

# Green Arrow Brief

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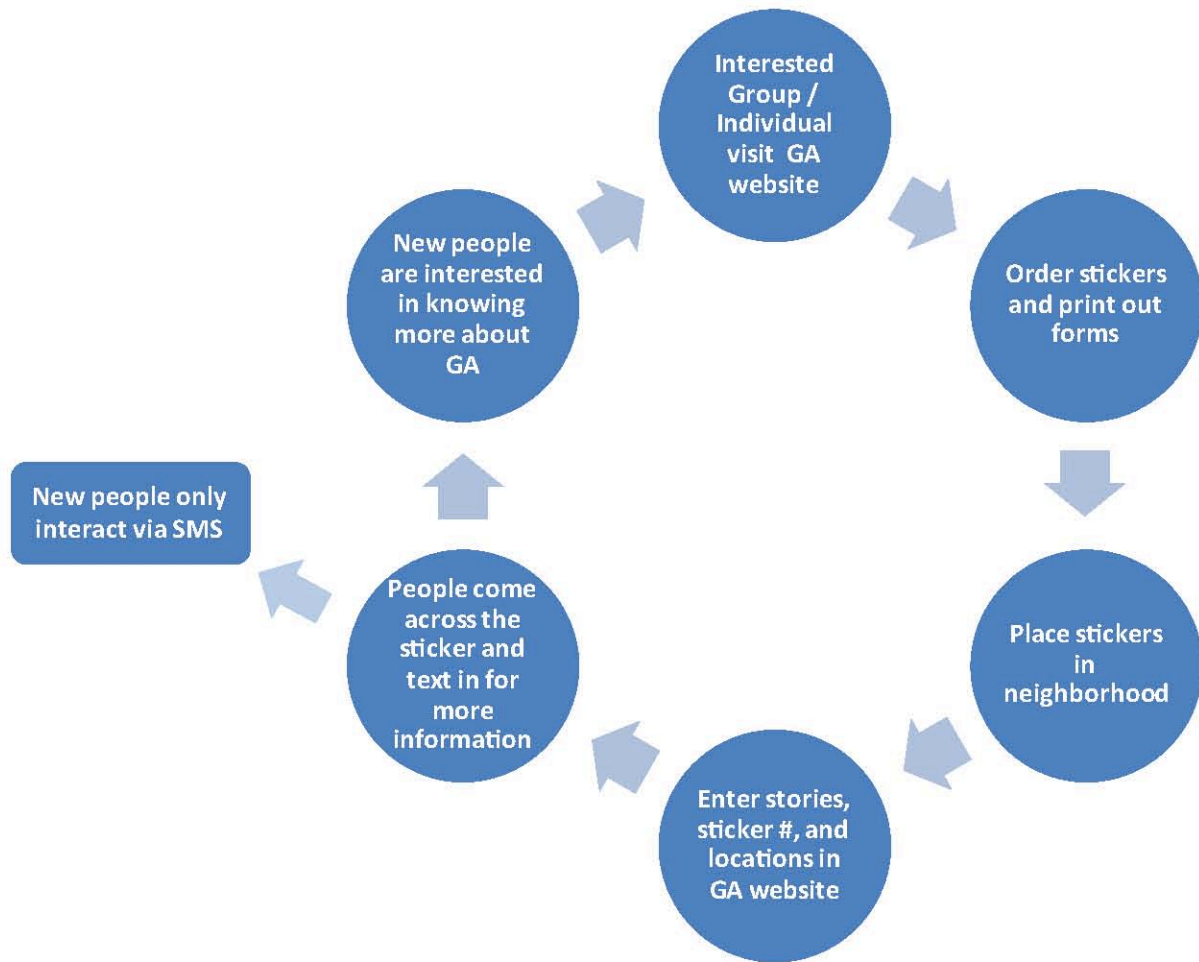
## Abstract/Summary

Eric Couper, Kathy Kurtak, Xiaohong Pan (We) developed the Green Arrow (GA) platform following a consultation with the New York City Department of Health and Mental Hygiene (DOHMH). The Department of Health and Mental Hygiene was interested in how crowd sourcing could be used to evaluate existing initiatives (such as Green Carts) or further their existing health initiatives. It became clear in our early brainstorming that it would be difficult for crowd sourcing to provide reliable data for the evaluation of existing initiatives. We decided that crowd sourcing could be much more engaging as a component of community health initiatives.

One of the most public and universal DOHMH efforts is their Take Care NYC initiative that encourages resident's to adopt healthier lifestyles. These healthy habits include increasing regular physical activity, eating more fruits and vegetables, drinking fewer sugary beverages, eating fewer bad fats (trans fats) and eating less salt. Many organisations have shown interest in furthering this effort in their community and have registered with the DOHMH as health partners. Up to this point most of the suggested ways of participating in the initiative targeted at abstract topics of health rather than daily activities. We saw an opportunity to create an activity that would engage members of these organisations in an active, conversation-starting way. Green Arrow is our response to that goal.

Green Arrow, at its core, is a sharing platform that blurs the lines between the physical and the digital, the stranger and the friend. It enables users to share their observations, answering one simple question: How does your physical environment influence your health? After a user places a GA sticker in her physical environment and shares her observation at [www.greenarrowmap.com](http://www.greenarrowmap.com), GA takes care of the rest. Other users are able to learn about those stickers by looking at the map online or by texting in from the sticker location.





## User Steps

1. Go to website: [www.greenarrowmap.com](http://www.greenarrowmap.com)
2. Order sticker on the website
3. Customize and print form (adjust the map to focus area)
4. Find an interesting example of your healthy lifestyle  
Think about what you do on a regular basis to stay healthy.  
Where do those things happen? (e.g., where you play soccer, buy fresh fruit, etc.)
5. Place sticker  
Place the sticker at the location of your healthy habit.  
(If the location is a store or business, ask if you can place the sticker on the window or door. It is a great way for the owner to advertise.)
6. Mark location and write down your story on the form
7. Go back to [www.greenarrowmap.com](http://www.greenarrowmap.com), and share your story at 'Submit a Green Arrow'.
8. Look at the stories and locations other people have entered and look for the Green Arrows in your neighborhood.



## Role of Crowd Sourcing

### Envisioned Role

We envisioned health-mapping as a crowd sourcing process in which citizens tag locations in their communities that play a role in their health. This could be the tree where someone stretches before a run or the store with the cheapest bananas. This could be the best view in a nearby park or the most tempting sweets shop on the block. No matter the place, these locations impact the health of the community. GA encourages citizens to share these locations and share their experiences. As a result, we each spend a little more time thinking about our health and our city. We hope GA will get health conscious community members to spark a city-wide discussion on the impact of the city on our health. The project moves discussions of health from words to reality.



### Strategy 1: Group Events

We initially planned this health mapping process as a group event held by organisations that have already committed to changing their own health habits and influencing the habits of their community. This format focuses on a target audience that is already interested in the information we are trying to discuss. It would also create more opportunities for discussion and information sharing to take place. This event could be used as a platform for organised discussions and analysis.

We originally anticipated that the DOHMH website would be the introduction point for Green Arrow. The participating organisation could then connect to our website and complete the necessary steps for hosting an event. They would receive a set of pre-numbered stickers, maps, and instructions to hand out to participants. With these materials, children and parents would spend the day exploring their healthy lifestyle. This information would be shared on a digital map that everyone can reference and discuss as a group. Individuals who came across the sticker later could send a text and get the health insight/information entered by the original person who posted it. This would allow for a broader sharing of information within the community.



This method relied on a high level of participation from DOHMH or any other organisation that would host the Green Arrow Platform. We then moved to a more independent system where groups could download forms directly from our website. The only thing we had to do was send them stickers. We then contacted a group called Get Healthy Harlem to help us pilot the system. Their board was very enthusiastic, but reluctant to recommend that their members act as test subjects for an untested system. They have limited resources in both time and money, so it was understandable that they would not want to promote an unproven activity.



## Strategy 2: Individual Participation

Without a health organisation to test pilot Green Arrow, we adjusted our proposal for individual users. The online platform created a much more flexible and sustainable interface. Although we were able to address most of the technical hurdles to allow individual users to access all the necessary information online, it became clear that the bigger hurdle involved motivation.

When initially approached, most of our volunteer participants were responsive to the concept and seemed willing to participate. However, without the enthusiasm and security found in a group activity, people rarely posted a sticker. Often, participants mentioned that they were reluctant to do something perceived as vandalism. To address this we provided a flyer that served the same (albeit more temporary) purpose as the sticker. This allows people to get permission to post them in stores. It was not a perfect solution since it created a new barrier: forcing people to interact with strangers. This method would have potential if people were familiar with Green Arrow (as they are with Yelp, Groupon, etc.).



## Inspiration from Yellow Arrow

Green Arrow was directly inspired by Yellow Arrow, [www.yellowarrow.net](http://www.yellowarrow.net). The self-described “global art project of local experiences” facilitates sharing with the same combination of stickers, SMS, and online maps. The project, now defunct, encouraged the sharing of general personal experiences, secrets, and stories, especially those tied to physical locations. In this way, Green Arrow’s focus on health-related stories distinguished it from Yellow Arrow.

While Yellow Arrow inspired us, we departed from the design in several ways. These include:

- **The design of our stickers.** The GA sticker intentionally explain the initiative and try to engage the general public. We hoped that the more explanatory design would increase the project’s accessibility. Yellow Arrow’s arrows included less information but embraced the simplicity and allure of secrecy.
- **Our group event approach.** Early on in GA’s development, we realized that the general public is not especially interested in the impact of their physical environment on their health. For this reason, we designed GA to be used by both groups and individuals. We developed the resources for community groups. That way groups interested in the topic can host a Green Arrow event in their neighborhoods.
- **The technology used.** To make the online mapping process as easy as possible, we designed Green Arrow on the popular Ushahidi platform. Coupling this with SMS Reception, the system reduces complications for the end user. Yellow Arrow used a different combination of technologies.



## What we implemented

Our project involved the creation of the Green Arrow sharing platform. Major components of the GA system include a GA website that opens a user-friendly interface to both project administrators and project participants, a customized Ushahidi platform which supports the website, and a SMS Reception Center that offers another channel to interact with project participants. More details about these components are illustrated in sections below.



## Website and Ushahidi platform

The Ushahidi platform is utilized in the GA project, which is embedded in the associated server spaces and linked to our [www.greenarrowmap.com](http://www.greenarrowmap.com) domain. Ushahidi provides a method for individuals to add information to a centralized map that can then be viewed by the public. The initial platform offered basic functions such as

- Allowing site administrators to manage reports submitted, modify categories of reports, and edit the webpage outlook in a very limited scale;
- Allowing general users to submit new reports and view reports in text and/or map;

However, these functions were not sufficient for our project needs, especially following our decision to make our system self-sustaining. We extensively altered the default Ushahidi instance. Customizations include removing the restriction of modification/editing abilities on forms, pictures and webpages, modifying the content and organization of navigation tabs, and customizing the background of the webpage.

With the upgraded platform, our webpage now contains

- New background with GA logo;
- New Home page with brief description of GA project;
- About Us page with detailed description of GA project;
- Getting Started page with detailed instructions and adjustable maps for both individuals and group participants;
- View Map page with visualized GA activities for different participation groups;
- Green Arrows page with detailed description of each GA activity;
- Submit a Green Arrow page where general users can submit their GA activities with associated arrow numbers.
- Site managers' access for additional maintaining and editing of GA activities and the GA website.

## SMS system

SMS Reception Center, a SMS text message management tool, was employed to expand Green Arrow's sharing capability. All stories submitted to the GA website were ported to SMS Reception Center. This porting allows people who come across a GA sticker to text in the arrow number and automatically receive a reply message describing the significance of the sticker.



## Strategies and Lessons for the future

Given the iterative nature of our work, we have learned a great deal and adjusted Green Arrow's design accordingly. Unfortunately, our evolving process limited the time we available for the deployment of our final product. For this reason, we have very little data to present at present. We can report that 10 Green Arrow stickers were posted in the past two weeks. Of which, three have been taken down. Additionally, we distributed 30 stickers to friends and colleagues. Of these, only 3 were posted. These figures, while discouraging, are enlightening. Our team now understands better the physical and psychological barriers to posting stickers around the city. Below we present more thoughts on the project's future and limitations.



### Stickers as a method of communication

The sticker is a great tool to link information associated with a specific place and person to a digital form. The graphic for the sticker is meant to simply communicate what information is available. The arrow clearly points at a location, while the target made of the active people and apple indicate the type of location.

The size, color and layout were adjusted to current printing standards that minimize cost. The initial design was 8" with the arrow extending beyond the target to stand out as something meant to be read and engaged rather than simply a graphic. The shape was changed to a circle, the radius reduced to 6" and the colors reduced to two to fit a cheaper, standard sticker. The compromise was not effective since the stickers were no longer large enough to be noticed. They either blended with other stickers posted nearby or too small to attract attention.

### Simple directions and graphics

As we began to explain our proposal and process to others, it became clear that we needed to show people what and how Green Arrow works. Our first tool was to develop images of possible scenarios where Green Arrow would be used. The second was to create forms and instruction sheets that showed the exact interface one would find on the website. That step then led us to simplify the website interface for clearer submission and navigation. This clarity was necessary to communicate with possible participants. However, the production and refinement of the website took too long, so we were not able to show Healthy Harlem a complete product when they were making their decision.

### Timeframe for Participation

The mapping process is better suited to good weather. By the time we had all our materials and system in place, it was already cold. People were less willing to map things that would force them to walk further from their destination or stay outside longer so that they could place the sticker. Our Green Arrow placement count very likely would have been higher at a different time of year. We also discovered that most community health events are held during warmer months. When we looked for events to partner with, we found many potential ones that had just been held.

### Group v. Individual

It became clear from our experiences the Green Arrow format holds more potential as a group event than as an individual activity. Our individual participants were responsive to the concept, but rarely posted a sticker on there own. The groups we contacted were very enthusiastic, but reluctant to recommend that their members act as test subjects for an untested system. Both methods have potential if people were familiar with Green Arrow (ie. yelp, etc.), but our feeling is that you still need a critical mass of people to get the ball rolling.





# Mapping your healthy life...

SUBMIT A GREEN ARROW

ABOUT GA

HOME

GETTING STARTED

VIEW MAP

GREEN ARROWS

FILTERS

GREEN ARROWS

NEWS

PICTURES

VIDEO

ALL

CATEGORY FILTER [HIDE]

ALL CATEGORIES

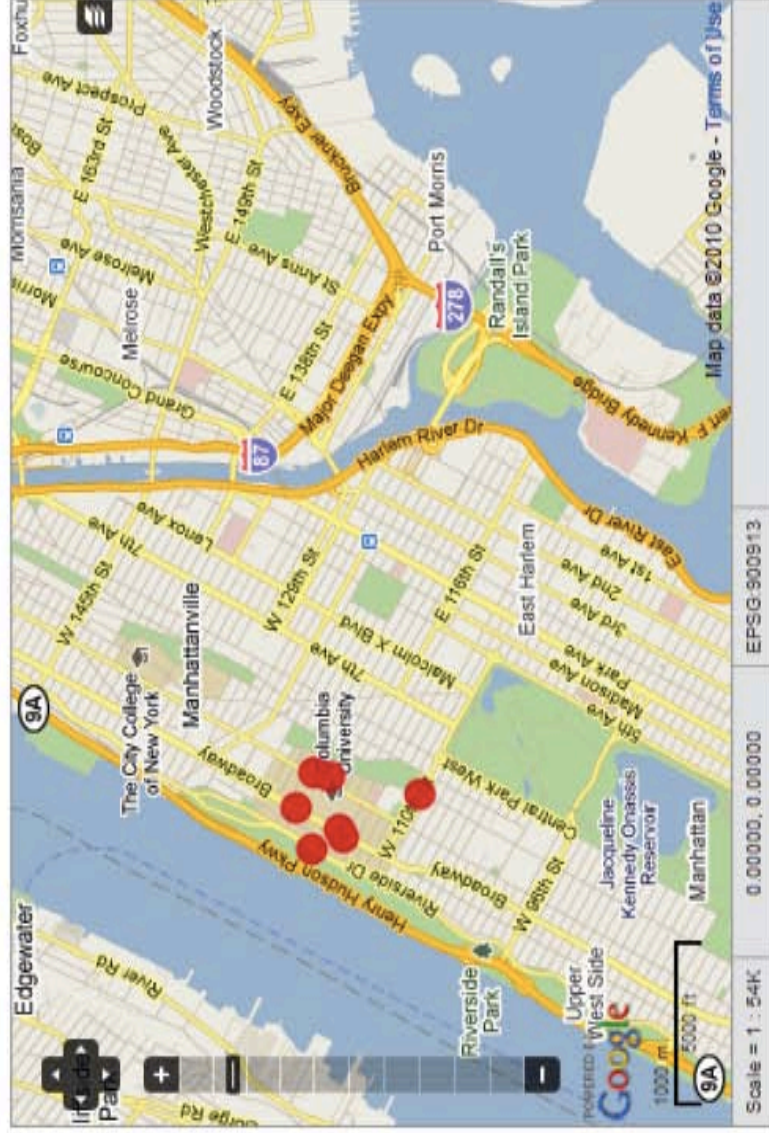
GET HEALTHY HARLEM

COLUMBIA COMMUNITY

SAMPLE GREEN ARROWS

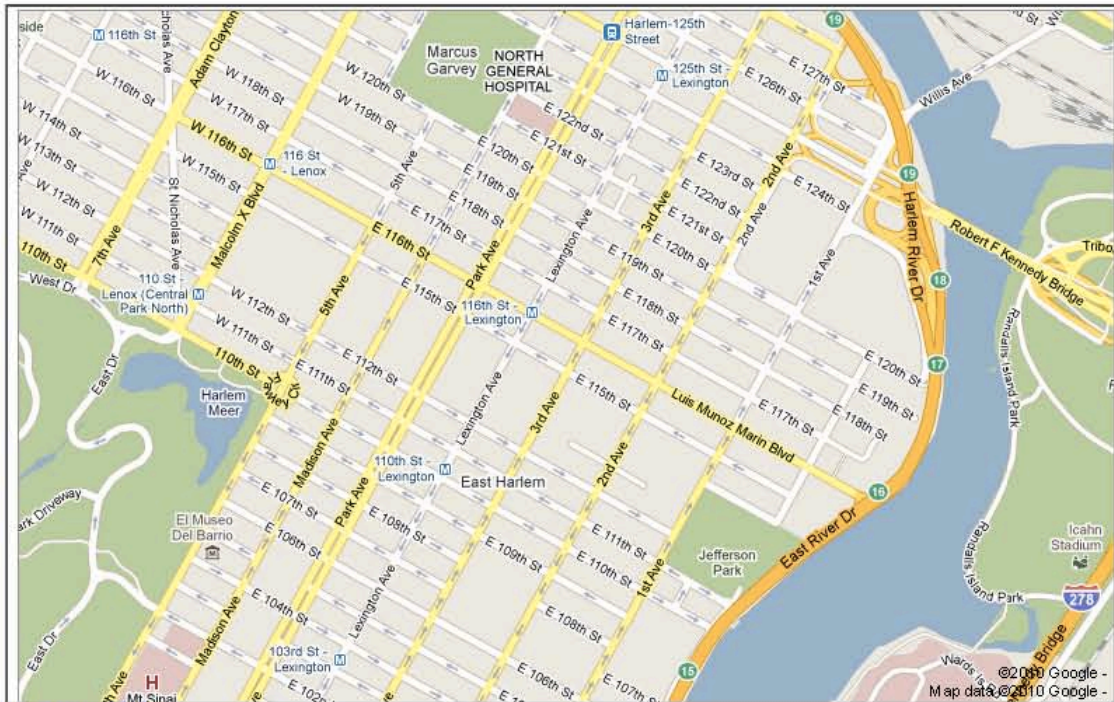
## How to report a Green Arrow

1. By filling this form



# Welcome to Green Arrow!

Follow these easy steps to share your stories.



[View Larger Map](#)

**Step 1: get a sticker and this form** (adjust the map to your neighborhood and print this page)

**Step 2: find an interesting example of your healthy lifestyle**

Think about what you do on a regular basis to stay healthy.  
Where do those things happen? (e.g., where you play soccer, buy fresh fruit, etc.)  
Go to that location!

**Step 3: place sticker**

Place the sticker at the location of your healthy habit.  
(If the location is a store or business, ask if you can place the sticker on the window or door. It is a great way for the owner to advertise.)

**Step 4: mark location on map above**

**Step 5: record your info**

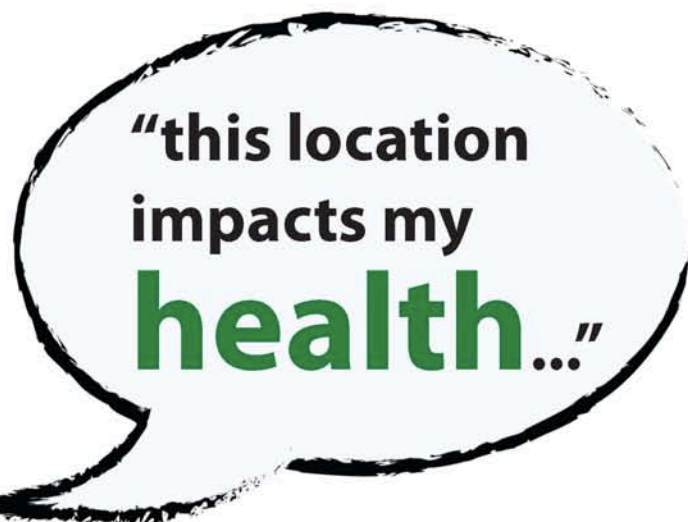
a. What's the arrow number? \_\_\_\_\_

b. What do you want to share about that place?

\_\_\_\_\_

**Step 6: find a computer, go to <http://www.greenarrowmap.com/ushahidi/reports/submit>, and share your story**





**A fellow New Yorker says:**

# **does it affect yours?**

**text the # above to find out  
or go to**

**[www.greenarrowmap.com](http://www.greenarrowmap.com)**

**Green Arrow allows local residents to map specific places where they have found healthy food, fun forms of exercise, or little tricks to stay healthy.**