup>
 Mauritius	160	15.18%
 Brunei Darussalam	161	15.58%
 Papua New Guinea	162	15.90%
 Timor-Leste	163	16.37%
 El Salvador	164	16.85%
 Cambodia	165	16.90%
 Costa Rica	166	16.94%
 Solomon Islands	167	18.11%
 Bangladesh	168	19.81%
 Guatemala	169	20.88%
 Philippines	170	27.52%
 Tonga	171	28.23%
 Vanuatu	172	36.43%

1. <http://www.socialmediaexaminer.com/5-visual-content-tools-to-boost-engagement/>

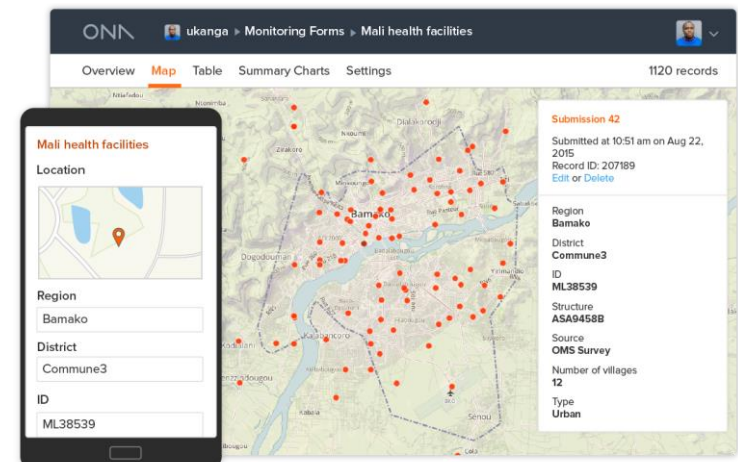
## Social Media – User Generated Content

*e.g. Participate on a map. Find your way to an open clinic in a disaster, see health alerts and urgent needs from our clinics around the world, share a health or safety hazard or review a clinic.*



### WebMD Cold and Flu Symptoms map

WebMD predicts and monitors the spread of the cold in real-time with their Cold and Flu Symptoms Map. With self-reported data from WebMD users across the country, WebMD maps hotspots as they flare.



## Causes

- Giving donors a choice of causes to sponsor increases donor involvement. The Forbes Funds says 85% of Millennials are motivated by a compelling mission or cause. <sup>1</sup>

*e.g. Adopt a Clinic*



Jennie Sage  
@thejenspot

**Join our Keeping the World Healthy - Good Samaritan program. Choose a location for a clinic, fund it and keep the world safe.**



**With my donation, I just gave health and funded this clinic in Malawi.**

Countries with a critical shortage of health service providers (doctors, nurses and midwives)



1. <https://forbesfunds.org/what-nonprofits-need-know-about-millennials>



## Causes

*e.g. Adopt a Clinic*

### • Problem

- Life expectancy and disability adjusted life years by country
- Life expectancy and disability adjusted by clinic
- Local health news
- Local drug costs

### • Solution

- Diagnostics, monitoring (sensors), education (telemedicine/ehealth), health coaches and supplies

### • Impact

- Increase in life expectancy or decrease in disability adjusted life years in area over time

### • Engage

- Volunteers and donors add partner clinics to open street map including district information, construction type and path to facility during a disaster.
- Volunteer to create educational programs and other materials around needs / prevention.
- Q&A / provide opportunity to listen to real time chatter on what's app.
- Watch delivery of medicine
- See out of stock items on shelves with sensors tracking medicines on shelf.

31 March 2015

**ICT4D 'Telemedicine' project brings needed medical expertise to remote Benin**



In Benin, an ICT4D 'Telemedicine Kit' pilot by SOS Children's Villages, Inmarsat and Safe Patient System is bringing advanced medical care to communities far from hospitals.



## Partnerships - Background

**Corporate partnerships are trending towards solving real world problems, corporates are expected to do social good, employees expect to be involved and products are customized to community needs.**

### ➤ What Millennials care about

#MSLBizCitizenship



#### **Become active citizens.**

**83%**

believe businesses should be involved in societal issues.



#### **Talk about your efforts.**

**79%**

wish it were easier to know what companies were doing good.



#### **Make an impact.**

**82%**

believe businesses can make a greater impact addressing societal issues.



#### **Involve consumers.**

**69%**

want businesses to make it easier for consumers to get involved in societal issues.

Donors go beyond cash: When Tableau teamed with PATH, the winners spanned the globe

“How would you like to help us eliminate malaria in Zambia?”


“It’s almost an expectation now that companies engage in some kind of positive change and social good in the world

“We really like...rolling up our sleeves and being in the trenches with the organizations”


“Health workers will report new cases of malaria in real-time. Then Zambia’s Ministry of Health will use technology to see and understand that data, and deploy the appropriate resources to contain the outbreak.”

The nonprofit is also getting a check — \$500,000 over five years — plus software and technical support

# Partnerships – Co-brand opportunities



[PRODUCTS](#) [THE VASELINE® STORY](#) [SKIN HEALTH](#) [THE HEALING PROJECT](#) [LIP TINS](#)



[Stories and learn more about The Healing Project.](#)


**ABOUT OUR PARTNER**

**OUR MISSION**


The mission of the Vaseline® Healing Project is to help heal the skin of 5 million people by 2020. We will do this by:


- Donating Vaseline® products to people in need through Direct Relief's kit programs and global network of healthcare organizations and clinics.
- Sponsoring dermatologists to go on medical missions to treat people affected by crisis or emergencies
- Developing training for community health workers to help properly diagnose and treat skin conditions

PEOPLE REACHED  
**1.767.514**





[Share](#)





[HOME](#) [ABOUT](#) [DATA](#) [MEMBER ACCESS](#)







[VIEW PROJECTS LIST](#)

Map data ©2016 Terms of Use Report a problem

[SECTOR](#) [ORGANIZATIONS](#) [DONORS](#) [COUNTRIES](#)



Sponsored by FedEx 

# Partnerships – CSR pages

*Are interactive maps the new must-have of CSR reports? <sup>1</sup>*



FRONT PAGE > OUR COMPANY > COMMUNITY MAP

## Refreshing Our Community

Creating goodwill and strengthening the communities we serve



\$171,609,932 IN COMMUNITY INVESTMENTS\*



Share this view of the map <http://www.coca-colacompany.com>

\* Selection reflects grants awarded (\$USD)

Reflects the number of grants awarded in a geographic

Water: Access to clean water, water conservation and recycling

Women: Economic empowerment and entrepreneurship



We Are Cisco @WeAreCisco · 2 Aug 2015

Our Corporate Social Responsibility efforts impact the entire globe. How we make a difference: [csr.cisco.com/pages/global-i...](http://csr.cisco.com/pages/global-i...)



## Thought leadership – IoT

- The Internet of Things represents a unique opportunity to raise the quality of life for millions, if not billions of people in the developing world.
- The United Nations ITU/ specialized agency for information and communication technologies says that the IoT has already had a direct, positive impact on at least 12 of the 17 Sustainable Development Goals (SDGs)

**Table 3 - Examples of IoT interventions mapped to the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs)**

Sector	MDG	SDG	Examples
Health, Water & Sanitation	MDG 4: Child Health MDG 5: Maternal health MDG 6: Combat HIV/ AIDS, malaria and other diseases	SDG 3: Ensure healthy lives and promote well-being for all at all ages. SDG 6: Ensure availability and sustainable management of water and sanitation for all.	Sensor- and SMS-enabled village water pumps (Rwanda, Kenya); GSM-connected refrigeration for vaccine delivery in the 'cold chain' (Global); sensor-enabled 'band aid' to monitor Ebola patients' ECG, heart rate, oxygen saturation, body temperature, respiratory rate and position, all remotely (West Africa); water stream gauge with sonar range sensor to monitor river flow and depth (Honduras); water flow sensors and motion detectors in latrines to monitor efficacy of hygiene training and intervention (Indonesia).

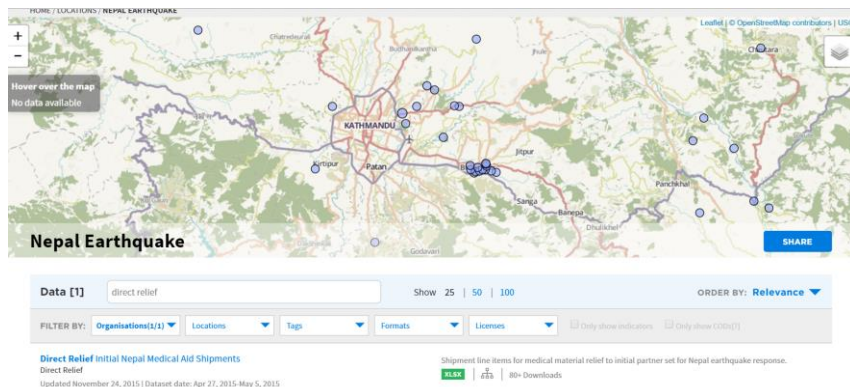


# Thought Leadership – Collaborate

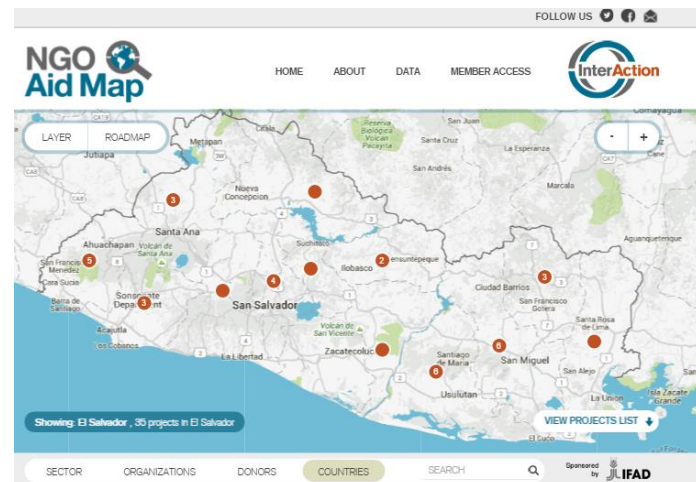
*Coordinate with other NGOs/Public Service*

- **Maps promote transparency to donors and granting agencies and build confidence in our mission. Maps are also a public service, reduce response time in a disaster and allow for coordination of spending and activity between all NGOs.**

## Humanitarian Data Exchange



## NGO Aid Map



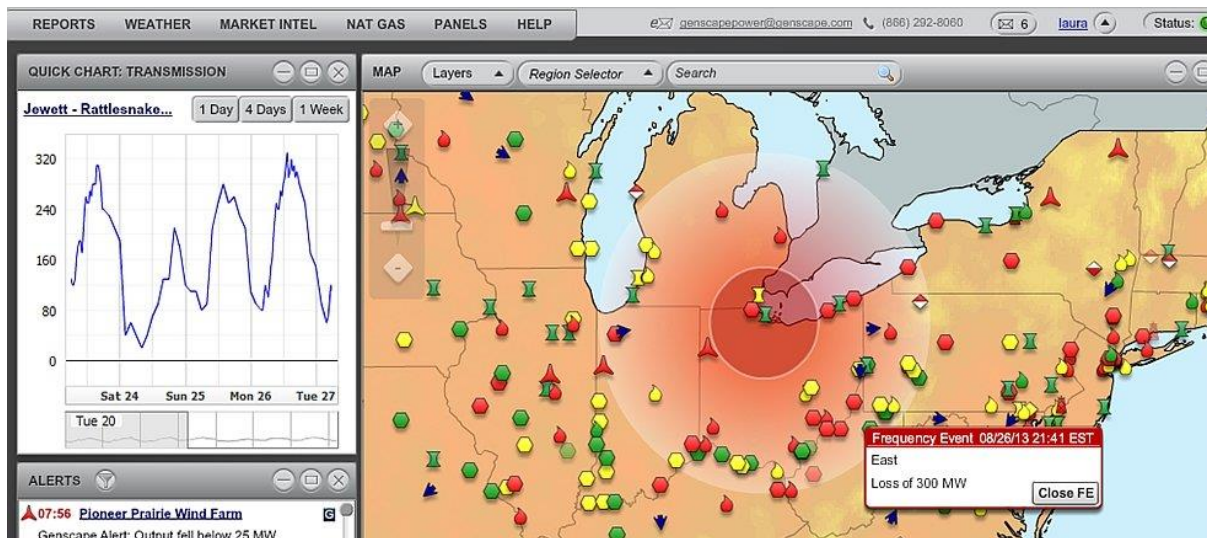


## Thought Leadership – Data

*Bill Rue of GE Digital says process improvement has run its course and now productivity gains will be made through data (sensors) and analytics where we can predict a major asset breaking before it happens.*

- **e.g. AmeriCares could monitor vibration levels on its generators and predict problems. We can also share the location of working generators in a disaster.**
  - Gather Data: Monitor generators donated by Americares.
  - Predictive Model: Predict when generators will need replacement.
  - Own a layer of the map: During a disaster, share where we know there are working generators.

## Monitor generators & inform decision on new generator locations



**\*\*Could also monitor empty shelves with motion sensors.**

# Thought Leadership – Predict

## *Create predictive models*

- e.g. Medical Outreach Doctor's could communicate with chronic care patients that are injured or in need via SMS or Social Media in a disaster and later predict chronic care needs in a disaster.
  - Gather Data: Chronic care questions and answers stored in knowledge database by question type and disaster type. (Drone in medicines to individuals as needed).
  - Predictive Model: Predict chronic care needs by disaster and community type.
  - Own a layer of the map: Chronic care needs being addressed during a disaster.

## Dashboard of Americares two-way communication via SMS/hotline in a disaster

### Healthcare Prevention Services

- Health Education
- Counseling and Psychological Services
- STD and HIV Prevention
- Public Health Services and Information
- Suicide Textlines
- Addiction Counseling and Support
- Teen and Young Adult Sexual Education
- Support for Living with Diseases
- Wellness and Nutrition
- Alerts and Notices for Preventative Care

### Healthcare Communication Services

- Pre/Post Natal Support
- Prescription Refill and Medication Reminders
- Newborn and Infant Care
- Reminders for Scheduled Appointments
- Test Results
- Lactation Consulting and Support



GET A QUOTE



## Summary

- Maps are becoming an industry norm and will play an increasingly strategic role in fundraising efforts. They will drive donor engagement and demonstrate our thought leadership.
- The donor landscape is changing. By 2020 we expect a greater quantity of donations from millennials. And in the next 20-30 years, millennials will represent the greatest transfer of wealth in the history of mankind [30 trillion] <sup>1</sup>. Maps will play a significant role in encouraging millennials through experiential transparency to donate more often and at higher levels.
- Mapping will continue to advance. Maps transcend language and geographic boundaries and incorporate next generation thinking.

1. <http://www.businessinsider.com/biggest-transfer-of-wealth-in-history-2014-6>



## Implementation overview

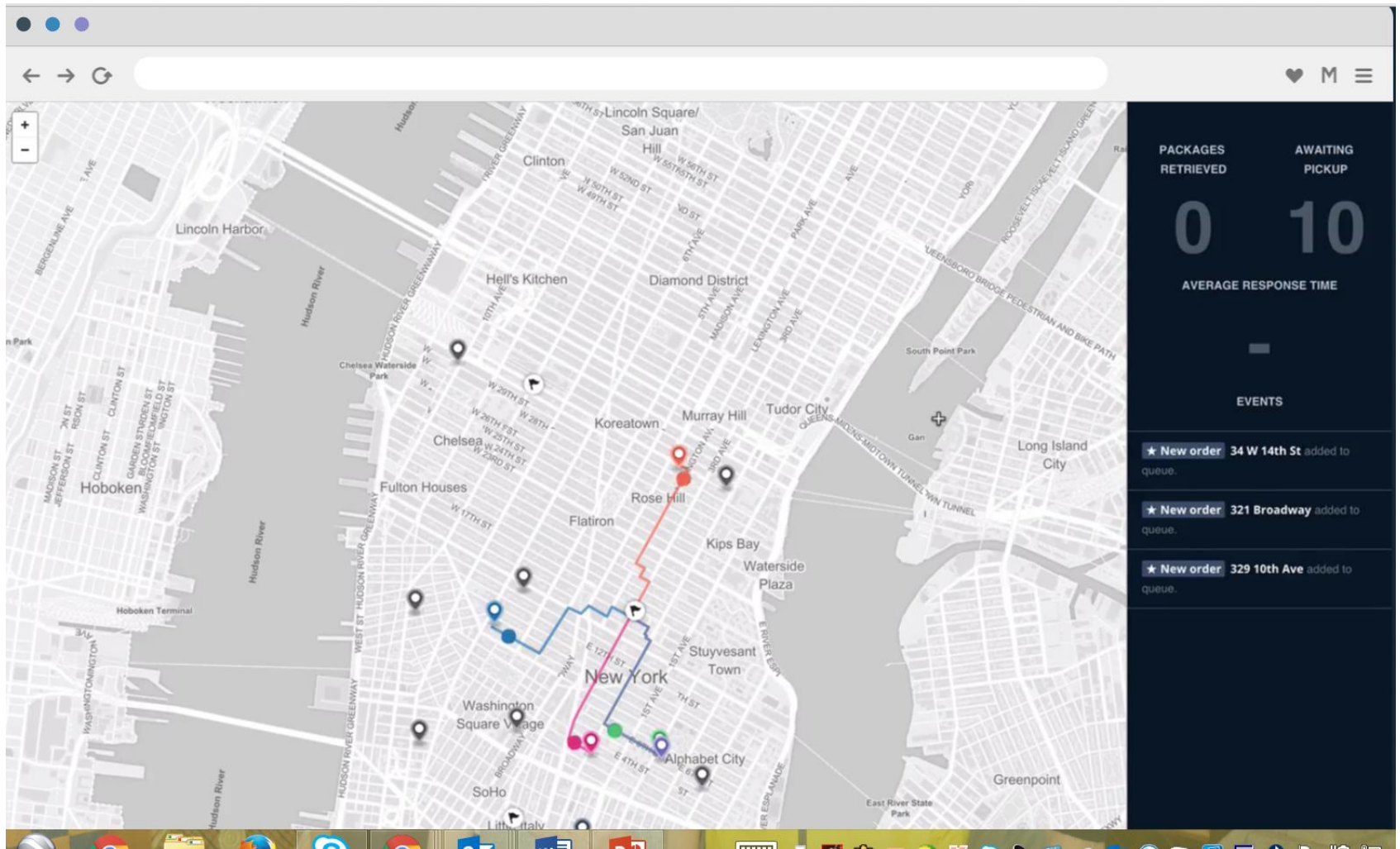
- **Push out the content we currently have / existing information by country on our maps.**
- **Demonstrate maps for fundraising**
- **Tell the thought leadership story through maps.**

## Appendix: Examples



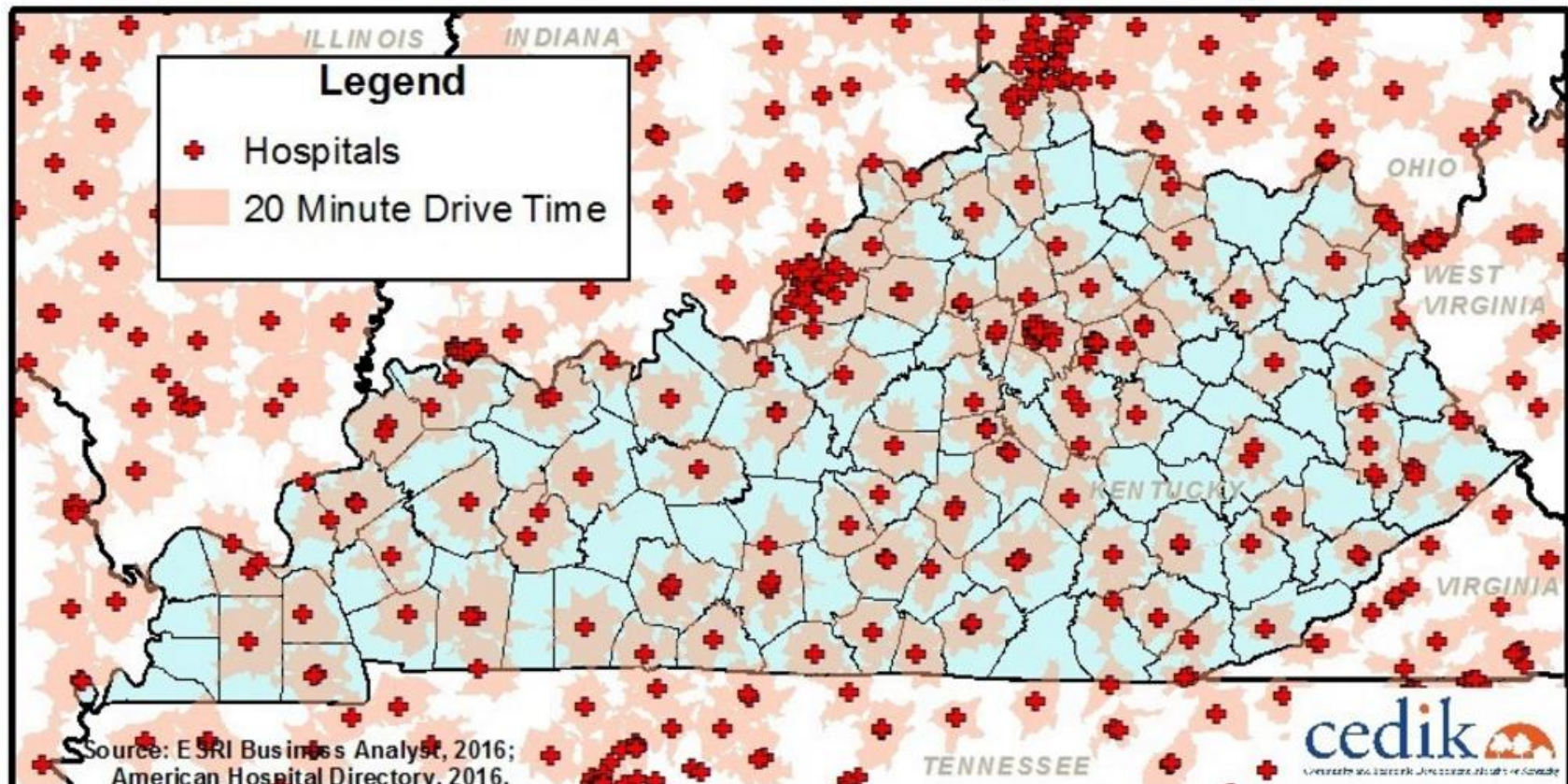


# Real time deliveries and distribution of medicines



## Access to health

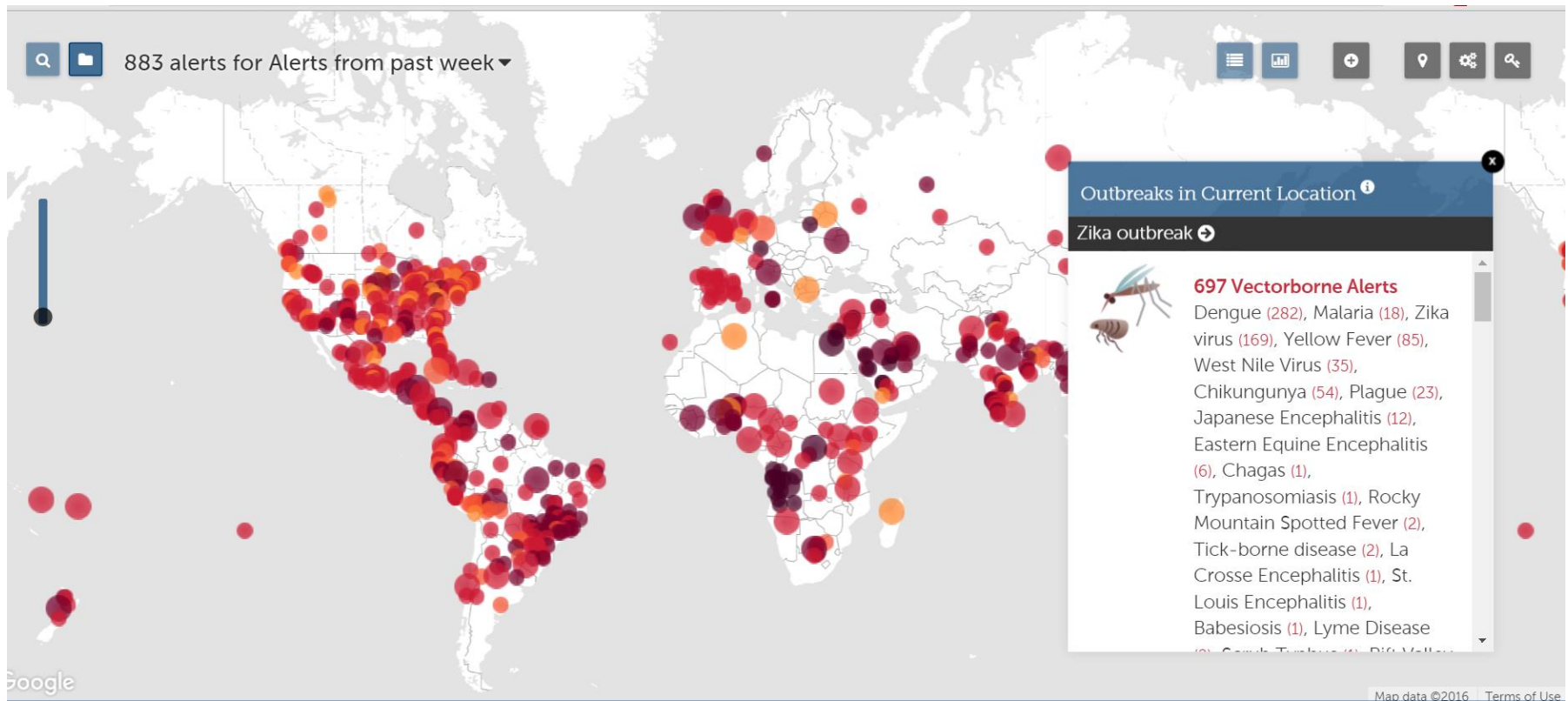
### Areas within a 20 Minute Drive of a General Medical and/or Surgical Hospital





# Real time alerts – public health threats

HealthMap, a team of researchers, epidemiologists and software developers at Boston Children's Hospital founded in 2006, is an established global leader in utilizing online informal sources for disease outbreak monitoring and real-time surveillance of emerging public health threats. This type of application is a great example of aggregating a particular type of news stories and connecting them to their geographic location. It allows for an easy overview of global health problems.



# Real time alerts - disasters

## Disasters

Find on the map the ongoing disasters that ReliefWeb is actively monitoring.

♥ Red markers indicate ongoing situations. 🚨 Orange markers indicate disaster alerts.





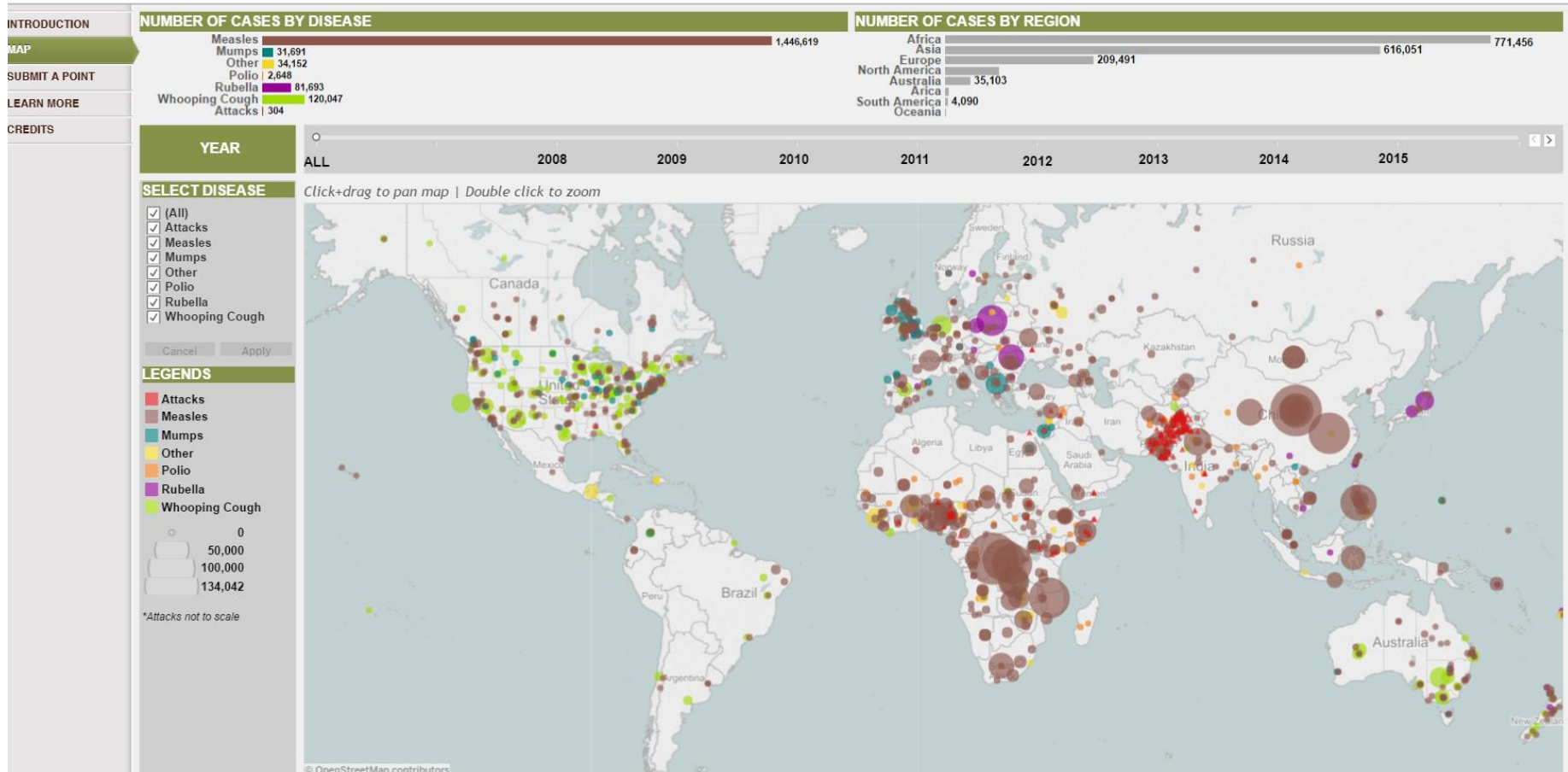
# Real time alerts – vaccine preventable outbreaks

This map utilizes feeds from the World Health Organization and others to provide the latest updates on diseases and outbreaks in the different regions of the world.

COUNCIL on  
FOREIGN  
RELATIONS

## Vaccine-Preventable Outbreaks

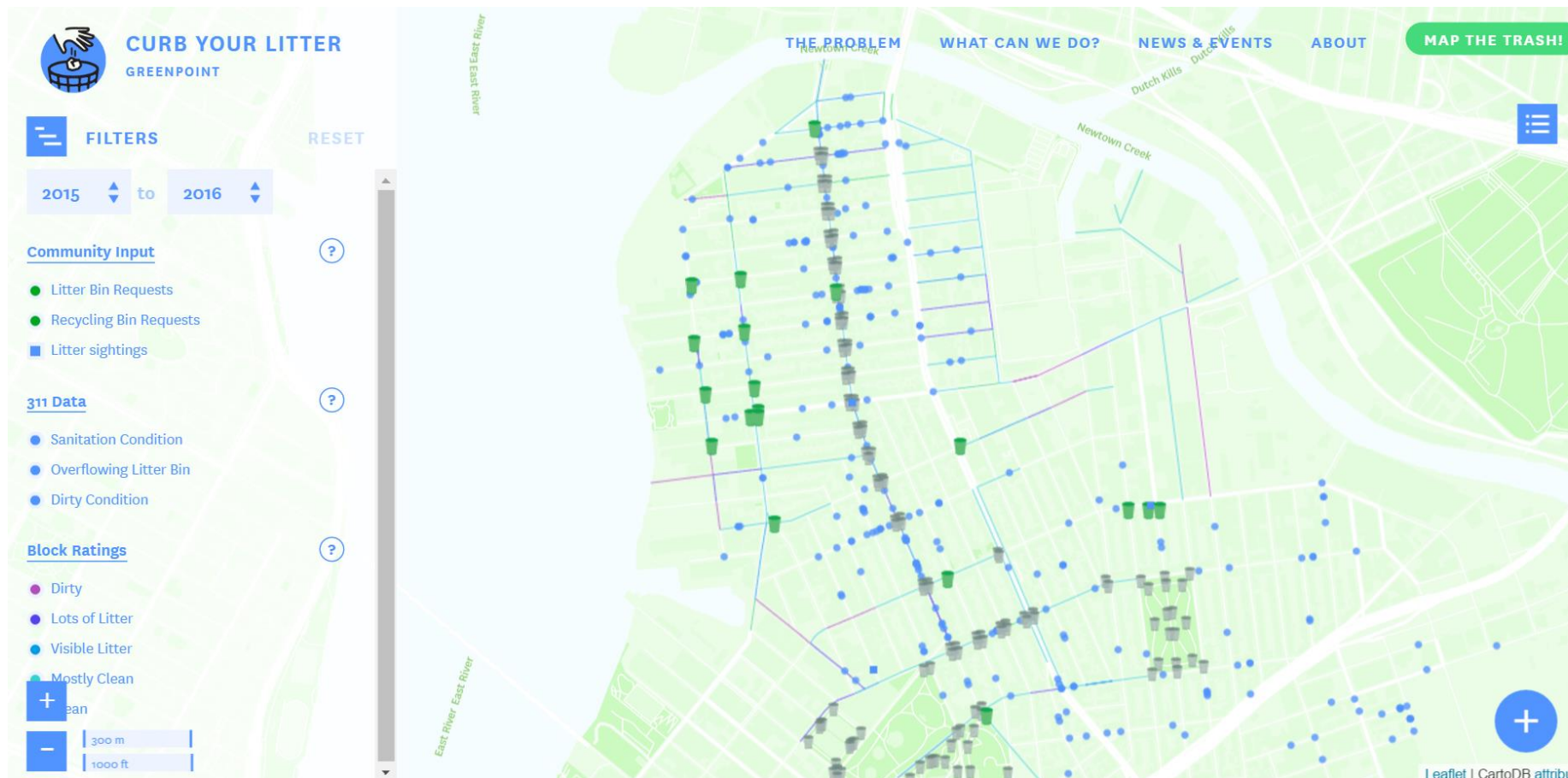
EMBED DOWNLOAD DATA





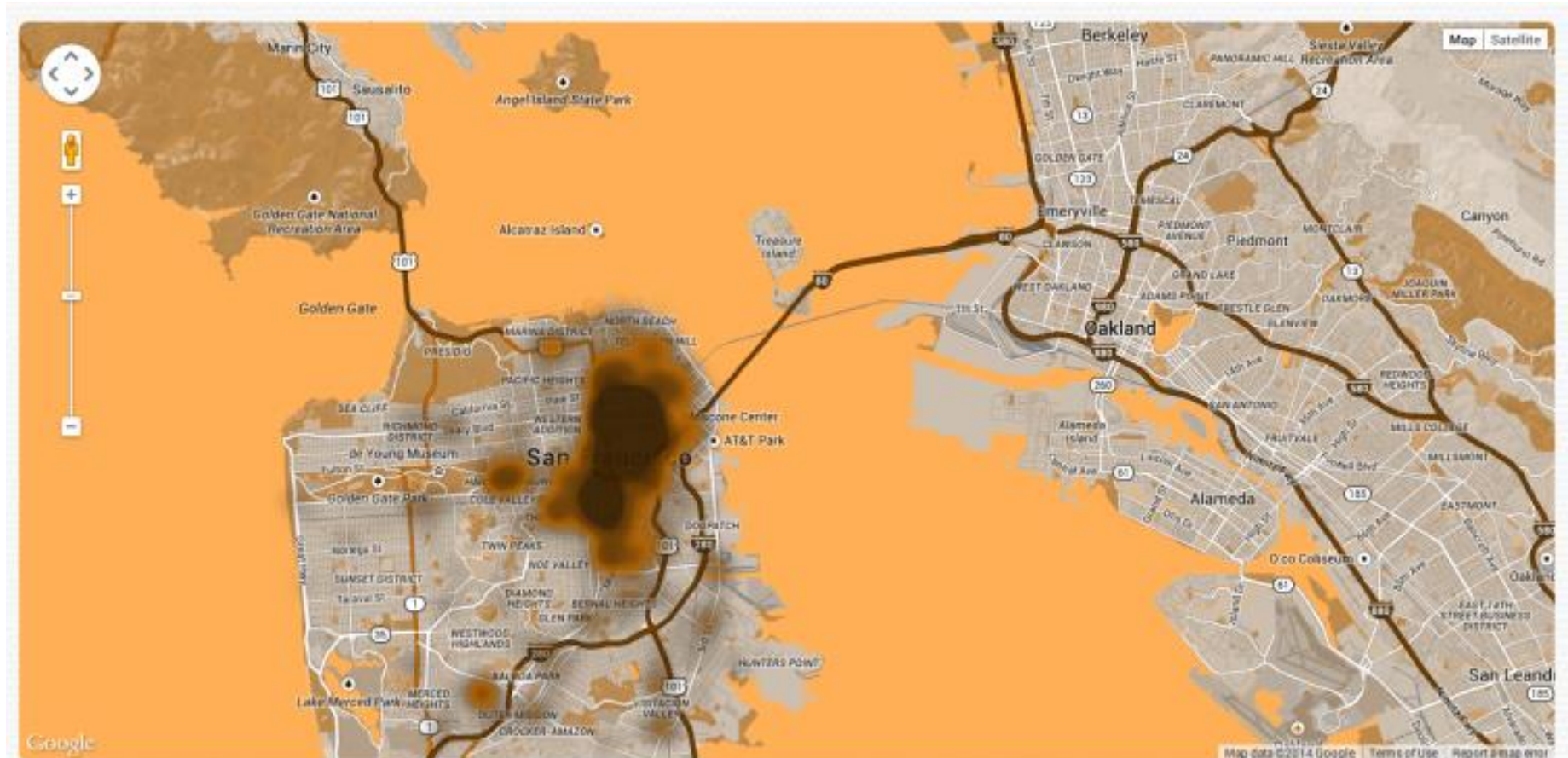
# Crowd Problem Solving

**Requests for garbage cans to reduce litter problem**



# Crowd Problem Solving

Map of incidents of human poop in public places reported to San Francisco's 311 program

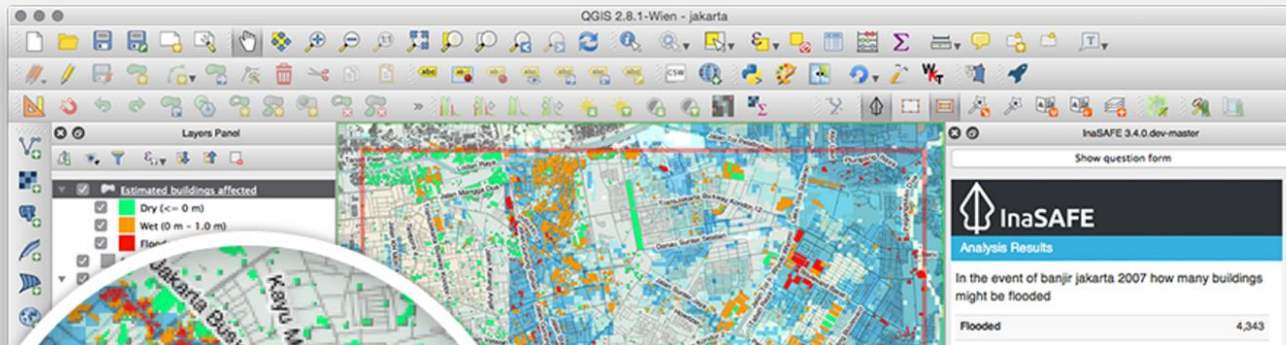


# Modeling / Predict and Prepare

Integrate base maps from OSM and currently available flood hazard information to develop impact scenarios within a municipality.

## InaSAFE

**InaSAFE** is free software that produces realistic natural hazard impact scenarios for better planning, preparedness and response activities. It provides a simple but rigorous way to combine data from scientists, local governments and communities to provide insights into the likely impacts of future disaster events.



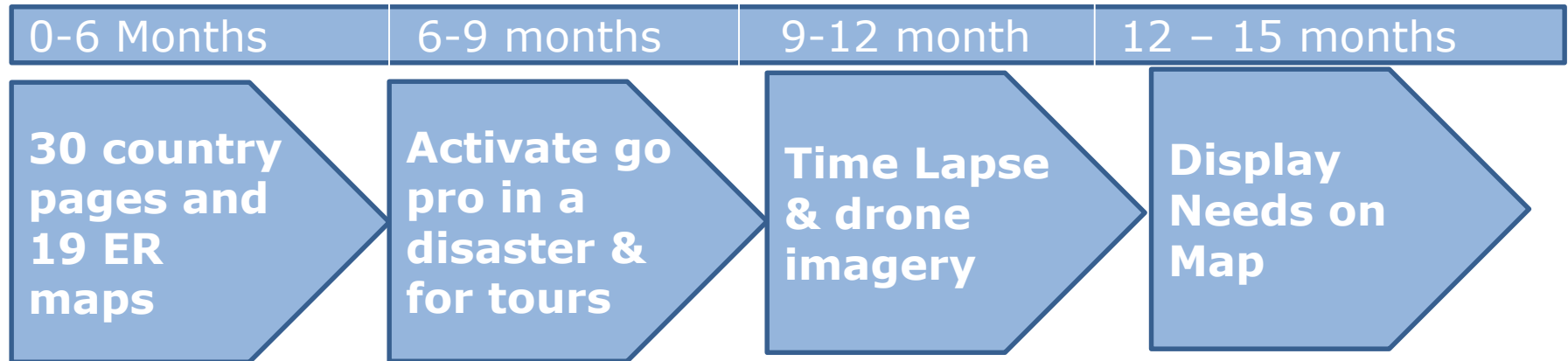


## **Appendix: Implementation Plan**



# Implementation Plan - Website

- *Goal – Inform and Engage*

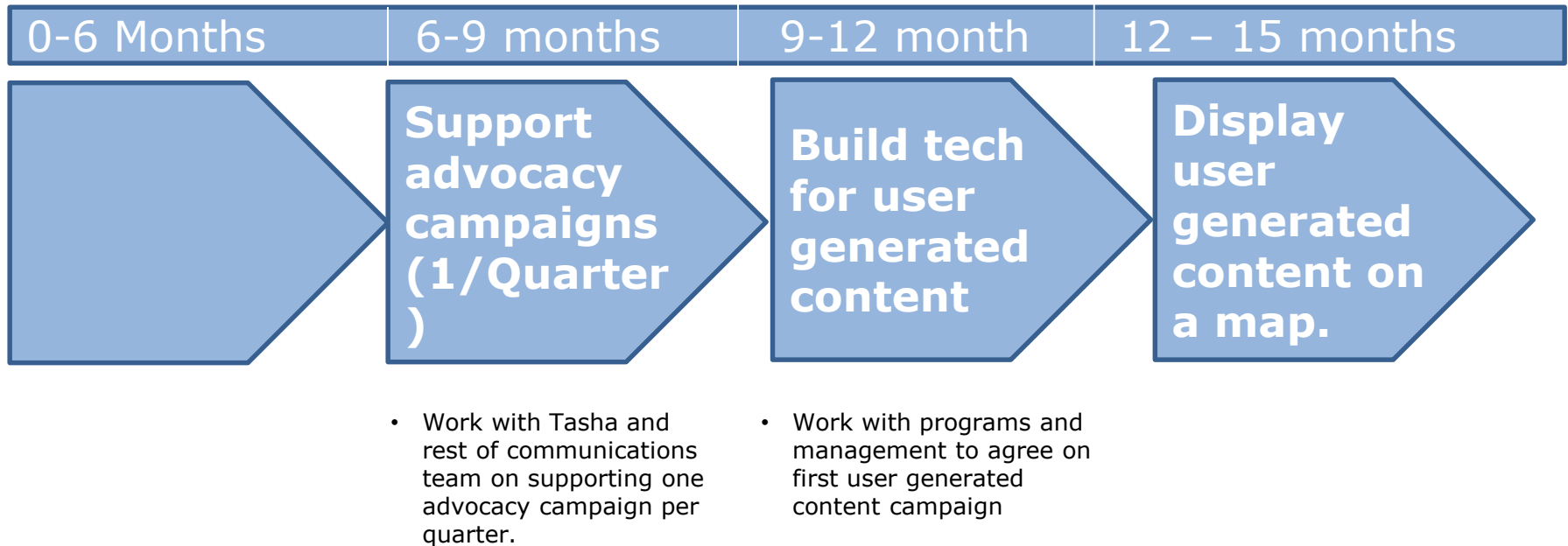


- Work with programs & m&e to create 50 maps so that each map communicates our strategy and measures of success.
  - Create comps
  - Develop the maps in mapbox.
  - Begin tracking and reporting on maps / measures of success.
- Work with multimedia:
    - Develop plan to create tours of our work in each country.
    - Develop plan to collect go pro imagery and activate.
    - Develop plan to collect drone imagery.
- Convert emergency pages on web site to show time lapse of how fast we deliver aid in an emergency and impact over time.
  - Begin collecting before imagery of our clinics via drone (to compare with post disaster imagery)
  - Evaluate new ideas for emergency: indoor map of hospitals and clinics around the world. Call for delivery of medicine by drone.
- Show needs on map expressed by those in need and being closed out by us.



# Implementation Plan - Social Media

- *Goal – Boost shares, likes and following*

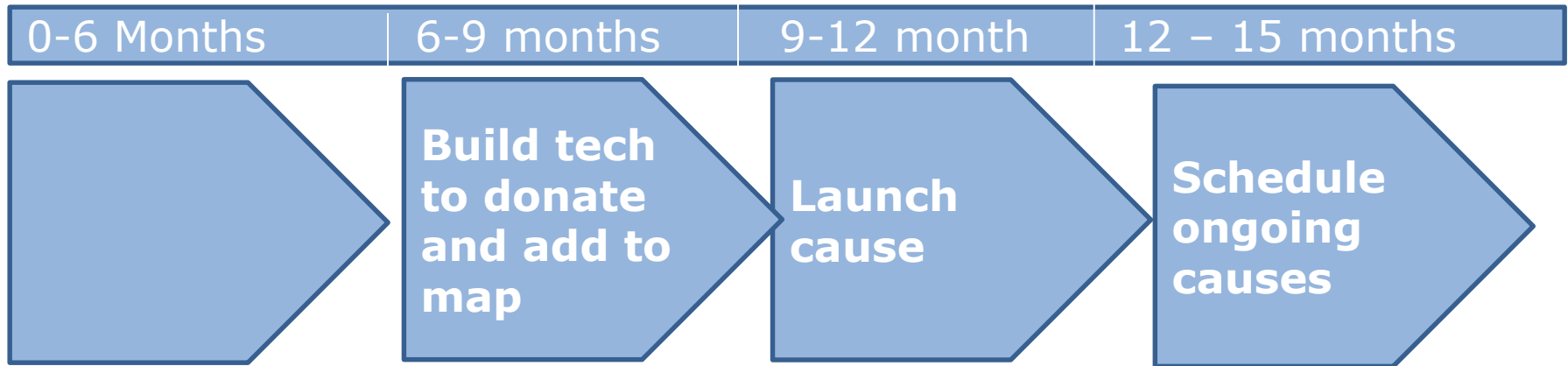






# Implementation Plan - Causes

- *Goal – Give millennials choice of cause and increase millennials share of donations*

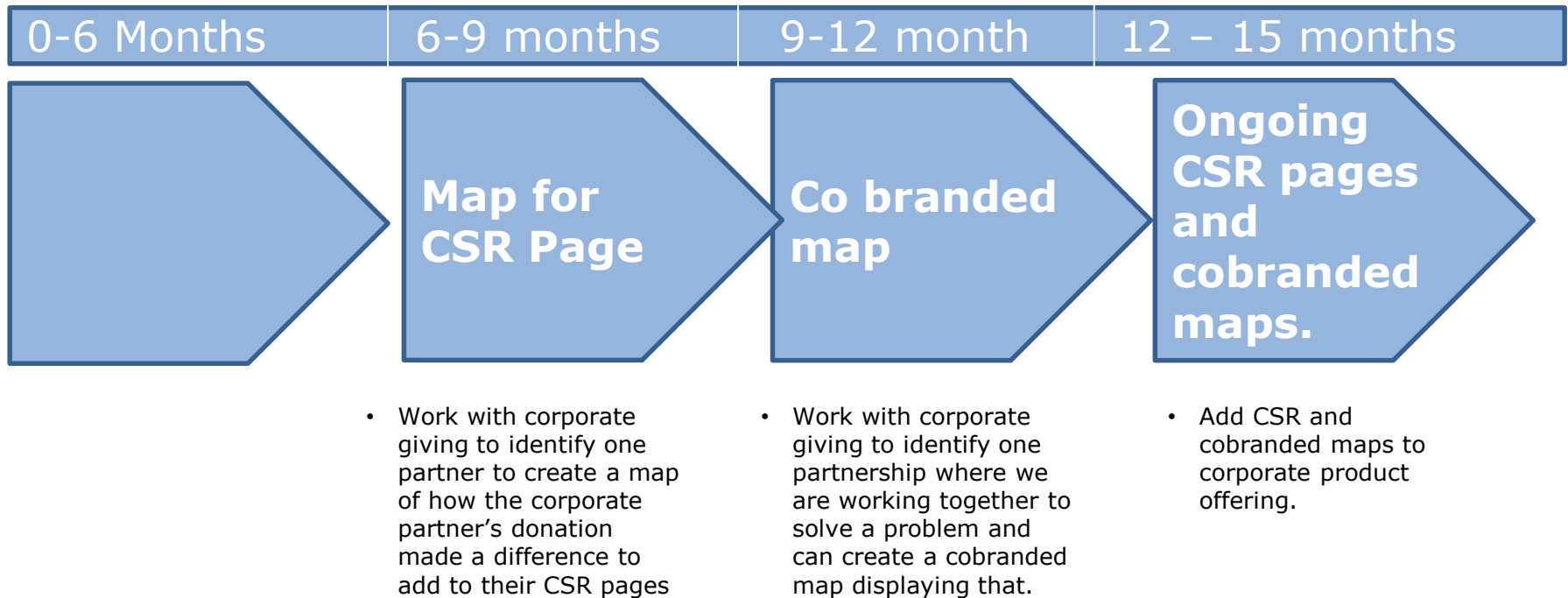


- Work with programs and management to agree on first cause campaign.
  - Fund a clinic?
  - Fund a shipment?
  - Sponsor a diabetic?
- Build tech to support donate and add to map



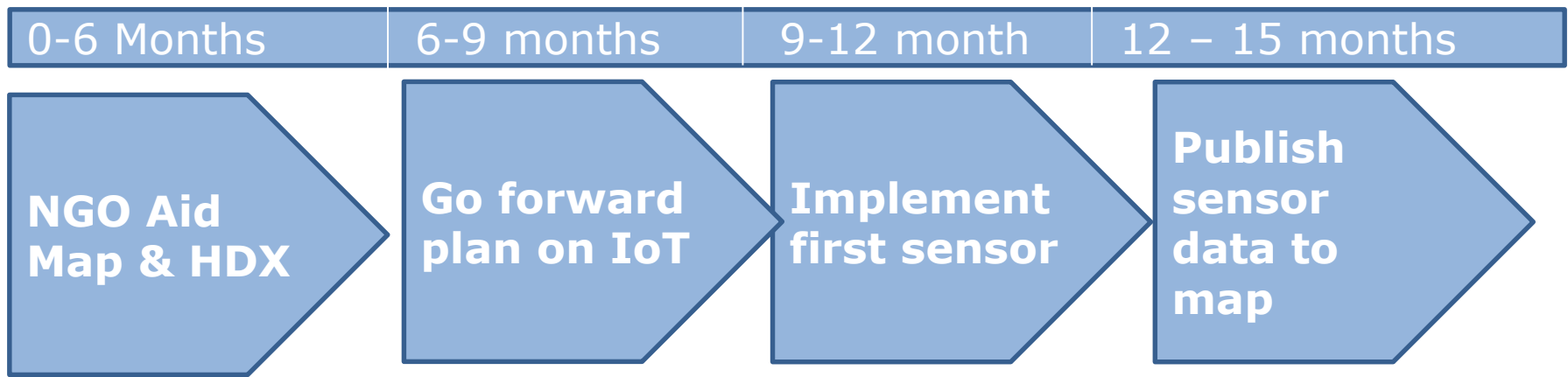
# Implementation Plan - Partnerships

- ***Goal –Add maps to partnership product offering.***



## Implementation Plan - Thought Leadership

- *Goal – Use sensors, own a layer of the map & create predictive models*



- Work with m&e to finalize what to share with NGO Aid & HDX and share
- Work with programs and m&e to decide on what layer of the map we want to own / contribute to worldwide conversation during an emergency.
- Work with programs and m&e to decide on how we can create predictive models from data we collect.
- Discuss and decide on how we can use sensors / IoT for monitoring.
- Gather data with sensor