
Spread the Word, Not the Flu:

The Flu Near You Outreach Toolkit

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The Flu Near You Outreach Toolkit

This toolkit will provide you with information to assist in developing and implementing a Flu Near You outreach campaign at the university and even nonprofit level. The Flu Near You outreach staff at the Louisiana State University Health Sciences Center - New Orleans (LSUHSC) School of Public Health developed this toolkit to provide guidance and to share lessons learned during two years of conducting outreach in New Orleans. You will learn about best practices from both the LSUHSC and University of California, Berkeley (UCB) teams that you can incorporate into your own outreach plan. This toolkit is designed for a beginner audience, although some readers with an intermediate level of Flu Near You knowledge will find parts of the toolkit useful.

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Introduction

Flu Near You Overview

Flu Near You (FNY) is **participatory surveillance** system for tracking symptoms of influenza-like illness (ILI) through a mobile app and website in the United States and Canada. Registered individuals voluntarily report symptoms in a brief weekly survey, and the system collects and publishes the data on the website and mobile app. FNY uses both mapping to display the weekly results, as well as descriptive statistics to demonstrate areal outcomes related to symptoms reported. Users are also able to view number of people reporting and the percentage with ILI statewide, find local vaccination sites, and access the most recent news and publications on influenza. FNY shares participant-reported, real-time ILI data with the public to increase awareness and insights about ILI activity. Over time and with increased participations, FNY hopes to generate earlier signals of influenza activities than traditional flu-reporting surveillance systems are able to; nonetheless, FNY and traditional reporting systems are more valid and effective when used in tandem.¹

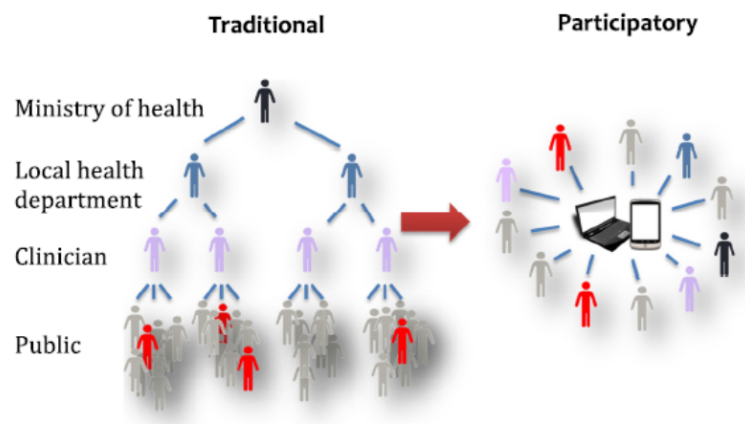
FNY was created in 2011 through a collaboration between the American Public Health Association (APHA), HealthMap of Boston Children's Hospital, and the Skoll Global Threats Fund. FNY is housed within Skoll Global Threats Fund, whose mission is to confront global threats imperiling humanity by seeking solutions, strengthening alliances, and spurring actions needed to safeguard the future. After the H1N1 pandemic, influenza was considered a global threat, and FNY was developed as an innovative strategy to use participatory surveillance for tackling outbreaks of infectious disease before they begin.² Preliminary data show that FNY is a viable ILI tracking tool with rates comparable to the CDC's and Google Flu Trends. Additionally, FNY has the benefits of speed, sensitivity, and scalability of users. However, a broader participant base is needed to improve its validity, and due to self-reported symptoms, FNY has low specificity. For more information, see *Appendix A* for the LSUH-SC School of Public Health research posters.



Participatory Surveillance in Disease Tracking

According to the WHO,¹² surveillance is “the ongoing, systematic collection, analysis, and interpretation of health data essential to planning, implementation and evaluation of public health practice,” closely integrated with the timely feedback of these data to those who need to know. We need public health surveillance in order to monitor trends in and identify epidemics of infectious disease and/or health events, and to support the planning, implementation and evaluation of health interventions. Sentinel surveillance involves high-quality data about a particular disease, obtained from selected reporting sites, such as hospitals, laboratories, and physicians’ offices.¹³ They provide weekly data on both ILI and laboratory confirmed cases of influenza, which is used to signal trends, identify outbreaks, and monitor the burden of disease in a community. ILI is defined as an illness characterized by cough and/or cold symptoms and a fever of 100° F or greater in the absence of a known cause. While not every case of ILI is influenza, it is a good proxy measure for flu activity.

Sentinel surveillance systems are limited because it is a volunteer based system where only selected sites are reporting, the time delay of reporting in general, and because we don’t know the proportion of ill individuals who seek medical care after the onset of symptoms. Real-time surveillance is necessary for identifying public health emergencies, optimizing allocation of resources to respond to them, and devising mitigation and containment measures.



FNY is only one form of participatory surveillance used for disease tracking at the community level. [FluTracking.net](#) is an online flu surveillance system launched in Australia in 2006, in which the presence of both a cough and fever approximate the presence of ILI. Research shows that [FluTracking.net](#) has been accurate and sensitive, as well as timely: it cap-

tured the H1N1 pandemic one week before the sentinel physician network. Data from the website has also been used to explore and increase vaccine coverage. [Influenzanet](#) began in 2005 as a collaboration among 10 European countries and has led to a standardized participatory system, allowing for comparability between countries. It is also accurate and sensitive, as well as timely, detecting the H1N1 pandemic in Italy one week earlier than the sentinel physician network.



Flu Near You Challenges in Recruitment

Although FNY participation rates are steadily growing in the US, it still faces challenges to becoming a widespread surveillance tool and reaching full effectiveness. When developing an outreach plan, it is important to identify any barriers to adoption--there will be guidance on how to plan and conduct formative evaluation in the *Creating a Timeline* (p12) and *Monitoring and Evaluation* (p13) sections of this toolkit; here we will discuss cultural barriers in the larger context of the United States.

In Europe and Australia, where influenza participatory surveillance systems have had demonstrated success, the healthcare systems are universal or single-payer, in which all citizens receive social and health services without undue financial hardship. While there are many versions of a universal health coverage system, they all “demonstrate a government’s commitment to improve the wellbeing of all its citizens.”⁴ This is often the case in nations that emphasize social equity, in which socialist rather than capitalist ideology pervades cultural values. In the US, the traditional and dominant ideology is individualistic, as reflected in a market-based healthcare system, creating an *every man for himself* orientation for many.⁵ Thus, when conducting formative evaluation on Flu Near You, we found that a frequent response among our audience was “How does this benefit me?” Our messaging needed to per-

suade individuals to participate in a community health program that currently has no immediate, tangible benefit to the individual. However, females are the majority participants in FNY, and those who report for their households are more likely to be reliable participants,¹ possibly indicating a more overtly altruistic inclination among these populations.

Although the US is unique among developed nations regarding universal healthcare coverage, we share a common disease burden; in developed nations chronic diseases are the greater threat, versus infectious diseases in undeveloped nations. This further confounds the challenge of creating a need for participation in FNY. If the public does not perceive influenza as a threat, they are less likely to engage in this form of participatory surveillance. Nonetheless, the majority of FNY users have been between the ages of 40 - 70, and reports are also high among participants less than 13 years of age, in which an older householder is reporting for underage house members.¹ This seemingly shows that there is more perceived threat of influenza for the older populations as well as children. This assumption is reflected in the data; according to a report released by the CDC, influenza was the ninth leading cause of death in 2013, and the likelihood of dying from flu-related complications was much greater among those over 40 and under 1 years of age⁶. In fact those most at risk for flu-related complications are seniors, very young children, pregnant women, and immunocompromised.⁷

Interestingly, there is sharp drop off in FNY participation for those 70 years of or older. This is probably because of a gap in technology usage. According to the Pew Research Center, only 27% of adults over age 65 have smartphones, compared with 85% of adults under 30 (young adults) and 80% of those ages 30 - 49. However, the number of seniors using smartphones is growing, and participation may also increase among that age group. In addition to owning smartphones, young adults are also significantly more likely than other age groups to use their phones for accessing services and content, and 77% of young adults have used their phones in the past year to seek information about a health condition. This suggests that a shift in their attitudes about flu may result in increased FNY participation.⁸



Developing a Flu Near You Outreach Strategy

Behavioral Change Models

In order to address FNY recruitment challenges, it is helpful to use an evidence-based conceptual framework designed to explain both change and maintenance of health-related behaviors, and as a guiding framework for health behavior interventions. We will discuss two behavior change theories: the Health Belief Model is useful for understanding and overcoming barriers to FNY participation, and the Social Marketing theory is an excellent framework for promoting desired voluntary behaviors among members of a target audience.

The **Health Belief Model** (HBM) was initially developed to explain the widespread failure of people to participate in public health programs to prevent and detect disease.⁹ Its primary constructs attempt to explain why people do or do not prevent or screen for disease. Below are the HBM constructs and how their constructs, as outlined by Glanz et al⁹:

HBM Construct	Definition	Application
Perceived Susceptibility	Belief about the likelihood of getting a disease must exist for a person to attempt prevention	Define population at risk, risk levels. Personalize the risk based on a person's characteristics or behaviors. Reconcile beliefs with individual's actual risk.
Perceived Severity	Belief about the seriousness of contracting disease, including both clinical and social consequences.	Specify consequences of risks and conditions.
Perceived Threat	The combination of susceptibility and severity (both the likelihood and seriousness of contracting a disease).	
Perceived Benefits	Belief in the benefits of the available options for reducing the threat.	Define action to take: how, where, when; clarify the positive effects to be expected.
Perceived Barriers	Belief about the negative aspects of a particular health action that may act as impediments to undertaking recommended behaviors.	Identify and reduce perceived barriers through reassurance, correction of misinformation, incentives, assistance.

HBM Construct	Definition	Application
Cues to Action	Cues that can trigger actions; strategies to achieve readiness.	Provide how-to information, promote awareness, use appropriate reminder systems
Self-Efficacy	“The conviction that one can successfully execute the behavior required to produce the outcomes”	Provide training and guidance in performing recommended action. Use progressive goal setting. Give verbal reinforcement. Demonstrate desired behaviors. Reduce anxiety.
Other Variables (Modifying factors)	Diverse demographic, sociopsychological, and structural variables may influence perceptions and indirectly health-related behaviors.	

The HBM theoretical framework can be used to identify motives for action, message strategies, and target audiences within the **social marketing** theory. Social marketing is defined by Andreasen¹¹ as “the application of commercial marketing technologies to the analysis, planning, execution, and evaluation of programs designed to influence the voluntary behavior of target audiences in order to improve their personal welfare and that of their society”. The five basic principles of social marketing, outlined below, have made it an effective health promotion strategy⁹.

1. **Focusing on Behavior** - Social marketing’s objective is to influence behavior. In public health, the use of the product is of much greater importance than in commercial marketing (in which the objective is sales). Success is dependent on the consumer’s action, or disease prevention, so the focus on behavior is inextricably linked to consumer benefit.
2. **Prioritizing Consumer Benefits** - The locus of benefit prioritizes the consumer - the audience of society at large - in the form of better health or a cleaner and more stable environment; whereas commercial marketing benefits the organization offering a product.
3. **Maintaining a Market Perspective** - The “social market” revolves around consumer needs and decisions are made to satisfy those needs; the market is dependent on communicating information about available products (value, utility, benefits,

accessibility, etc.); marketing communication acknowledges the dynamic environment in which products are being promoted and adapts to remain competitive. Market communication can be focused upstream, addressing structural change, or downstream, targeting individual change.

4. Determine Marketing Mix with the Four P's - Market environments have multiple aspects, a combination of which are considered in social marketing approaches: the "Four P's" are Product, Price, Place, and Promotion. In public health, products are the benefits consumers receive from behavior change, and social marketers research conduct research to understand how to make the behavior change desirable. Price is perceived barriers to using the product. Place is where the consumer is reached, channels of information dissemination, or where the product is accessed. Promotion is the message content, forms of communication, and promotional strategies.

5. Using Audience Segmentation - Marketing strategies are customized to different subgroups according to the identified benefits they value or the message they respond to best.



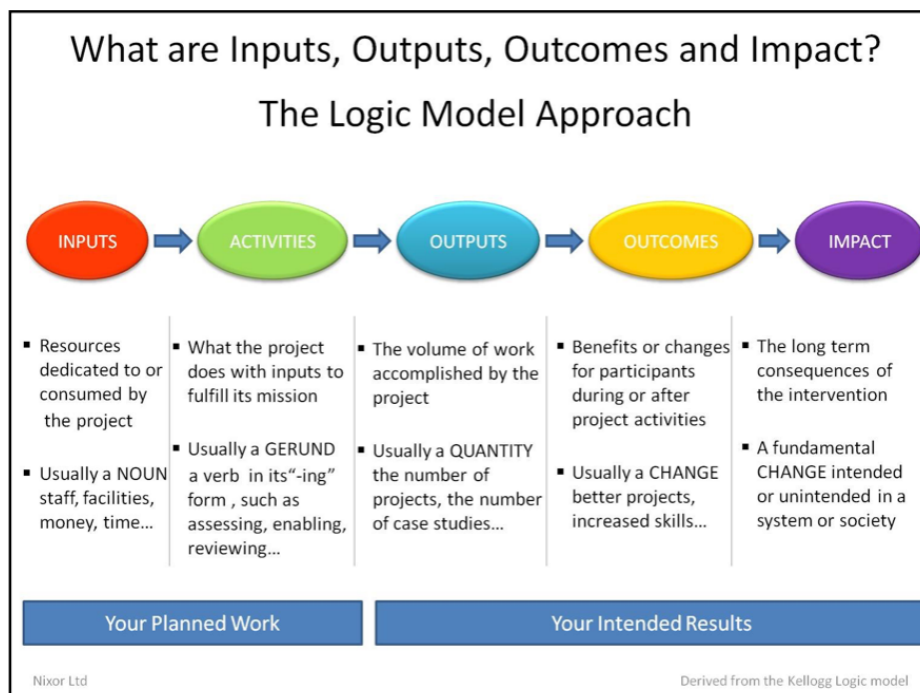
A Social Marketing campaign should be comprehensive, using multiple communication techniques at multiple levels to reach the target audience(s). We will discuss the Social Marketing and HBM constructs in their specific application to FNY in the *Outreach Campaign Best Practices: LSUHSC School of Public Health* section. See the *Additional Resources* section for more information on these behavior change models.

Project Planning

The recommended duration of an FNY outreach project period is late summer through the following spring. This allows enough time to conduct formative evaluation and create a detailed project plan before flu season, when the outreach campaign and participation contest would ideally occur. Three main phases are encouraged: (i) August - September, planning and formative evaluation, (ii) October - March, contest and outreach, and (iii) April, interpret and report findings. However, the timeline for your project plan should be detailed, including **SMART objectives** (Specific, Measurable, Achievable, Relevant, Time-bound) and the chronological activities needed to achieve your objectives. These components of a timeline will help to steer your course, facilitate action, and provide you with a work plan to ensure accountability to meeting your goals.

Criteria	Description Questions
Specific	Is there a description of a precise behavior and the situation it will be performed in? Is it concrete, detailed, focused and defined?
Measurable	Can the performance of the objective be observed and measured?
Achievable	With a reasonable amount of effort and application can the objective be achieved? Are you attempting too much?
Relevant	Is the objective important or worthwhile to the learner or stakeholder? Is it possible to achieve this objective?
Time-bound	Is there a time limit, rate number, percentage or frequency clearly stated? When will this objective be accomplished?

Developing a timeline is only one part of the planning phase of an FNY outreach project. Formative evaluation usually “takes place before or during a project’s implementation with the aim of improving the project’s design and performance”¹⁰. It consists of project planning strategies such as developing SMART objectives and creating a **Logic Model**, which essentially summarizes the project’s resources, planned activities, and desired change in a flow chart. This allows you to visualize the project in its entirety and demonstrate the efficacy of reaching your intended goals with resources, planned inputs, and intended evaluation measures (see below).



See *Additional Resources* for more information on project planning and formative evaluation, as well as *Outreach Campaign Best Practices: LSUHSC School of Public Health* for a sample work plan template from the LSUHSC School of Public Health’s outreach campaign, including SMART objectives.

Monitoring & Evaluation

Planning a feasible and successful project also hinges on your awareness of the community or audience’s needs, perceptions, attitudes, beliefs, knowledge, and behaviors. Conducting a **needs assessment** allows you to better understand the gap between the target population’s current and desired behavior in order to appropriately develop your objectives and implement your plan. Assessment techniques can also be used to gauge the audience’s responses to FNY and formulate a marketing strategy for making FNY an appealing product to them. A variety of evaluation methods, including but not limited to focus groups, surveys, and interviews are helpful for better understanding your target audience’s point of view and preferences. However, key points from the focus groups held at the LSUHSC SPH are outlined in the *Outreach Campaign Best Practices: LSUHSC School of Public Health* section for your reference - these findings may be useful to your FNY outreach campaign. Additional infor-

mation justifying the need for your project can be found in peer-reviewed research and in demographics resources. See *Additional Resources* for both national data (or search local health departments, etc.) and needs assessment sources.

After the planning phase, evaluation should continue during the project implementation. The FNY staff at Skoll require a monthly progress report detailing your work, or activities and outputs. This report tracks developments such as the number of people reached, types of outreach, and unique events. Your outcomes and impact can be evaluated based on new users, retention, and attrition - data housed in Skoll's dashboard. Here are some indicators used to evaluate outcomes:

- Number of users enrolled; percentage of users retained since project start (or number unsubscribed).
- Number of reports submitted by users.
- Number of household members enrolled by users.
- Number and type of "unique" recruitment and outreach efforts (tabling at events, passing out flyers, etc.).
- Number and type of "continuous" recruitment and outreach efforts (posters, online ads, links to FNY on website, etc.).
- Estimated number of people engaged via unique and continuous recruitment efforts.

If focus groups, interviews, or surveys were conducted pre-implementation, post-interviews or questionnaires can evince changes in knowledge, attitudes, perceptions, and beliefs. However, it can be difficult to survey a random sampling of the target population, and focus group participants are likely to have changes in knowledge, attitudes, etc., after the first session. It would be challenging to measure true changes in outcomes using qualitative methods.

Flu Near You Outreach Campaign Best Practices: LSUHSC School of Public Health



Background

In this section we will apply the tactics outlined above to the specific methods implemented by the LSUHSC School of Public Health FNY team. Our team consisted of a principal investigator (PI), Randi Kaufman, DrPH, a faculty member with a background in both community health sciences and health policy and systems management; a co-PI, Susanne Straif-Bourgeois, MPH, PhD, an infectious disease epidemiology faculty member who was the Assistant State Epidemiologist at the Louisiana Office of Public Health; and two student ambassadors: Nick Payne, a second year epidemiology MPH student, and Jasmine Meyer, a behavioral and community health sciences MPH student with a background in community health programs. Although there is no exact requisite for FNY outreach staff qualifications, some combination of experience in outreach and epidemiology is beneficial.

Our team's thorough planning and multi-level, multi-dimensional outreach campaign resulted in increased FNY enrollment in the 2014-2015 flu season in Louisiana with very few participants lost during our project period, rates that were significantly improved from registration data prior to implementation. Based on this success, we were awarded another grant for the following season to expand our strategies. The setting for our outreach campaign in year one was the LSUHSC campus, although the FNY campaign was staffed and centered in the school of public health. In year two we expanded our contest from individuals in one university to one between all regional schools of public health, some of which were located in

health sciences centers, while others were in traditional academic settings. Best practices from both years are married below.

Phase I - Planning

I. Formulate Program Goals, Strategy, and Objectives

- A. Goals specify what will happen as the result of a program - they are broader than objectives, which state detailed outcomes that indicate if goals have been met. Goals give your program overarching purpose and are the fundamental criteria by which it will be judged, or in the case of a proposal, accepted.
- B. Objectives state who will change, by how much, and by what date as a result of the program. They are measurable and linked to variables of interest. As mentioned previously, a good roadmap to write objectives is the SMART acronym -

- Specific (concrete, detailed, well-defined)

- Measurable (numbers, quantity, comparison)

- Achievable (feasible, actionable)

- Realistic (consider resources)

- Time-bound (defined timeline)

LSUHSC School of Public Health Flu Near You grant overarching goals (letters) and objectives (numbers).

First Project Period (2014 - 2015 Flu Season)

- a. To increase sustained use of Flu Near You among students and faculty of LSUHSC, and to facilitate use among the 18 - 30 year old demographic.
- b. To develop and refine outreach methods.
- c. To evaluate processes, recruitment, and retention methods.

Second Project Period (2015 - 2016 Flu Season)

- a. Goal 1 - This project will promote participatory disease surveillance among current and future public health professionals in Louisiana through Flu Near You student ambassador outreach.

-
1. By March 15, 2016, increase FNY enrollment in Greater New Orleans by 20% through outreach at LSUHSC, Dillard, Xavier, and Tulane Universities.
 2. Increase knowledge of and interest in leveraging FNY influenza surveillance systems at the Louisiana Office of Public Health by May 31, 2016
- b. Goal 2 - This project will strengthen the capacity of universities to promote FNY at the university level.
3. Engage at least 3 schools in a local FNY recruitment challenge by May 31, 2016.
 4. Work with at least one national level association, such as Association of Schools and Programs of Public Health (ASPPH) and APHA, to promote FNY to populations affiliated with schools of public health by November 31, 2015.
 5. Create a toolkit for FNY ambassadors at schools of public health to be housed online by Skoll by May 31, 2016.
- c. Goal 3 - This project will increase awareness and interest in FNY through disseminating the results of our work at the state and national levels.
6. By November 1, submit announcement of new award and project for publication in the ASPPH weekly Friday newsletter.
 7. Represent FNY at APHA annual meeting in October-November 2015.
 8. Submit at least one abstract to present or have a poster at the Louisiana Public Health Association Annual Meeting in April 2016.
 9. Develop draft on article for submission to a journal by May 15, 2016.
- C. A strategy describes the processes by which your goals will be achieved and further justifies the need for your goals, setting up the framework for your work plan. A strategy enhances your ability to clearly explain and illustrate program concepts and approaches for key stakeholders. The components of our strategy were evaluation, recruitment, and retention:
2. **Evaluation** - Although the LSUHSC population is disposed favorably toward health-related issues, early outreach indicated that the 18-30 year old demographic is not as immediately receptive to using the Flu Near You app. To

ensure optimal outcomes we will be focusing firstly on Formative Evaluation to determine methods of outreach and marketing that will engage our audience and target demographic. This Formative Evaluation will include Focus Groups and Surveys. The activities in our Work Plan may be altered based on data collected during Formative Evaluation. All activities and final outcomes will be evaluated using a multitude of indicators. We will track both quantitative and qualitative measures.

3. **Recruitment and Retention** - The second stage of our project will be Recruitment and Retention of FNY users. To this end we will conduct a “kick-off event” and then employ a variety of activities (Ex: presentations and tabling), marketing (Ex: giveaways, social media, and flyers), and an incentivized contest for sustained use of the FNY app. The latter is meant to increase retention of FNY users. Our strategy for these activities will be to market FNY as an innovative and beneficial technology that has both an immediate and a long-term impact on public health. We hope to provide an image of FNY that is relevant to both the LSUHSC and general populations.

II. Logic Models

A logic model is a picture or overview of how your organization does its work. It links inputs (dedicated resources), activities (services drawn from resources), outputs (products/ data/ metrics), outcomes (changes in participants), and impacts (community or systems changes). The process of developing a logic model is an opportunity to chart the course, consciously creating an explicit understanding of the challenges ahead, the available resources, and the general timetable. It allows for a focus balanced simultaneously on the big picture and the nuts and bolts needed to accomplish your goal.

LSUHSC School of Public Health (2014 - 2015 project period) FNY Logic Model:

Inputs	Outputs		Outcomes		
	Activities	Participants	Short	Medium	Long-Term
Grant \$\$\$ Labor Partners Volunteers Supplies Giveaways Incentives	Conduct focus groups, surveys. Tabling. Presentations. Contests. Social Media presence.	LSUHSC staff, students and faculty. Community nearby LSUHSC.	Participants increase knowledge about concept of FNY and its utility. Participants gain ability to easily find and download app. Participants become interested in adding FNY to personal routine.	Participants download FNY. Participants regularly report. Participants refer FNY to social network. Participants discuss local FNY trends w/ social network.	LSUHSC community that is informed about seasonal flu and engaged in prevention.

Assumptions	External Factors
1. Low interest among community. 2. Burdensome for low-tech participants.	1. Holidays. 2. Competing agendas (work, school schedules).

III. Work Plan

A program's success can be due in large part to its design and planning. A detailed work plan allows you to develop your strategy or objectives into detailed implementation activities in a chronologically ordered timeline. With a step by step guide for reaching your objectives, it is easier to stay focused and direct your energies to achieving and documenting your results.

LSUHSC School of Public Health (2015 - 2016 project period) FNY Work Plan:

	Month 1-2	Month 3-4	Month 5	Month 6	Month 7-8
Objective 1: By March 15, 2016, increase FNY enrollment in Greater New Orleans by 20% through outreach at LSUHSC, Dillard, Xavier, and Tulane University.					
Description of key activities	<ul style="list-style-type: none"> Establish contacts at local SOPHs Plan mass media/social marketing campaign Refine contest Order promotional items 	<ul style="list-style-type: none"> Implement social marketing campaign Refine contest structure and instructions for toolkit. Compile guidance (instructions and tools) for recruitment challenge packet. 	<ul style="list-style-type: none"> Implement social marketing campaign Refine contest structure and instructions for toolkit. Compile guidance for recruitment challenge packet. 	<ul style="list-style-type: none"> Implement social marketing campaign Finalize guidance for recruitment challenge packet 	<ul style="list-style-type: none"> Write final reports
Objective 2: To increase knowledge of FNY influenza surveillance systems by 50% at the Louisiana Office of Public Health by May 31, 2016.					
Description of key activities	<ul style="list-style-type: none"> Establish contacts at LA OPH Refine message and research on benefits of using FNY 	<ul style="list-style-type: none"> Refine message and research on benefits of using FNY Engage LA OPH contacts through various communication channels 	<ul style="list-style-type: none"> Engage LA OPH contacts through various communication channels 	<ul style="list-style-type: none"> Present on benefits of using FNY 	<ul style="list-style-type: none"> Write final reports
Objective 3: To recruit at least one national level association, such as Association of Schools and Programs of Public Health (ASPPH) and APHA, to assist with promoting Flu Near You to Schools of Public Health by November 31, 2015.					
Description of key activities	<ul style="list-style-type: none"> Outreach to ASPPH and APHA to inform of recruitment challenge 	<ul style="list-style-type: none"> Finalize terms of outreach strategy and commitment from national association(s) 	<ul style="list-style-type: none"> Implement strategies. 	<ul style="list-style-type: none"> Implement strategies. 	<ul style="list-style-type: none"> Review results and plan for next flu season.
Objective 4: To create a toolkit for FNY ambassadors at schools of public health to be housed online by Skoll by May 31, 2016.					
Description of key activities	<ul style="list-style-type: none"> Learn of and share recruitment and promotional materials with USF team 	<ul style="list-style-type: none"> Review both schools' materials and evaluation to determine best practices for toolkit 	<ul style="list-style-type: none"> Report on suggested best practices and toolkit items 	<ul style="list-style-type: none"> Build toolkit, receive feedback from USF 	<ul style="list-style-type: none"> Work with FNY to integrate toolkit onto their website

Objective 5: By November 1, submit announcement of new award and project for publication in the ASPPH weekly Friday newsletter.					
Description of key activities	Write summary of project and submit ask LSUHSC SPH staff to submit.				
Objective 6: Represent FNY at APHA annual meeting in October-November, 2015.					
Description of Key activities.	Register for APHA. Prepare materials.	Attend APHA.			
Objective 7: Submit at least one abstract to present or have a poster at the Louisiana Public Health Association Annual Meeting.					
Description of key activities		Find out when meeting is and how to submit abstract.	Develop abstract.	Submit by required deadline.	Attend meeting and present poster or presentation.
Objective 8: Develop draft on article for submission to a journal by May 15. 2016.					
Description of key activities		Determine topic in consultation with Skoll. Select journal.	Outline paper and begin draft.	Submit draft to Skoll for review. Revise as needed.	• Submit to journal.

Other factors complementary to your work plan and critical to achieving success are identifying key partners and stakeholders you will need to engage in order to achieve your activities, describing the activities in such a way that you and others can reference and understand them throughout the project period, delegating lead staff for activities, and developing meaningful measures for evaluating those activities.

IV. Evaluation Plan

Evaluation is a systematic method used for collecting, analyzing, and applying information to answer basic questions about a program. An evaluation plan helps to identify and collect data needed to monitor and improve programming. Evaluation allows for quality improvement in processes and implementation, demonstration of programming efficacy, or to analyze changes in the target population or environment.

Evaluation can be (1) *Formative*, in which you assess the need for your project or the population's baseline knowledge, attitude, perceptions, etc. This can be done through a Needs Assessment, Focus Groups, surveys, etc.; (2) *Process*, to understand how a program is implemented and carried out; or (3) *Outcome*, to assess whether the program made the intended difference, suggesting the program's effectiveness.

LSUHSC School of Public Health FNY Evaluation Plan (2014 - 2014 Flu season):

1. Formative

Objective: To inform development of outreach strategies for each population. Includes tailored messages, images, activities, materials, and media.

Data Collection/Resources: Focus group and brief follow up survey of target populations.

Activities: Use results of initial focus groups, one for students and one for faculty, to generate potential messages/incentives. Hold second set of focus groups or brief survey to get feedback on ideas for messages and materials.

2. Process

Objective: To determine: 1) if program activities were completed as planned; 2) how well the activities were conducted; and 3) if the target populations were reached.

Data Collection/Resources: Web-based data portal (PODIO). Items to track include contacts, events, materials and marketing efforts, as well as notes of student ambassadors. Also, use data from FNY dashboard, project plan, and results from formative evaluation.

Activities: Compare data with project plan. Determine to what extent the plan was completed, what changes were made during implementation and why, and the extent to which activities reach their intended target populations. Conduct qualitative analysis of student ambassador notes.

3. Outcome

Objectives: To determine: 1) how effective outreach activities are overall; and 2) how effective specific outreach messages, material, and activates are for the target populations.

Data collection/resources: Use data collected during project, project plan, and results of formative and process evaluations, and FNY dashboard.

Activities: Determine how specific activities, material, messages, and media are related to (and the level of) participation in weekly surveys with specific activities and messages/materials. Determine the relationship between overall and specific outreach activities and recruitment/retention of target populations.

Key Questions:

Were the inputs timely?	Did formative events occur? Did unique recruitment and outreach efforts occur?	Did LSUHSC engage/attend as expected? Who did or didn't engage/attend?	To what extent did knowledge increase? To what extent did personal interest increase?	Are participants actually downloading FNY? How regularly are participants reporting? How often are participants discussing local FNY trends w/ others?	Is the LSUHSC community more informed about seasonal flu? Does LSUHSC feel that they have resources to be influential force in flu prevention?
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Indicators:

\$ used.	# focus groups, surveys.	#, % engaged during tabling.	#, % with increased knowledge of FNY.	#, % downloading app.
# partners.	# unique recruitment and outreach efforts.	# attended events.	#, % who report greater likelihood to use FNY or have more favorable opinions of FNY.	#, % reporting regularly.
# volunteers.	# continuous recruitment and outreach efforts.	#, % staff, student, and faculty that are engaged with or attend events.		#, % referring FNY to others.
Time delivered.				#, % sharing FNY trends.

V. Designing a Participation Contest

A participation contest is a vital framework for both designing activities/Social Marketing campaign around, as well as for evaluating your program. A contest/prize provides incentive for new users to overcome barriers to participation, sign up, and can facilitate retention. Essential considerations of the contest terms should be:

-
- **Participants** - Based on the target audience and scope of your work, you will need to determine whether participants are individuals or teams. Depending on the size of the contest, the prize can be awarded to individuals, clubs/groups/departments, or a school or organization.
 - **Award** - Whether monetary, gift certificate, or object, the prize should be of appropriate value to incentivize participation for either individuals or teams. You can also capitalize on the prize to incentivize participants to do some recruiting for you in a team-based contest — if the team with the most contest entries wins, and everyone benefits from the prize, then it is in participants' best interest to stimulate more entries for their team. This is especially successful in a scenario where the team has natural leaders, such as a student government association, club or group leader, department head, etc.
 - **Eligibility Criteria** - Participants must be a member of the school or organization your contest is targeting, and must have fulfilled the terms of your contest. The terms of a contest and eligibility criteria should be designed to encourage as much participation as possible, preferably over a period of time, so that not only are new users incentivized to sign up, but FNY reporting becomes a habit. Some examples are: (1) requiring participants to have a 70% reporting rate over 20 weeks in order to be an entry, (2) weighting participation rates for the contest period, so that 70% = 70 points or 80% = 80 points, (3) creating an algorithm for participation rates over time. For FNY outreach campaigns that have fewer staff or resources, the contest can be scaled down so that eligibility requirements only entail signing up to FNY.
 - **Methodology** - How will entries be recorded and validated? Some options are a screenshot of participant's FNY report card, sharing weekly reports on social media, or online surveys (see *Additional Resources* for examples).
 - **Duration** - The duration of your contest should be feasible for your scope of work and may be determined by the overall project period, or a natural timeline such as flu season, semesters, or quarters.

VI. Promotional Products

Other incentives (besides the contest prize) may be needed to recruit potential participants during social marketing outreach activities such as tabling, events and presentations, or through circulation. Promotional products may entice individuals to approach you while tabling, can serve as a reminder of your organization or for brand recognition, and can have exponential exposure as they are carried around or passed along. You should se-

lect your items based on usefulness/appeal to your audience and visibility. Budgeting for promotional products should be based on their intended scope and reach: are they intended for point people who have served your outreach campaign or for mass giveaway?

Promotional Products used in the LSUHSC School of Public Health FNY outreach campaigns, where the audience were faculty / staff / students of a health sciences center during flu season:

Promotional Item	Intended for	Effectiveness
Pens	Mass distribution	Very - widely used, repeated visibility.
Koozies	Mass distribution	Less utilized than expected among college students in a town where social drinking is a celebrated norm. Not recommended.
Screen cleaners	Limited distribution - focus group participants and point people.	A coveted giveaway
Hand sanitizers	Mass distribution	Very - widely used, repeated visibility.
Chapstick	Mass distribution	Popular during winter but less so than hand-sanitizers.
USB cards	Limited distribution - focus group participants and point people.	A coveted giveaway.

Other promotional product recommendations: individual tissue packs, tote bags, ID clips.

Phase II - Formative Evaluation

Technically, formative evaluation is an aspect of project planning; however in this section we are distinctly referring to activities designated to test the efficacy of our messaging, media (including promotional items), and planned activities on the target audience. This kind of formative evaluation can be a crucial step in a successful social marketing campaign. We tested our outreach strategies in two ways at LSUHSC, through focus groups and pilot tabling.

- Pilot Tabling - The first FNY activity we engaged in was pilot tabling at a campus wellness center flu shot clinic. The first flu clinic of the year is a high-traffic event, as most health-

care faculty / staff / students are mandated to receive flu shots for clinical work. This was an excellent opportunity to assess the LSUHSC population's reaction to FNY.

The Response - The vast majority of those who approached our table expressed anxiety about the idea of being able to see flu in the area on a map. A few found FNY interesting, and almost everyone perceived low personal susceptibility to flu, having just gotten a flu shot.

The Takeaway - The message about what FNY is and why it is useful has to be carefully tailored to avoid rhetoric that might evoke anxiety, but rather shift the locus of control to the user / participant. At the same time, individuals have to be informed as to how using FNY is beneficial to them, a tricky rationalization since the benefits may not directly impact the individual.

- Focus Groups - Focus groups are a way to collect information or descriptive “data” through group conversations generated by an evaluator or program professional. Focus groups have been traditionally used in marketing as a technique to assess the intended audience's response to a product. It is used similarly in public health and especially in social marketing. We needed to learn more about what would make FNY an appealing product to health sciences students and faculty / staff, so we conducted two sessions for each of those segmented audiences. See *Appendix B* for a guide to Planning and Conducting a Focus Group and *Appendix C* for our full Focus Group report.

Phase III - Implementation

- Contest - Program implementation is structured within a participation contest, the framework for conducting outreach to recruit new FNY users. Although participants can be engaged in any setting, we were tasked with increasing enrollment among university students, representatives of the hard-to-reach young adult population. Further, as future healthcare, public health, and research professionals, the LSUHSC student population form the ideal basis for dissemination.

Contest Terms	2014 - 2015	2015 - 2016
Participants	Individuals at LSUHSC	Public Health student bodies at 3 schools: LSUHSC, Tulane, and Xavier (and any participant they recruit).
Award	Two \$50 gift certificates awarded to individuals	A \$2500 Visa gift card for the student body with highest percentage of entries

Contest Terms	2014 - 2015	2015 - 2016
Eligibility Criteria	Entries must download the app or register online - winner is chosen at random among those with highest number of reports.	New users must report at least 4 weeks with a 75% participation rate. Returning users exempt from these criteria.
Methodology	Take weekly screenshot of report or share via social media.	Entries made via online survey - 1 point per entry assigned to one of the 3 schools and validated by a screenshot of report card.
Duration	February 1 - March 31, 2015	January 19 - April 15, 2016

FNY Participation Contest (2014 - 2015)

In our first project period at the LSUHSC School of Public Health our focus was on increasing new users in the university's student population; therefore our contest participants were individuals to facilitate new and sustained users. This also allowed other terms of the contest to remain manageable for a new project. The award had to be enough to incentive participants to meet our eligibility criteria, but for individual winners a small prize can go a long way. Our eligibility criteria could also be a little rigorous since individuals were accountable to themselves.

What Worked - The contest was manageable and targeted. We were able to successfully identify attractive messaging and incentivize participation. Rates of participation increased and held steady.

What Didn't Work - Requiring participants to document their participation on a weekly basis and submit at the contest close was prohibitive. It effectively narrowed eligibility to win the prize. However, new FNY technology - the Report Card - allows users to see when how long they have been eligible to report and what their participation rate is.

FNY Participation Contest (2015 - 2016)

For our second consecutive grant cycle, we were able to build on knowledge and momentum gained in the previous year, so we expanded our contest to 4 schools of public health in New Orleans. Our plan was to engage student government associations in recruitment at their respective schools, incentivizing their outreach with a larger prize. However, we stipulated that the entire school of public health student

body be given the opportunity to vote on how the prize money was allocated. This was to ensure that individual students also had an incentive to both participate and conduct outreach. In order to maximize the potential reach of the contest, we allowed anyone to enter the contest on behalf of one of the participating schools. This meant that if a student recruited his/her grandmother to register for FNY and participate in the contest, the grandmother could be an eligible entry, also.

What Worked - The use of online survey (*a tip from UCB*) & screenshot of report card to verify entries. We were able to work with our Epidemiology Data Center to develop the survey. Working with student government associations helped to create more outreach pathways. Surprisingly, the undergraduate students were more interested than the graduate students, which could mean that either our message was more tailored to them or they are more open to new information.

What Didn't Work - Some student government bodies were more established, more motivated, or more empowered than others, which influenced our outreach power. Navigating inter-school politics proved difficult in some cases. One school rivalry inhibited certain kinds of outreach activities from our student ambassadors, and another school's bureaucracy was unsurpassable in our timeframe.

Lessons Learned - Multiple spheres of influence were the most helpful in overcoming various barriers to implementation in external schools. For example, one of our PIs was previously faculty at one of the schools, while one of our student ambassadors was both a former undergrad student at another school, and some of her relatives were faculty there. Most of our barriers could have been overcome, and we would have been more effective, had we hired a student ambassador from each of the schools we were targeting.

- Kicking Off a Participation Contest

The Event: A participation contest has to be carefully planned, prepared for, and initiated. The design, messaging, and incentives are all essential components of planning and preparing, but the initiation is one of the most crucial steps. We call this the "kick-off," or the event that marks the beginning of the contest. The kick-off event should provide information on what Flu Near You is and the terms of the contest (see Appendix _ for our Powerpoint presentation). It is helpful to try to get as many people to attend as possible, because this is an opportunity to arm potential recruiters with background information on the potential benefits of using FNY.

Getting People There: Your outreach should begin in advance of the kick-off, using many of the same social marketing techniques to recruit kick-off attendees that you would use to recruit contest participants. Once you have a time and place secured,

it's helpful to communicate that information to any helpers, and direct outreach should begin about 2 weeks before the event. Incentives, like lunch and awareness of information about a contest/prize, are also very helpful.

- Social Marketing - Here is an overview of the outreach techniques we implemented:

Tabling - The most consistent bedrock of our campaign, tabling is easy to schedule and has the capacity to introduce many people to FNY. During the planning stage you will need to research who at your school or organization can approve tabling, and then strategically create your tabling schedule to catch multiple audiences in high-traffic times and spaces. It is also beneficial to secure a table at wellness/health fairs that already provide a platform and audience. Specific tabling strategies:

- Grab attention with visuals, incentives, and a few catchy words. Most people won't approach your table on their own, so it's your job to make sure they do. Start by asking passers if they want to learn how to win a prize, then briefly describe the FNY participation contest. Ask them to sign up now (it's fast and easy!) or leave an email and you'll send more info about the contest/FNY. Be clear that you won't spam their email.
- If they have paused and are listening, don't miss a beat in giving a brief overview of what FNY is and why it's beneficial. For example: it's technology that uses self-reporting to track and map potential flu symptoms via a mobile app or website; it gives health officials real-time data - similar technology in Europe and Australia detected swine flu outbreaks 1 week earlier than sentinel flu reporting symptoms, allowing for public health resources and media to mobilize faster; it's easy and free.
- Then reference the participation contest again. If they haven't already, get them to sign up on the app or give their email for more information on contest terms/FNY.
- Don't use jargon or acronyms unless they've indicated they're in public health - most people don't know what "participatory surveillance" is, so stick to simple explanations.
- Be direct, clear, and concise. Try not to use filler words or questions - just get down to the core information, assuming they won't stay longer than 10 - 30 seconds.

-
- Read your audience. They'll give you clues about whether they want more information. If they're hanging around keep describing FNY and/or Skoll Global Threats Fund in more details.
 - Have promotional items and hand-outs with FNY / contest information, and give them to whomever you can. This is also a way to assist in getting attention from passing folks.
 - Don't be too rehearsed; be adaptable, relaxed, but professional.

Presentations - We found presentations to be the most effective way to truly engage the audience in FNY, but this was incredibly dependent on our adaptability, as well. Depending on the subject of the class, event, or meeting, we tried to make our content relevant by applying FNY to the subject material. It's also important for presentations to be dynamic and engaging, unless you only have 5 minutes to deliver your message. Examples of presentations in (both undergrad and graduate):

- Classes - Global Health (factors contributing to pandemics, industrial food systems and flu strains), Behavioral Health (behavioral theories applied to FNY and populations engaged), Microbiology (how the flu's RNA adaptability leads to rapid mutation & animal disease mergers), Biological Basis of Disease (flu mutations and vaccine limitation).
- Existing events and meetings - Student government meetings, other student organization meetings or events, faculty / staff meetings, specialty committees, board of directors meetings, task-force meetings, coalition meetings, multidisciplinary meetings and events, wellness/health/immunization fairs, etc.
- Professional Conferences - FNY is tapped into the national public health professional associations, but it's your job to connect with local organizations and utilize opportunities to promote your program or present your research.

Mass Media - By far the most effective technique for getting your message out to a large audience, mass media includes television, radio, podcasts, and newspaper. For LSUHSC, all PR must go through one designated office, so any mass media we were able to pursue had to be secured and approved by the school. This created both barriers (could not control timing, reach out to some sources, or use FNY's PR office) and benefits - we were able to secure coveted television news show spots. Due to the magnitude of this opportunity, it's very important to ensure your message will be concise but convey the right cues to action for the general population. While FNY participation often spikes after these mass media events, more continuous outreach is needed to sustain interest and retain users.

Other Media - Use any media at your disposal that may be an effective way to communicate to your audience! Social media (*see Additional Resources*), emails (including utilization of external listservers), text message alerts (if appropriate), and digital signage.

Handouts - While posted paper handouts aren't always effective, handouts supplementary information materials and can be useful when deployed correctly, such as while tabling or at presentations/events. Flyers are great for capturing announcements, conveying overarching activities or goals, or other limited information. Try double-sided postcard size (or half-page) flyers - they carry information more concisely. Brochures are excellent for lengthier explanations of FNY and/or the contest. Infographics are an excellent visual representation of a needed action, such as reporting symptoms or how to participate in the contest. (*See Appendix D for examples*).

Signage - Let people know who you represent! It is helpful to have signage such as a banner, tablecloth, or poster for identification or brand recognition.

- **Quality Improvement** - One of the most important aspects of program implementation is quality improvement (QI). QI can ensure you're making the most of your resources, working efficiently, and adjusting your practices to meet real-world situations. Here are some QI tips and practices:

Always ask yourself *what went well, *what didn't go well, *and how you can improve or change. We created an "Event Log" (*see Appendix E*) for documenting our outreach events. In addition to logging the data needed for our monthly tracking reports, we also log the above QI questions. However, critical examination of your practices should not be limited to events and outreach, but also internal activities.

Communicate with your team - it's necessary for the success of your project. Let your colleagues know what's going well, what isn't, and discuss how you can improve or change. Create pathways for communication, such as emails for pressing matters or alerts, weekly staff meetings to discuss progress and next steps, and a central information database for sharing documents (such as PODIO or Google Drive).

Network, leverage connections

Phase IV - Final Analysis Outputs

Your project isn't complete without an analysis of your activities or research, for both the purpose of self-reflection and for information sharing. This increases the value of the work you've done by making it translational to future FNY projects. Reporting on your project's implementation is essential, and research outputs are important contributions to the growing body of evidence on how Flu Near You is impacting public health disease surveillance. Here is a brief description of our final analysis outputs:

- **Final Report** - At the end of each project period, the LSUHSC team compiled a final report on our programming, including an overview of the goals and strategy, detailed activities, an actual timeline of milestones completed, as well as qualitative evaluation of our work and the quantitative results of our efforts. In the appendices of our reports, we include any meaningful enduring materials produced, such as our monthly tracking reports, project plan, focus group report, research poster, and kick-off event PowerPoint.
- **Exit Interviews** - We solicited feedback from the key informants who we engaged in our outreach campaign, essentially asking them the same questions we pose to ourselves: what did/not go well, and what can we improve in the future? We are looking for feedback not only on the implementation of our outreach campaign, but on their perceptions of FNY.
- **Research materials** - We produced research posters based on messaging we wanted to convey to the regional public health audience via both the LSUHSC School of Public Health Honors Day research presentations, as well as the Louisiana Public Health Association (LPHA) annual conference. LPHA offered an opportunity to raise awareness of FNY among Louisiana Department of Health and Hospitals (DHH) officials. (*See Appendix A for our research posters*).

Flu Near You Outreach Campaign Best Practices:

University of California, Berkeley

Here are some best practices the University of California, Berkeley (UCB) FNY outreach program shared with us. They offer fresh insight into strategies for recruiting participants in another setting.

Background

- UCB began planning for their intervention in the summer of 2015, giving them plenty of time to hire staff and develop an outreach plan before the beginning of flu season. Rather than working in a health sciences center, their outreach targets UCB undergraduates - a broad spectrum of academic disciplines. Their PI, Dr. Patricia Wakimoto, and two of their student ambassadors (SA), Diego Gamboa and Taylor Ranney, are in public health. The third SA, Karen Kwanning, is double in psychology and ethnic studies, as well as the leader of a multicultural student organization on campus.

Formative Evaluation

- UCB conducted a focus group with eight students over the summer. They received feedback on the app, and students expressed enthusiasm mostly about an indirect way to give back to community. However, they were concerned with retention and the need for incentives, such as a competition, etc.
- In the fall, there was a follow-up to the focus group - informational interviews using a modified version of focus group questions. They were exploring which questions would elicit data/information different than what was already collected. About 15-25 undergrad students participated. Incentives were provided (bags with water bottles).

Outreach

- Diego initiated a collaboration with the health workers program he was connected to, a volunteer student group that works with university health services to conduct outreach to residence hall students. This strategy was identified as a way to increase residents' involvement with FNY and receive specific feedback on health workers point of views via surveys (n=45).

-
- They conducted a participation contest between 4 campus student groups with a monetary prize for highest proportion of new users. The denominator was based on attendance at the initial meeting/presentation. They are leveraging the student groups, totaling about 100 students, to recruit for FNY. The duration of the contest was the fall 2015 semester, and it was initiated with a presentation to give each student group background on the app for information sharing. UCB tracked contest entries through an online survey link (survey tool was Qualtrics), with the option of sharing via social media to double individual entries.
 - Social media - UCB hasn't used social media but do encourage students to post on existing FNY social media outlets. They have also considered using Instagram.
 - Other materials - In focus groups a poster was used with detachable info hand outs. Additionally, the focus groups indicated a negative response to flyering, as UCB is already inundated with flyers.

Conclusion

Lessons Learned & Future Recommendations

Although this toolkit is designed to give structure to your program, all Flu Near You outreach campaigns should be adapted to the setting and audience you are targeting. You should consider the resources and limitations that will affect the success of your implementation. Here are some lessons learned and recommendations based on the LSUHSC School of Public Health implementation:

- **Duration of project period** - This may be our strongest recommendation for future FNY outreach campaigns. Due to unavoidable circumstances, our project period for both years lasted from October - April, the length of flu season plus a month for final reporting and evaluation. A combination of arbitrary delays, such as internal program approval, hiring, and training, pushed our start date back to November, leaving roughly 3 weeks to initiate implementation before the winter holiday. We were then unable to commence with the participation contest until at least mid-January, when school was back in session. Our outreach was limited to only 2 full months at the end of flu season, when many people have lost interest. We recommend beginning a project period beginning in August, so that hiring and formative evaluation may be completed before October 1, and the contest kick-off coincides with the beginning of flu season.

-
- **Community partners** - Although our target population has been mainly focused on college students, we have also tried to raise awareness of FNY at the DHH. As previously mentioned, we did so through research presentations at public health conferences, but we also worked through existing DHH connections. We found that the Louisiana DHH, a severely under-resourced entity, was not very open to learning about FNY. However, it may be beneficial to work with non-governmental organizations to leverage the strength of your outreach program's impact in the community. This can include both clinical and nonprofit agencies.
 - **Staff structure** - Your staff are one of the many resources that will affect your implementation, so it's crucial to strategically hire students/staff for their complementary skills and personalities. We have experimented with this, and our implementation was smoother and more effective when we hired one student ambassador experienced in outreach and the other in epidemiology.
 - **Navigating multiple implementation sites** - In our first year we focused solely on our own school for outreach, resulting in a manageable and well-executed program. For our second year we wanted to expand the scope and reach of our program, so we included 4 schools of public health in our contest, but we ran into several barriers. One school's bureaucracy prevented students from participating, and another [competing] school limited our opportunities for outreach. However, we had enormous success at an undergrad school, which one of our student ambassadors attended the year prior. This suggests hiring students from the schools you are targeting may increase opportunities for outreach, but we have not tested that theory.

Additional Resources

Influenza Participatory Surveillance

Flu Near You - <https://flunearyou.org>

Flu Tracking - <http://www.flutracking.net>

Influenzanet - <https://www.influenzanet.eu>

Behavior Change Models

Health Belief Model -

<http://www.jblearning.com/samples/0763743836/chapter%204.pdf>

<http://recapp.etr.org/recapp/index.cfm?fuseaction=pages.TheoriesDetail&PageID=13>

<http://sphweb.bumc.bu.edu/otlt/MPH-Modules/SB/SB721-Models/SB721-Models2.html>

Social Marketing Theory -

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1463924/>

<http://www.cdc.gov/nccdphp/dnpa/socialmarketing/training/basics/index.htm>

http://ec.europa.eu/health/ph_determinants/life_style/alcohol/Forum/docs/ev_20081112_co01_en.pdf

Social Media

<http://blog.hootsuite.com/types-of-social-media/>

<http://60secondmarketer.com/blog/2010/04/09/top-52-social-media-platforms/>

<http://www.cdc.gov/socialmedia/>

<https://www.apha.org/news-and-media/social-media>

Online Surveys

<http://www.surveygizmo.com>

<https://www.surveymonkey.com>

<http://www.qualtrics.com>

Evaluation

<http://www.cdc.gov/eval/>

Community Sustainability Engagement: Evaluation Toolbox - http://evaluationtoolbox.net.au/index.php?option=com_content&view=article&id=24&Itemid=125

SMART Objectives

CDC Evaluation Briefs: Writing SMART Objectives - <http://www.cdc.gov/healthyyouth/evaluation/pdf/brief3b.pdf>

http://www.cdc.gov/phcommunities/resourcekit/evaluate/smart_objectives.html

<http://www.health.vic.gov.au/regions/southern/downloads/Tip-sheet-writing-measurable-objectives.pdf>

<http://www.naccho.org/topics/infrastructure/accreditation/upload/Goals-Obj-training-for-SP.pdf>

Logic Model

http://www.cdc.gov/oralhealth/state_programs/pdf/logic_models.pdf

<https://www.urbanreproductivehealth.org/toolkits/measuring-success/logic-model-guides-and-examples>

Needs Assessment

<http://www.phi.org/uploads/application/files/dz9vh55o3bb2x56lcrzyel83fwfu3mvu24o-qgvn5z6qaeiw2u4.pdf>

<http://www.nachc.com/client/documents/CHNA%20Final%20June%202013.pdf>

Appendix

LSUHSC Research Posters

(2015)

Influenza Surveillance in the Digital Age: Crowdsourcing Community-Based Health Reports with 'Flu Near

NICK PAYNE, (MPH), BA; JASMINE MEYER, (MPH), BA, DTR; RANDI KAUFMAN, DRPH; SUSANNE STRAIF-BOURGEOIS, PhD, MPH
LOUISIANA STATE UNIVERSITY HEALTH SCIENCES CENTER SCHOOL OF PUBLIC HEALTH

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Background

- Traditional flu surveillance relies on physician reports.
- Now, the public can directly report symptoms on the internet or a smartphone application.
- In Europe and Australia, user-contributed self reports have proven effective for early detection of outbreaks.
- 'Flu Near You,' a US-based flu tracking system, holds similar promise.

Objective

- To demonstrate the value of integrating crowdsourced flu surveillance with traditional, health-care based surveillance.

Putting the Public in Public Health

Traditional Sentinel Surveillance

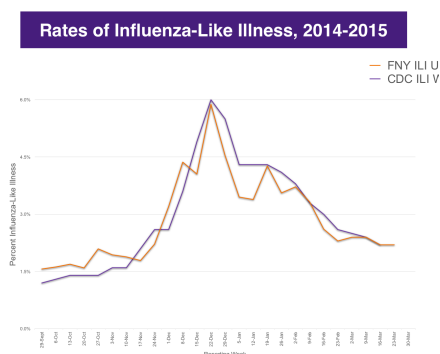
- A top-down, hierarchical process using health-care based physician reports.

'Flu Near You' Surveillance

- A bottom-up, community-driven process using crowdsourced health reports.

Traditional + 'Flu Near You' Surveillance

- A cooperative top-down and bottom-up process.



	Traditional Sentinel Surveillance	'Flu Near You' Surveillance	Traditional + 'Flu Near You' Surveillance
RELIABLE	+	+	+
SPECIFIC	+	+	+
SENSITIVE	+	+	+
GENERALIZABLE	+	+	+
FLEXIBLE	+	+	+
TIMELY	+	+	+
GEO-TARGETED	+	+	+

Challenges

- Optimal performance requires widespread, diverse group of users.
- Investment needed for further data validation.

Future

- Sustainability could be achieved through integration with traditional sentinel surveillance.
- System flexibility may allow for rapid adaptation in response to emerging threats.
- Greater community engagement in public health could be realized.

Reference

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- Napier et al. Step protocol: success and challenges of crowdsourcing as a method of surveillance. *Journal of Public Health Management Practice*. 2013; 18(5):7-13.
- Friedman et al. Participatory epidemiology: use of mobile phones for community-based health reporting. *PLoS Med*. 2010; 7(10):e1000376.
- CDC. Weekly U.S. Influenza Surveillance Report. <http://www.cdc.gov/flu/weekly/index.htm>

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(2016)

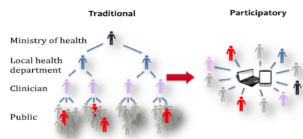
Implementation of Flu Near You at the Health Department Level

Dominguez, Olivia (MPH Candidate), BS; Bhattacharjee, Prema (MPH Candidate), BS; Meyer, Jasmine (MPH Candidate), BA, NDTR; Straif-Bourgeois, Susanne, PhD, MPH; Kaufman, Randi, DrPH

Background

Flu Near You (FNY) is a participatory surveillance system that is able to track symptoms of influenza-like illness (ILI) weekly through a mobile app or website in the United States and Canada. After participants enter the data, the system will then automatically collect and aggregate the data on the website and mobile app. FNY incorporates both mapping and descriptive statistics to display weekly results, as well as demonstrating outcomes related to symptoms reported.

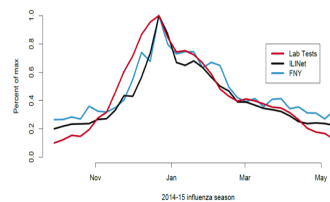
In contrast to traditional surveillance, FNY takes into account those who don't seek medical care such as those who are uninsured and/or live in rural areas and lack access to healthcare facilities.



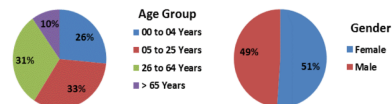
Objectives

- To demonstrate the integration of FNY into the Houston health department as an effective strategy for tracking incidence of flu.
- Display quantitative data on the number of people in Louisiana already utilizing FNY, and/or those who are registered members.

Integration of FNY at the City of Houston Health Department



An average of ~200 FNY reports per week correlated best with lab tests and ILINet



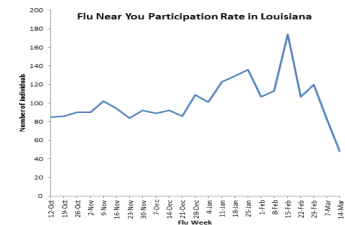
- Roughly 64% of individuals reporting are between the ages of 5 and 64 years old.
- 26% of users are household members who are reporting for their children.
- An approximately equal number of people from each gender are reporting.

Future Research

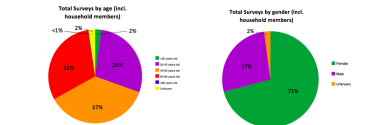
- As seen by the implementation of FNY by Houston's health department, the system has the ability to serve as a viable complement to existing outpatient, hospital-based, and/or laboratory surveillance systems with increased participation.
- With the assistance and resources provided by the health departments, FNY can be utilized by all individuals as a reliable alternate form of reporting.
- Real-time surveillance can play an essential role for early detection of outbreaks based on time and space clustered FNY reports

*Acknowledgement to Eric Bakola from the City Houston health department for providing the above graph and pie charts.

FNY activity in Louisiana



At the time of peak reporting outreach efforts were simultaneously being performed by FNY LSU ambassadors at Tulane School of Public Health and Tropical Medicine, Xavier University, and LSU Health.



- About 37% of individuals reporting were between 20-40 years old.
- In Louisiana, women were three times more likely to report than men.

Limitations and Challenges

Reports submitted to FNY originate from a convenience sample and may not be representative of the wider United States population in terms of geographic distribution, gender, age and vaccination status.

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PLANNING AND CONDUCTING A FOCUS GROUP



Backyard Gardeners Network

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LSUHSC School of Public Health MPH Candidates
February 2015

I

HOW TO CONDUCT A FOCUS GROUP

Backyard Gardeners Network

What is a Focus Group?

Focus Groups are a way to collect information or “descriptive data” through group conversation generated by an evaluator’s questions. In this case, Backyard Gardeners Network needs feedback from L9W residents about its programming’s impact, but BGN could also use Focus Groups to determine what kind of programming is needed in the community. Focus Groups are often used for health-related programs when more information about people’s knowledge, attitudes, and behaviors is needed than can be provided in a survey or individual interview. This is because of the group dynamic, which promotes discussion and revelation of new information.



Although a Focus Group is considered informal, it is still important to carefully design and ask the questions in ways established to elicit rich content without introducing bias. This tool is meant to help Backyard Gardeners Network employees who are not trained in evaluation to design and conduct a Focus Group.

Establish Goals

The first step in planning a Focus Group is establishing what kind of information you need to obtain from community members. Are you evaluating the effectiveness of programming, the appeal of a product, how to market your services, the community’s general interest in your program? Are you assessing current knowledge, attitudes, and behaviors around gardening, civic engagement, and healthy eating? Here are examples of what Backyard Gardeners Network is trying to achieve with a Focus Group:

-
1. What kind of effect BGN programming has had on the general health and nutrition of the L9W.
 2. Whether or not L9W community members are growing food, have learned about growing food, or are interested in growing food because of BGN.
 3. Whether or not L9W community members have an increased (a) sense of community, (b) ability to affect change in their community, (c) community organizing tools.
 4. Ways BGN is successfully achieving the above or can improve practices.
 5. Barriers community members face to accessing BGN programming or applying what they've learned through BGN.
 6. What kind of programming community members would respond positively to that achieves BGN's objectives.

Recruiting Your Participants

After establishing goals, you can determine what kind of groups you need to participate in your Focus Group to get the best feedback. Groups should have similar characteristics: for BGN purposes, participants will all be residents of the L9W and can be grouped by age and the level of programming they are/aren't using (see table below). You should hold different Focus Groups for each type of people using your services, when at all possible.

Focus Groups should have around 8 - 12 people in them. Too many participants can confuse discussion and make the session last too long. Too few participants can cause a loss in diversity of opinion. However, it's best to recruit for as many as 15 to allow for cancellations and no-shows.

Anticipate any barriers that will prevent your target group from coming and address that barrier. You will want to offer an incentive for participating (usually food) and determine what day of the week/time is best for the people you want to attend. For example, you don't want to hold a Focus Group for working mothers at 2p on a weekday. You may need to offer childcare.

Ideally, your participants will represent a sample of all people in the population your program serves. That way the information you get from them can be applied to everyone. In the case of BGN, there will be Focus Groups for:

1. People who go to and intern at L9GS events - because this # is limited, selection of participants will be based on whomever volunteers. You should recruit as heavily as possible to get maximum participation.

- For Kids Club or Workshops you may need all members to participate.
 - Depending on the # of youth you may need all members to participate.
2. Adopt-a-Plot gardeners - you may need all members to participate.
 3. For the people who do not use BGN services - the comparison group - you would ideally choose participants randomly from all L9W residents. This can be done by using the phone book or other residential contact lists. If this isn't possible, try to recruit as many residents as possible and randomly select 8 - 12 participants from that pool. If this is also unrealistic, you can put out a call for volunteers or use whatever means you can to recruit. Keep in mind that the more choice you have in participant selection, the more biased your feedback will become.

FOCUS GROUPS	AGES	DATE / TIME	METHOD OF RECRUITMENT	POSITION RESPONSIBLE
	Children			
L9GS	Youth			
	Adults			
Adopt a Plot	Adults			
Interns	Youth			
Comparison	Adults			

Design the Group Interview and Write Questions

The Focus Group should only last about an hour - keep this in mind when designing it. The bulk of the time is spent on the group discussion questions.

Here are the stages of a Focus Group:

- *Welcome*: the facilitator welcomes the participants, asks for consent forms to be completed, outlines aims, and provides refreshments (5 min.).
- *Icebreaking exercise*: once the group is together and seated, an introductory exercise is used to introduce participants and establish a relaxed, informal atmosphere (5 min.).
- *Introductory exercise*: introduce and give an overview or explanation of the topic as needed (5 min.).
- *Group discussion*: a series of questions is used to focus the discussion. You should begin with general questions and become more specific. Questions should be open ended to promote discussion and should not lead the participants to answer in one way or another. You can ask supplemental questions if you are not getting the information you need. (See attached BGN Focus Group questions for examples) (40 min.).
- *Summing up*: the facilitator summarizes the key issues raised and asks for any additional comments (5 min.).

How to Conduct a Focus Group

There should be at least one facilitator - 2 may be needed for both leading the discussion and recording the answers/observations. The introductory portion of the Focus Group should put participants at ease, so it should not be conducted too formally. However, the facilitator asking questions and leading the discussion should be careful to remain neutral in tone and mannerisms to avoid leading participants to a certain answer. They should also be able to facilitate discussion in such a way to get maximum content from participants.

Some examples of good facilitation include:

- Making sure every participant gives feedback without being too pushy. Encourage those who are more quiet to share their opinion.
- Tactfully making sure no one dominates the conversation.
- Asking deeper questions if the feedback isn't getting to the point.

-
- Knowing how long to let one person or the group talk before moving the discussion along.

Here are some tips to make sure the focus group goes smoothly:

- Make sure everyone is very clear to arrive on time. Have a specific agenda and keep time to stay on pace. Don't go over time - respect your participants' schedules.
- Allow for a few minutes at the beginning for participants to grab refreshments and get settled.
- Secure a comfortable and private space and have everyone seated at a round table or in a circle.
- Record the Focus Group (inform participants of this) to make sure nothing gets missed. If there is a second facilitator, they can also take notes or write down observations about the participants that will deepen understanding of the feedback.

Interpreting and Using the Results

Shortly after the Focus Group listen to the discussion and review notes to accurately record everything that was said. - questions and answers. You can write a complete Focus Group Report if you like; at minimum it should include an introduction that says why you held the discussion, the questions and answers, and a conclusion that summarizes significant findings. I will include all Focus Group Reports written for this Spring 2015 evaluation period for reference.

To apply the results to your practice or determine what impact your programming has, look for patterns in participants' answers. Reoccurring themes or general agreement indicate significant results that you can draw conclusions from.

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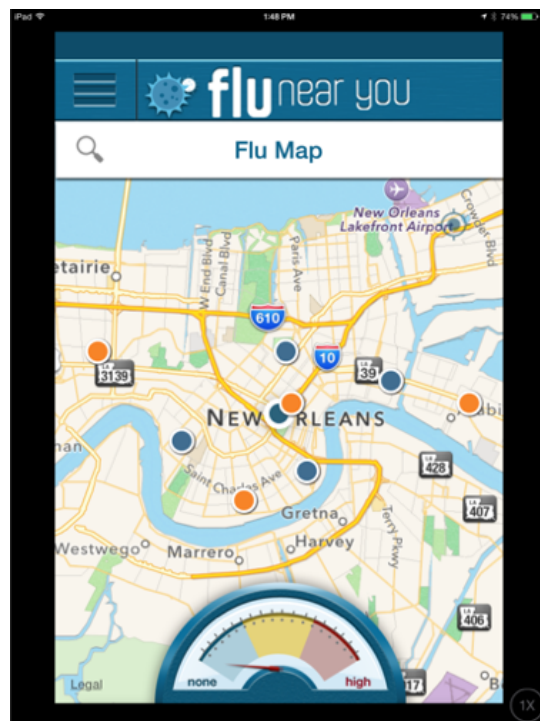
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Focus Group Report

Flu Near You Marketing and Outreach

Nick Payne, Jasmine Meyer DTR, Dr. Randi Kaufman, Dr. Susanne Straif-Bourgeois



LSUHSC School of Public Health • January 14, 2015

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Executive Summary

The LSUHSC School of Public Health began work with the Flu Near You (FNY) program in October 2014. Our initial outreach met with mixed reviews from the LSUHSC student and faculty population due to negative perceptions of influenza and lack of interest in participatory surveillance around Influenza like Illness (ILI). We determined that a more prudent approach to increasing users among the LSUHSC population would be to conduct formative evaluation. We conducted two focus groups on campus - one with students and one with faculty/staff. The results from the focus groups will inform our specific methods of marketing and outreach efforts.

In the focus groups, we briefly presented the FNY app and website, and Skoll Global Threats Fund's goals for the FNY tracking tool. We asked questions targeted at developing an outreach plan for the LSUHSC community, including which message and media we should use to market FNY. We also asked questions to determine perceptions of FNY and its usefulness to each group (students vs. faculty/staff). The two separate groups were assembled to better understand how responses to the various aspects of FNY might differ by age group.

Background

Student ambassadors were charged with increasing sustained use of FNY among students and faculty at LSUHSC. Although the LSUHSC population is disposed favorably toward health-related issues, early outreach efforts suggested limited interest in using the Flu Near You app among the university population. To ensure optimal outcomes for project, a formative evaluation utilizing focus group methodology was conducted to determine methods of outreach and marketing that will engage the LSUHSC community.

Methods

Convenience sampling was used to recruit participants. Participants were recruited by word of mouth and email sent to all faculty, staff, and students at the school. Lunch was provided as an incentive. Focus groups were conducted in person with a facilitator and note taker. Participants of both groups were asked the same series of questions. Each focus group was audiotaped.

The student ambassadors compared notes and looked for common responses and themes. They agreed on results and analysis.

Results

Two focus groups were conducted during November 2014. Fifteen faculty and staff participated in the first focus group; 13 graduate students participated in the second focus group.

Faculty/Staff Questions and Responses

November 13, 2014

The following are the focus group questions developed by the FNY ambassadors and the responses shared by participants and summarized by the ambassadors.

1. **How concerned are you about catching the flu? Why or why not?**

- Not at all.
- I'm not concerned because I've already been vaccinated.
- I think herd immunity will prevent me from getting the flu.

2. **Would you sign up for FNY? Why or why not?**

a. **What benefits do you see to using it?**

- I might sign up after seeing it promoted on Facebook but I wouldn't seek out a flu surveillance app.
- I wouldn't download the app. I don't want another app on my phone, especially for something so specific.
- I'm not concerned enough about the flu to download the app.

3. **Would you report your symptoms each week? Why or why not?**

a. **What would motivate you to continue using FNY?**

b. **What drawbacks do you see to using it?**

- I would just ignore the emails.
- I would ignore the emails after a couple of weeks.
- I'm more likely to ignore the reminders on Monday because I have more pressing obligations at the beginning of the week. Tuesdays, Wednesdays or Thursdays would be better.
- I wouldn't want reminders year-round. I would find them annoying after flu season and probably unsubscribe.
- Susceptible populations such as the elderly may be less likely to have email or smartphones.
- Institutions could force members to report upon system log-in.
- If reminders included messages about flu in the local area, I would be

- more likely to report.
 - I would be more likely to report if I were charged with recruiting other participants.
 - I think retention could be boosted by sending emails reflecting local trends to users who stopped reporting.
 - If I were told there was a hotspot in my area, I would be more likely to use the app.
 - Convenience is the biggest factor for me. If I'm able to report rapidly with the click of a button, I will. Otherwise, I won't.
 - I would be more likely to report because of reminders on social media. However, another message in my inbox would become an annoyance.
 - The app could encourage users to report more frequently by awarding "badges" to frequent reporters.
 - If you report symptoms, the app should share some useful information to you about nearby clinics.
 - If you report symptoms, FNY could send you a "gift" like those given on Facebook (e.g. bowl of chicken noodle soup, etc.). Conversely, you could be given a badge for not catching the flu during flu season. Such features would make the app more fun and engaging.
 - People's sense of civic engagement and social responsibility are key to retention. Users should be encouraged to report in order to keep their communities healthy.
 - Users with young children will be more likely to report because they will be concerned about their offspring. Parents would also be more interested in wanting to see flu in their local area.
 - The app may be more engaging if the map were animated and showed the development of trends over time.
 - There should be a heat map option. It would be more visually appealing.
4. **FNY is a participatory surveillance tool. How do you feel about sharing information for flu prevention? What kind of similar applications have used?**
- I wouldn't be concerned about reporting my symptoms. As long as it is anonymous, sharing is fine.
 - I have a fitness app that I rarely use but I share my workout information when I do use it.
 - I use the Life 360 app because it informs of me of crimes and predators in my area. I want to know about potential safety concerns near me.
 - During the aftermath of Hurricane Sandy, the Mapper-K app was found to be useful because it allowed users to report what gas stations had

gas available. A group of friends and I discussed that the Mapper-K app may be useful in New Orleans if users reported the locations of potholes or broken streetlights.

- UBER and Where's George?; however, both provide immediate gratification.

5. **What do you think of the FNY graphics?**



- I had to be told that the symbol was a flu virus. I thought it was simply a funky symbol. It could be more direct.
- I think it is a positive that the flu virus isn't "too cute" or anthropomorphic. Flu shouldn't be too attractive.
- I can't think of better graphics. When I think of the flu, no good images come to mind.
- The graphics are simple and appealing.

6. **What do you think of the following FNY messages? ("Do you have it in you?"; "Be a scientist in your community!"; "Make your data influential!"; "Putting the Public in the Public Health.")**

a. **Can you think of any messages that would work better?**

- I feel that "Be a scientist in your community!" is misleading. I would ultimately be let down if that was the message that motivated me to download the app.
- "Make your data influential!" is misleading. The data is not particularly valid.
- Emphasis should be added as such: "Make your data **influential**!"
- The concept of 'data' does not speak to the general public. The message may be better if it simply read: "Be **influential**."
- "Did you know?" type messages may raise awareness and pique interest in using the app.
- "Do you have it in you?," "Putting the Public in Public Health," and "Be **influential**" elicited the most positive responses.

7. **What strategies would you recommend for increasing uptake on campus?**

-
- Messages should be added to the ticker featured on the monitors in the hallways.
 - Messages should be attached to the vending machines and microwaves.
 - Because of the high interest in “crime alerts,” it might be effective to include messages in those emails.
 - Partnering with SGAs may be effective for outreach.
 - Messages should be featured in restrooms. Everybody frequents the restroom and there is little distraction.
 - People are more likely to engage with a message when they are sitting down.
 - Provide stickers to those who sign up at tabling events.
 - Tabling at the gym may be effective because the clientele is health conscious.
 - If it participating were somehow evocative of school pride or a way to promote LSUHSC, more people may be interested in signing up.
 - If a competition was made between schools LSUHSC, that may increase engagement.
 - People are looking for a distraction in the library, so it may be good place for outreach.
8. **What kinds of giveaway products would you take/use?**
- Pens, hand sanitizers, chapstick, tissues.

Students Questions and Responses

November 15, 2014

1. Would you sign up for Flu Near You?

a. Why?

- Awareness of flu in area, take necessary precautions
- Safety for others
- Easy and cost-effective tracking
- Flu-shot awareness & motivation
- Public health students
- Vaccine finder
- Helpful information on prevention or vaccine preparedness

b. Why not?

- Extra apps on phone is a deterrent
- Direct benefits are difficult to see
- Don't want to know
- Weekly reminder could be annoying or ignored

2. What would motivate you to download the app?

- Interested in number of users/reporting in the area, level of participation
- Notification of flu prevalence in area
- Awareness of severity of flu or flu facts
- Flu prevention information

3. How concerned are you about getting the flu?

- Never had it (low)
- Received vaccine (presently low but flu-aware)

4. If you downloaded the app would you report symptoms each week?

- Not each week
- If I had symptoms
- If a dialogue box popped up on phone to enter symptoms without physically entering the app
- Yes, because it's easy
- Push notification or email should directly ask if you've had symptoms

5. FNY is a participatory surveillance tool. How do you feel about sharing information for flu prevention?

LSUHSC School of Public Health • January 14, 2015

8

- No problem with sharing information
- No personal information disclosed, especially comparison to other social media sources

6. What kinds of similar apps have you used?

- Waze - traffic tracking (used by Google)
- Foursquare alerts you to friends nearby

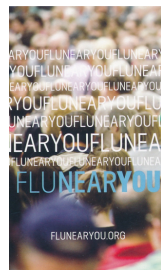
7. Among your family, friends, and coworkers, is there a specific person you can think of who is most likely to use FNY?

- Germophobes
- Parents concerned with their parents' or kids' safety
- Healthcare workers
- Smartphone/tablet users
- Unfamiliarity with Healthmap might be a deterrent. Awareness of involved public health entities might encourage use.

8. What do you think of FNY graphics?



- Like it - clean and simple. Catchy, well thought out.
- The “f” is similar to facebook, which is appealing.
- The germ is cute.



- Don't like it
- Creepy
- Confusing
- Appeals to younger generation - the style of graphics

-
- The crowd image invokes fear - compelling
 - Font color that pops more would work nicely
9. **Can you think of any images/graphics that would work better?**
- To put the app symbol on the logo so people know there's an app they can download at the app store.
10. **What do you think of FNY messages?**
- "Do you have it in you?" - sexualized out of context [0] but liked with logo
 - All of them are scientific and data compelled, which excludes less-educated populations or people who aren't scientific
 - Less technical messaging for general public
 - "Be a scientist in your community" - least favorite [0]
 - "Make your data InFLUential" - most liked (could change *data* to *symptoms* to make less technical) [10]
 - "Data" is intimidating or boring
 - "Putting the public in Public Health" - oriented toward the LSUHSC School of Public Health students [2]
11. **What kind of outreach has engaged you on campus or in similar settings?**
- Less text is better/keep it simple for the tough LSUHSC audience
 - For tabling, free food or giveaways, some sort of display. Places: bottom of MEB, atrium, gym late afternoon
 - Using professors in school setting
 - Flyers in bathrooms
 - Contest to promote retention - Prizes for users: pizza & beer, bar-tab, gift certificate to coffee shop
12. **What kinds of free giveaway products would you take/use?**
- coffee cups, chapstick, pens, koozies, hand sanitizer, water bottles, digi-clean, post-its, stickers on hand-sanitizers, to-go cups, tissue pack, tote bags
13. **How do you feel about sharing FNY on social media?**
- Simple game on Facebook, like a Pac-man eating germs or Snake
 - Would scroll over and ignore flu-related things
 - Would respond to a celebrity face (like Drew Brees) promoting
 - Picture of local FNY map would be motivating

-
- Generally, images and pictures, but not words would appeal
14. **As public health students, is there any other way you would like to see this technology applied?**
- Foodborne illness/outbreaks, sanitation at restaurants, etc.
 - Could promote fear around disease

Discussion

Members in both groups were concerned that the FNY app does not have direct, personal benefits, which was cited as a strong motivating factor for using the app. However, as public health professionals and students, the groups were also amenable to the scientific benefits of reporting symptoms. Given the healthcare professional base of the LSUHSC population, we are going to emphasize the civic engagement aspects of FNY - motivation to use the app will be based on protection and promotion of the health in the community. However, we will attempt to address individualistic societal values at the same time by emphasizing the larger impact we can all make with individual contributions.

Further, we will fine tune our action plan to address the suggestions made for methods of outreach. The giveaways we provide during tabling events and other presentations will be selections from the focus group responses, including koozies, pens, and hand sanitizers.

Finally, the focus groups provided helpful recommendations for ways in which the app and website might be made more appealing to the public, increasing retention. These include user-friendly improvements, such as alterations in the push-notification reporting and the frequency of reporting, as well as content changes, such as providing information on flu prevention to make the app more relevant to individuals.

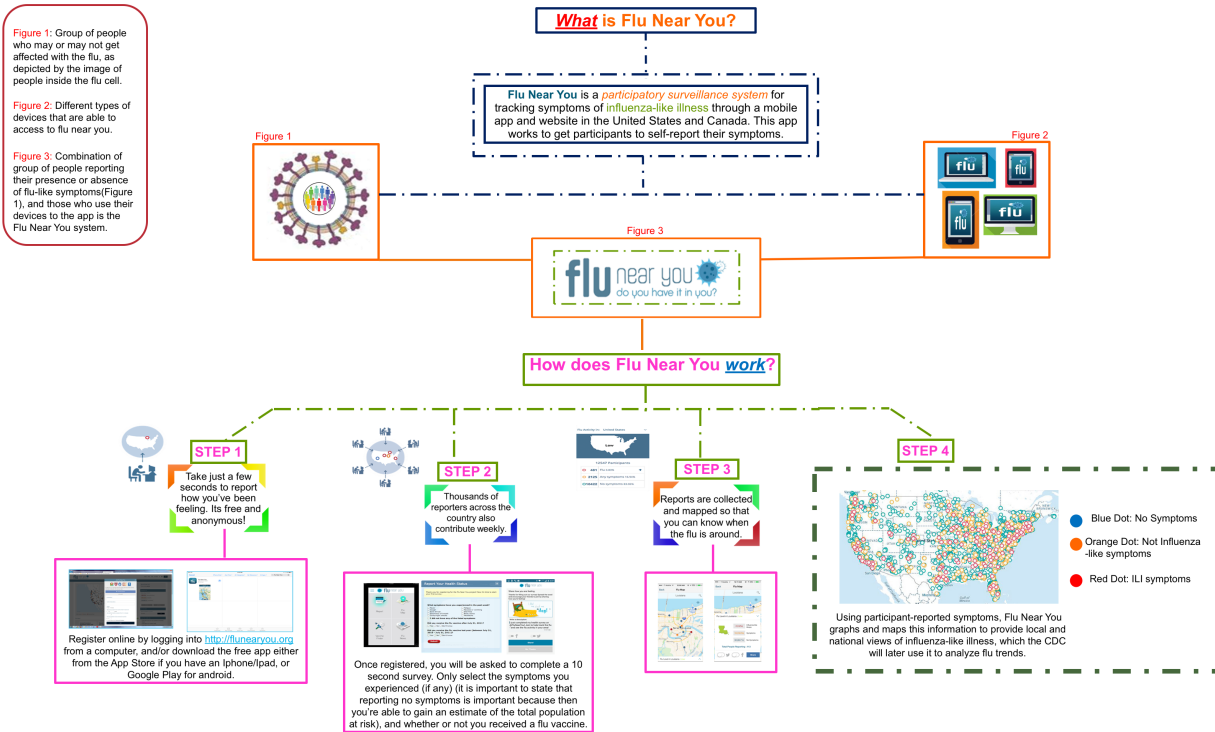
Conclusion

The two focus groups were very useful in determining what marketing and outreach aspects of Flu Near You would elicit a positive response in each group. We compared the results and revised our action plan to address the responses common to both groups.

Rather than marketing to the personal benefits, we will appeal to the “larger contribution” the LSUHSC population will be making by using the app. The message we have chosen for outreach to this population is “Be InFLUential.”

Flu Near You: A Participatory Surveillance System in the Digital Age

Bhattacharjee, Prema (MPH Candidate), BS; Dominguez, Olivia (MPH Candidate), BS; Meyer, Jasmine (MPH Candidate), BA, DTR; Straif-Bourgeois, Susanne, PhD, MPH and Kaufman, Randi, DrPH



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To learn more about **flu prevention**, please visit www.flunearyou.org



Acknowledgements

To Skoll Global Threats Fund for making the Flu Near You program possible.



BE GOOD TO YOUR HEART GET A FLU SHOT!



Did you know?

Those with a **heart condition** have a greater risk of becoming more seriously ill from the **flu** than the general population, according to the **American Heart Association & US Centers for Disease Control and Prevention (CDC)**.

50% of Americans

hospitalized with the flu during the 2014-2015 flu season had **heart disease**.



Heart patients are 4 times more likely to get a **heart attack** with the flu.

Viral infections like the flu

adds stress on the body, which can affect blood pressure, heart rate, and overall heart function.



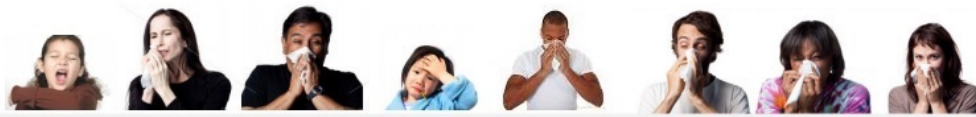
Flu vaccine lowers

the risk of heart attack, stroke, heart failure by **20%**, CDC reports.



To learn more about the flu, please visit www.flunearyou.org





Help us spread the word, not the flu!

1 in 5
People in the U.S.
will get the flu

200,000
or more will
be hospitalized

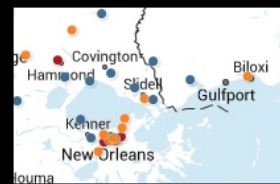
36,000
will die from it

**What can you do
to prevent this?**

Parents and teachers understand the importance
of rapid detection and early response.

That's why we're partnering with **FluNearYou.org**

a website and mobile app that provides real-time flu tracking and
monitoring. You can help prevent the spread of influenza by
answering two questions a week.



See flu activity in your area!

It's fast, free, confidential and the future of disease detection!

Spanish Flu
50-100
million
killed

Hong Kong
Flu
1 million
killed

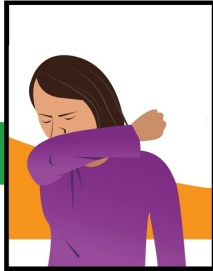
If each **one** of us signed up, **all of us** could be healthier.
Join **FluNearYou.org** today!

flu near you
do you have it in you?



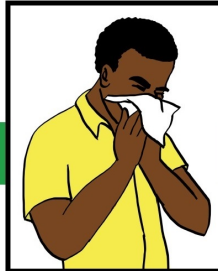
TWO ACTIONS TO FIGHT THE FLU

#1 COVER YOUR COUGH or SNEEZE!

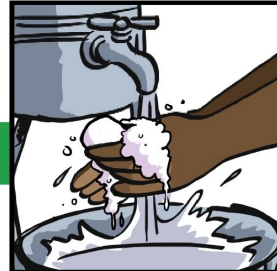


Cough or sneeze into
your arm.

or



Use a tissue and then
throw away...



...then wash your
hands.

#2 TRACK THE FLU IN YOUR COMMUNITY!



Social Marketing Reference Guide

**Nancy Lee
Philip Kotler**

SOCIAL MARKETING

**QUICK
REFERENCE
GUIDE**

Influencing Behaviors for Good

DEFINITION

"Social marketing is a process that applies marketing principles and techniques to create, communicate, and deliver value in order to influence target audience behaviors that benefit society (public health, safety, the environment, and communities) as well as the target audience." Philip Kotler, Nancy Lee, and Michael Rothschild, 2006

Similarities to commercial marketing include:

- Exchange theory is fundamental
- Customer-orientation is critical
- Audiences are segmented
- All 4Ps are considered
- Market research is key to success
- Results are measured for improvement

In commercial marketing, however:

- Financial versus societal gain is the goal
- Competitors are other similar organizations

TEN STEPS IN THE PLANNING PROCESS

See Reverse Side for Detailed Descriptions of Each Step

Step #1. Describe the Background, Purpose and Focus for the Planning Effort
Step #2. Conduct a Situation Analysis
Step #3. Select and Describe the Target Audience
Step #4. Set Marketing Objectives and Goals (Behavior, Knowledge, Beliefs)
Step #5. Identify Audience Barriers, Benefits and the Competition
Step #6. Craft a Desired Positioning Statement
Step #7. Develop a Strategic Marketing Mix (The 4Ps)

- Product
- Price
- Place
- Promotion

Step #8. Determine an Evaluation Plan
Step #9. Establish a Campaign Budget and Find Funding
Step #10. Outline an Implementation Plan

Although steps appear linear in theory, they are actually spiral in reality with each step subject to revision as the process unfolds.

GUIDING THEORIES

Stages of Change Model describes six stages that people go through in the behavior change process.

Social Norms Theory is based on the central concept that much of people's behavior is influenced by their perceptions of what is "normal" or "typical."

Health Belief Model emphasizes target audiences are influenced by perceived personal susceptibility and seriousness of the health issue, and benefits, barriers and cues to action for the desired behavior.

Theory of Reasoned Action /Theory of Planned Behavior suggests the best predictor of behavior is intention to act and this intention is influenced by perceived benefits, costs and social norms.

Social Cognitive Theory states that likelihood of adopting the behavior is determined by perceptions that benefits outweigh the costs and belief in self-efficacy (ability to perform the behavior).

Exchange Theory postulates that in order for an exchange to take place, target markets must perceive benefits equal to or greater than perceived costs.

Behavioral Economics Framework helps explain how environmental and other factors prompt personal decisions and that we do not always behave rationally.

APPLICATIONS

Most social marketing efforts are applied to:

Improving public health (e.g. HIV/AIDS, tobacco use, obesity, teen pregnancy, tuberculosis)

Preventing injuries (e.g., traffic collisions, domestic violence, senior falls, drowning)

Protecting the environment (e.g., water quality, air quality, water conservation, habitat protection)

Contributing to communities (e.g., voting, spaying and neutering pets, volunteering, crime prevention)

Enhancing financial wellbeing (e.g. saving for retirement, living within a budget, having a checking account)

THE ROLE FOR RESEARCH

Market research has a role to play when developing each step and properly focused research can make the difference between a brilliant and mediocre plan.

Formative Research is used to help select and understand target markets and develop draft marketing strategies. It may be new research (primary data) that you conduct, or it may be research conducted by someone else that you are able to review (secondary data).

Pretest Research is conducted to evaluate a short list of alternative strategies and tactics, ensure that potential executions have no major deficiencies, and fine-tune possible approaches so that they speak to your target audience in the most effective way.

Monitoring Research provides ongoing measurement of program outputs and outcomes, often used to establish baselines and subsequent benchmarks relative to goals.

Evaluation Research, as distinct from monitoring, is research that supports a final assessment of the campaign.

UPSTREAM & MIDSTREAM & DOWNSTREAM

Downstream social marketing focuses on influencing individual behaviors while midstream social marketing focuses on influencing those "closer" to the target audience (e.g. friends, family, teachers, healthcare providers) and upstream social marketing focuses on influencing policy makers, media, corporations and other social influencers. The same ten step process is applicable for each.

PRINCIPLES FOR SUCCESS

1. Take advantage of prior and existing successful campaigns.
2. Start with target audience most ready for action.
3. Support and promote single, doable behaviors with significant potential impact.
4. Identify and remove barriers to behavior change.
5. Bring real benefits into the present.
6. Highlight costs of competing behaviors.
7. Promote a tangible good or service to help target audiences perform the behavior.
8. Consider non-monetary incentives in the form of recognition & appreciation.

9. Make access easy.
10. Have a little fun with messages.
11. Use media channels at the point of decision making.
12. Try for popular/entertainment media.
13. Get commitments and pledges.
14. Use prompts for sustainability.
15. Create plans for social diffusion.
16. Track results and make adjustments.

SOURCE: *Social Marketing: Influencing Behaviors for Good*, Fourth Edition Nancy R. Lee and Philip Kotler (SAGE 2011)
Contact: Nancy Lee at: WWW.SOCIALMARKETINGSERVICE.COM OR Nancyrlee@msn.com Copyright Social Marketing Services Inc. 2012

PLANNING PROCESS STEP DESCRIPTIONS

#1. BACKGROUND, PURPOSE, FOCUS

Note the **social issue** the plan will be addressing (e.g., obesity), including a statement of the problem. Summarize factors that led to the development of the plan.

Then develop a **purpose** statement that reflects the benefit of a successful campaign (e.g., reduce obesity) and a **focus** that narrows the scope of the plan's purpose to one the plan will address (e.g., physical activity).

#2. SITUATION ANALYSIS

Relative to the purpose and focus of the plan, describe the factors and forces in the internal and external environment that are anticipated to have some impact on planning decisions.

Factors and Forces Influencing Your Target Market and Your Effort

Organizational Factors

(Strengths & Weaknesses)
Resources
Past Performance
Current Alliances and Partners
Service Delivery
Internal Publics

Environmental Forces

(Opportunities & Threats)
External Publics
Political/Legal Forces
Economic Forces
Natural Forces
Demographic Forces

#3. TARGET AUDIENCE

The **bull's-eye target audience** for your marketing efforts is selected and described. A marketing plan ideally focuses on a primary target audience, although additional secondary audiences are often identified and strategies are developed for them as well.

This is a 3 step process:

1. Segment the market.
2. Evaluate segments.
3. Choose one or more as a focal point.

#4. MARKETING OBJECTIVES & GOALS

Social marketing plans always include a **behavior objective** – something you want to influence the target audience to do. **Knowledge** objectives include information or facts you want the market to be aware of – ones that might make them more likely to perform the desired behavior.

Belief objectives relate more to feelings and attitudes.

#5. BARRIERS, BENEFITS, COMPETITION

Barriers are reasons your target audience cannot (easily) or does not want to adopt the behavior.

Benefits are reasons your target audience might be interested in adopting the behavior or what might motivate them to do so.

Competitors are behaviors your target audience prefers or organizations that support or promote "undesirable" behaviors.

	Desired Behavior	Competing Behavior
Barriers/Costs		
Benefits		

#6. POSITIONING STATEMENT

Positioning is the act of designing the organization's actual and perceived offering in such a way that it lands on and occupies a distinctive place in the mind of the target market – where you want it to be. Fill in the blanks to: "We want (TARGET AUDIENCE) to see (DESIRED BEHAVIOR) as (DESCRIPTIVE PHRASE) and as more beneficial than (COMPETITION).

#7. STRATEGIC MARKETING MIX (THE 4PS)

PRODUCT

A product is anything that can be offered to a market to satisfy a want or need. In social marketing, major product elements include:

- Core benefit of behavior
- Goods or services you promote for adoption
- Additional product elements to assist in behavior adoption

PRICE

Price is the cost that the target market associates with adopting the desired behavior. Pricing-related strategies to reduce costs and increase benefits include these 6:

1. Increase monetary benefits for the desired behavior
2. Decrease monetary costs for the desired behavior.
3. Increase non-monetary benefits for the desired behavior.
4. Decrease non-monetary costs for the desired behavior.
5. Increase monetary costs for the competing behavior
6. Increase non-monetary costs for the competing behavior.

PLACE

Place is where and when the target market will perform the desired behavior, acquire any related tangible objects, and receive any associated services. Options include:

- Physical locations
- Phone/Mobile devices
- Mail
- Fax
- Internet
- Mobile Unit
- Where people shop
- Where people hang out
- Drive-throughs
- Home Delivery/House Calls
- Kiosks
- Vending Machines

PROMOTION

Promotions are persuasive communications designed and delivered to inspire your target audience to action. At this step you determine **messages, messengers, creative strategies, and communication channels**.

Major social marketing communication channels include:

- Advertising
- Public Relations
- Special Events
- Printed Materials
- Special Promotional Items
- Signage and Displays
- Personal Selling
- Social Media
- Popular/Entertainment Media

#8. EVALUATION PLAN

An evaluation plan outlines why you will be evaluating, what will be measured, how and when. What is measured often falls into one of the categories below:

Inputs	Outputs	Outcomes	Impact	Return on Investment
Resources allocated to the campaign or program effort	Program activities conducted to influence audiences to perform a desired behavior	Audience response to outputs	Indicators that show levels of impact	Improvement in social condition

#9. BUDGET

Identify price tags for strategies and activities with cost-related implications.

- Product-related costs
- Price-related costs
- Place-related costs
- Promotion-related costs
- Evaluation-related costs

#10. IMPLEMENTATION PLAN

The implementation plan functions as a concise working document to share and track planned efforts. Most commonly, plans represent a minimum of 1-year activities, and ideally 2 or 3 years.

WHAT	WHO	WHEN	HOW MUCH

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LSUHSC Outreach Event Log

EVENT LOG

Date and Time:
Venue:
Description:
Ambassador(s):

of Individuals Engaged (Provided Info):
of Individuals Registered for FNY/Contest:
of Flyers Dispersed:
of Pens Dispersed:
of Koozies Dispersed :
of Sanitizers Dispersed:

Pluses (What Went Well):
Deltas (What Needs to Be Changed/Improved):
Additional Comments:



Jasmine Meyer, DTR; Randi Kaufman, DrPH; Susanne Straif -Bourgeois, PhD, MPH; Prema Bhattacharjee; Olivia Dominguez; Nick Payne, MPH

HealthMap
skoll global threats fund
LSUHealth
Boston Children's Hospital

Presentation Outline

I. Influenza Virus

- Flu in Public Health (PH)?
- Influenza Surveillance
- Limitations

II. Disease Surveillance in the Digital Age

- Define Disease Surveillance
- Technology

III. Flu Near You (FNY)

- Background and Vision
- Traditional vs. Participatory Surveillance
- Participatory Surveillance History
- Downloading the App

IV. FNY Contest

Influenza Virus

Influenza Virus

Most healthy adults can infect others **one day before symptoms develop up to five days after symptoms appear?**

- CDC estimates that 5-20% of U.S. residents get the flu each year
- Influenza season starts officially on October 1 and goes through March 30 with peaking in January to February but is important to report year round because of the 2009- 2010 H1N1 Swine Flu pandemic



cdc.gov

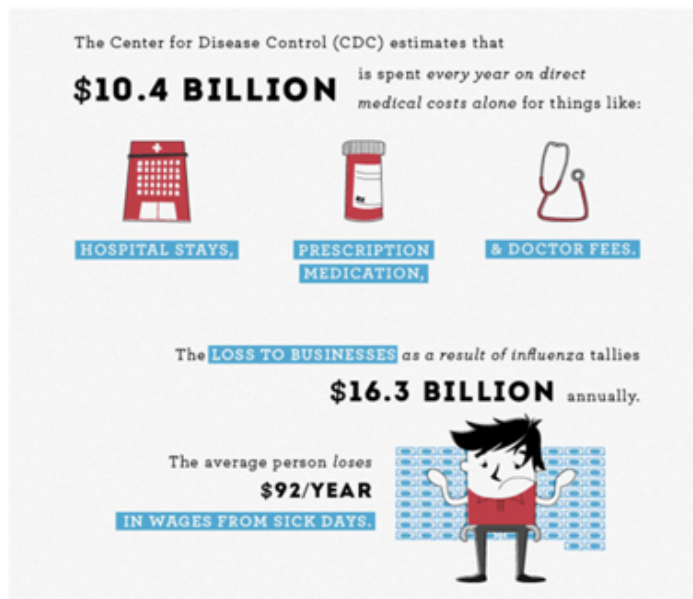
Severity

On average more than **200,000 people** in the United States are hospitalized each year for respiratory and heart conditions illnesses associated with seasonal influenza virus infections

Flu-associated deaths in the United States range from a low of about **3,000** to a **high of about 49,000 people per year**

Americans especially children, seniors and persons with chronic health conditions are more likely to develop flu complications. These complications can include bacterial pneumonia, ear or sinus infections, dehydration, and worsening of chronic health conditions such as congestive heart failure, asthma, or diabetes.

cdc.gov



Source: "The Cost of Getting the Flu" by Frugal Dad

What is Surveillance?

- The ongoing, **systematic collection, analysis, and interpretation of health data** essential to the planning, implementation and evaluation of public health practice, closely integrated with the timely feedback of these data to those who need to know.

Why do we need Surveillance in PH?

- serve as an **early warning system** for impending public health emergencies
- document the **impact of an intervention**, or **track progress** towards specified goals; and
- monitor and clarify the epidemiology of health problems, to allow priorities to be set and to **inform public health policy and strategies**.

WHO.int

Types of Influenza Surveillance

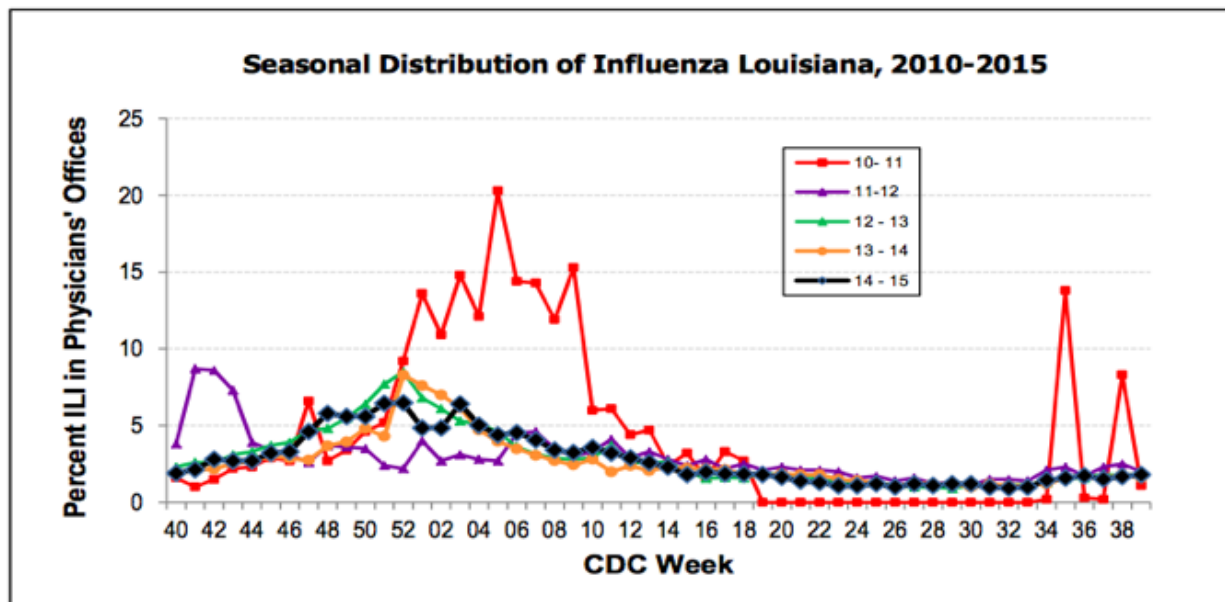
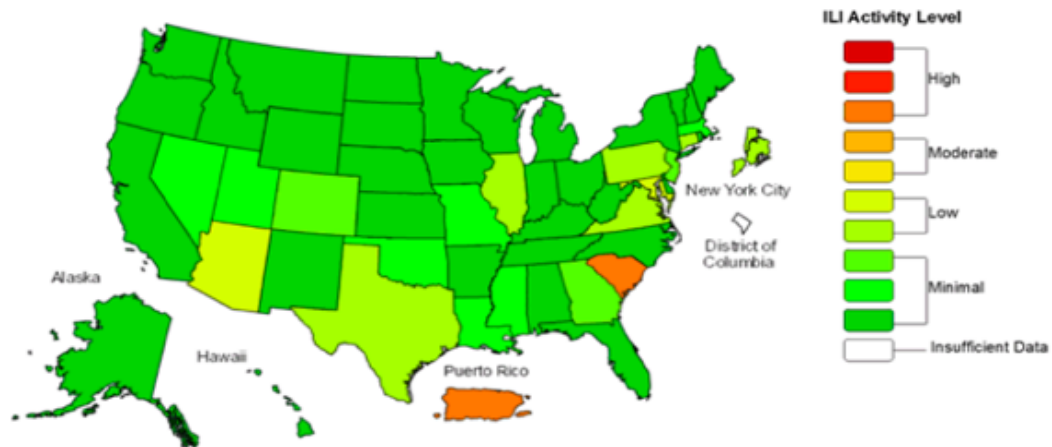
- Sentinel surveillance sites (hospital emergency department (ED), laboratories and physicians' offices) provide weekly data on

1. Influenza Like Illness (ILI)

2. Laboratory confirmed cases.

Influenza Like Illness (ILI)

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2015-16 Influenza Season Week 1 ending Jan 09, 2016



Laboratory Testing



- Many hospitals and physicians' offices do perform some influenza testing.
- Flu Vaccine is developed based on viral circulations the previous influenza year. Annual flu vaccine production starts in January after 3-4 strains are selected so that the licensed vaccine product can be released by September before the official flu season starts.

Limitations of current Influenza Surveillance systems

- Only an unknown proportion of persons seek medical care and this healthcare-seeking behavior might change over time
- time delay of reporting especially if rapid flu test was done

Real-time surveillance necessary for

- identifying PH emergencies especially if very localized
- optimizing allocation of resources to respond to them
- devising mitigation and containment measures



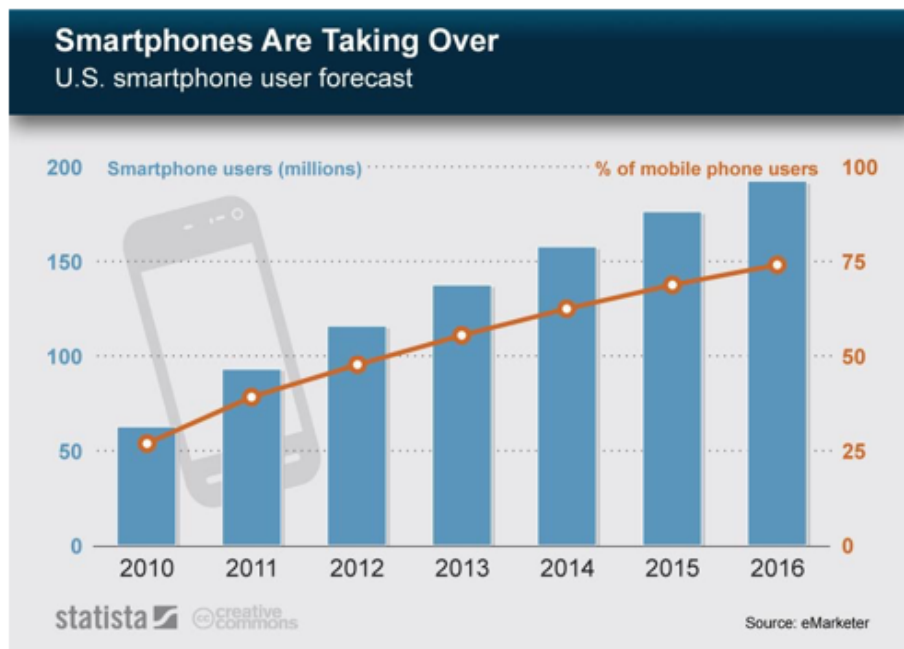
Disease Surveillance in the Digital Age



Influence of Technology on Disease Surveillance

- transforming the way both public health and healthcare professionals are able to track and prepare for disease outbreaks
- convenient and easily accessible
- provides information that is unavailable through traditional surveillance sources.
- identifying risk factors





#swineflu

- The use of Twitter as an early warning detection



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NEWS

Page last updated at 20:51 GMT, Thursday, 11 June 2009 21:51 UK

[E-mail this to a friend](#) [Printable version](#)

WHO declares swine flu pandemic

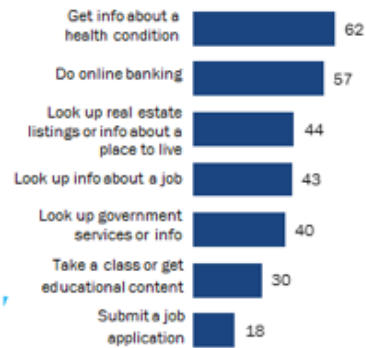
Or Chan said the pandemic would be of "moderate severity"

The World Health Organization (WHO) has declared a global flu

Obtained from: <http://news.bbc.co.uk/2/hi/health/8094655.stm>

More than Half of Smartphone Owners Have Used Their Phone to get Health Information, do Online Banking

% of smartphone owners who have used their phone to do the following in the last year



Pew Research Center American Trends Panel survey, October 3-27 2014.

PEW RESEARCH CENTER

History of Participatory Surveillance

What is Participatory Surveillance?

- Participatory surveillance systems crowdsource voluntarily submitted symptom data from the public and can aggregate and communicate that data in near real-time.

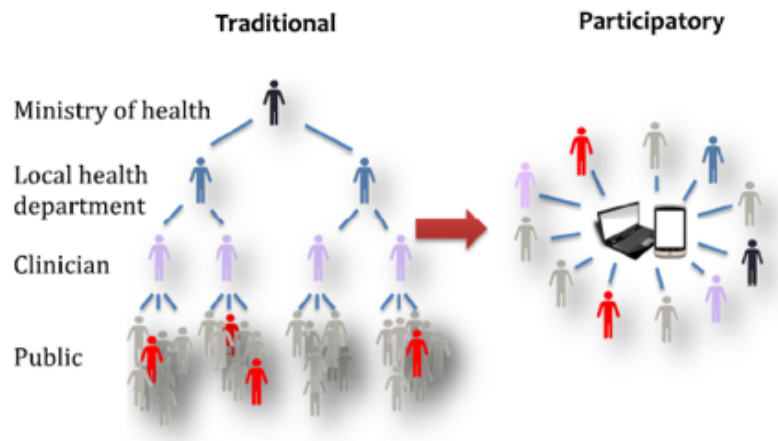
Oktawia P. Wojcik, et al, Emerging Themes in Epidemiology, 2014

What is Crowdsourcing?

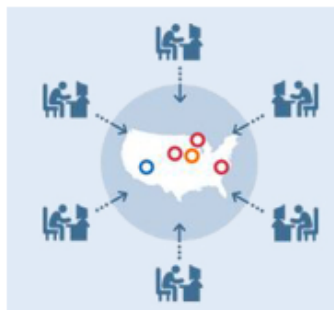
- Crowdsourcing is an open call for anybody to participate in a task online, where the *crowd* refers to an undefined group of people who participate.

Daren C. Brabham, PhD, University of Southern California

Traditional vs. Participatory Surveillance



Flu Near You (FNY)



Flu Near You! Program

- FNY is participatory surveillance system for **tracking symptoms** of influenza-like illness through a mobile app and website in the United States and Canada
- The Flu Near You! Program works to get participants to self-report their symptoms

FNY toolkit

FNY Vision

- To **promote and protect the wellbeing of individuals**, and their communities by having them engage in disease surveillance
- To allow individuals to report symptoms in **real-time** can complement traditional tracking while providing useful information directly to the public
- To provide the public with the resources, and guidance they need to better track and **monitor the spread of diseases** amongst themselves, and in their communities

flunearyou.org

How it works

- Weekly Self-Reporting
 - App: push notification
 - Online: email reminder
- Select and Submit Symptoms
 - Opt into share with social media
- View Map and other Data Anytime
- Your report card
- Other Resources



Report Your Health Status

Thank you for registering for the Flu Near You project! Now it's time to start your first survey.

What symptoms have you experienced in the past week?

<input type="checkbox"/> Fever	<input type="checkbox"/> Fatigue
<input type="checkbox"/> Cough	<input type="checkbox"/> Nausea or vomiting
<input type="checkbox"/> Sore throat	<input type="checkbox"/> Diarrhea
<input type="checkbox"/> Shortness of breath	<input type="checkbox"/> Body aches
<input type="checkbox"/> Chills/night sweats	<input type="checkbox"/> Headache

☐ I did not have any of the listed symptoms

Did you receive the flu vaccine after July 31, 2011?

☐ Yes ☐ No ☐ Don't know

Did you receive the flu vaccine last year (between July 31, 2010 - July 31, 2011)?

☐ Yes ☐ No ☐ Don't know

Submit

week ending: 10/22/2011

Map and Data Page: Terms of Use

flu near you

Share how you are feeling.

Thanks for filling out our survey! Spread the word and encourage your friends to join by sharing how you're feeling!

I AM as sick as a dog! >

Write a description:

I just completed my health survey on @FluNearYou! Join to help track the flu - and see the flu activity in your area!

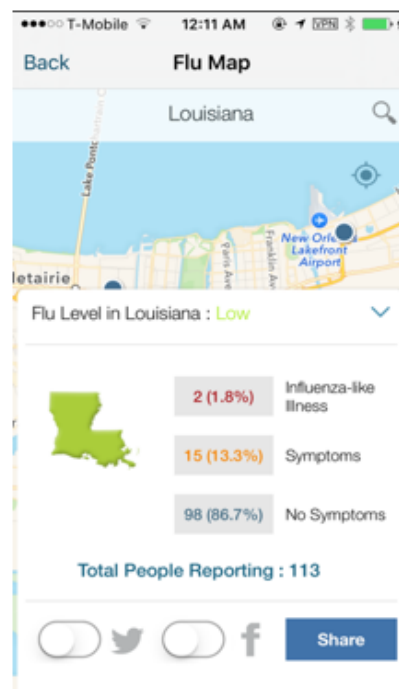
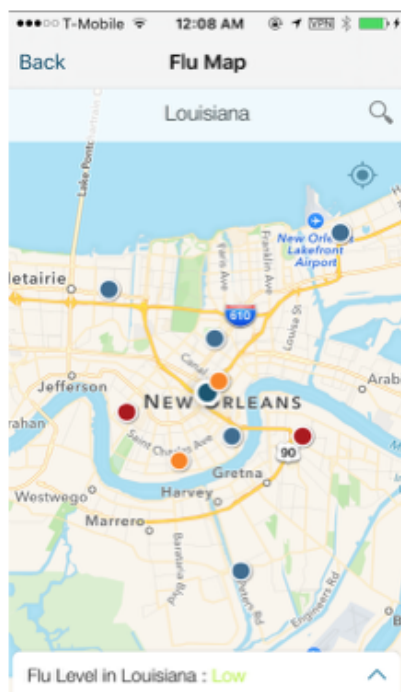
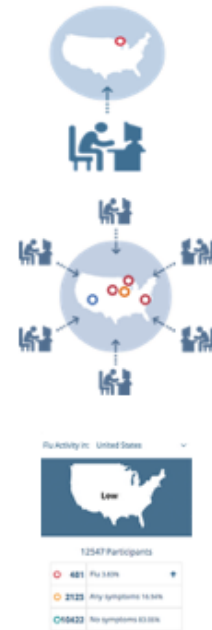
117/140

Share!

No, Thanks

How it works

- Weekly self-reporting
 - App: Push notification
 - Online: Email Reminder
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- View map and other data anytime
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- Other Resources



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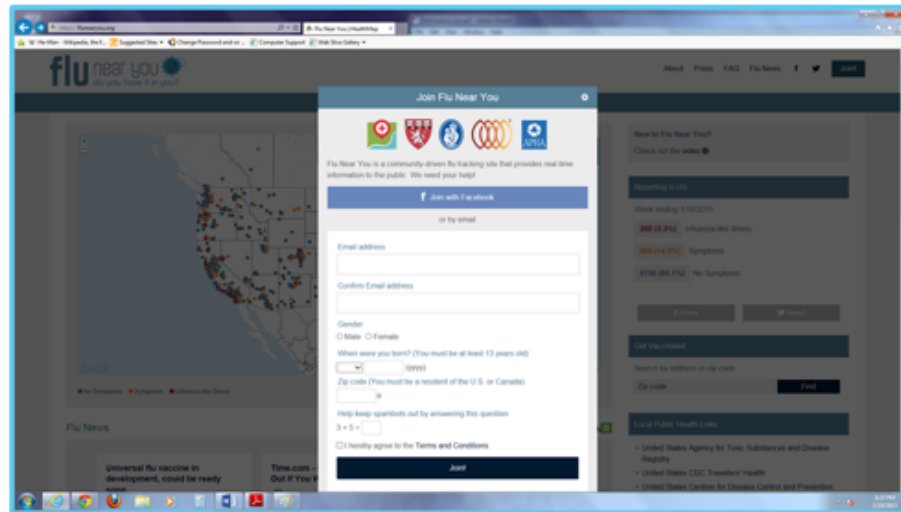
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- Weekly self-reporting
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- Other Resources



How do I join?

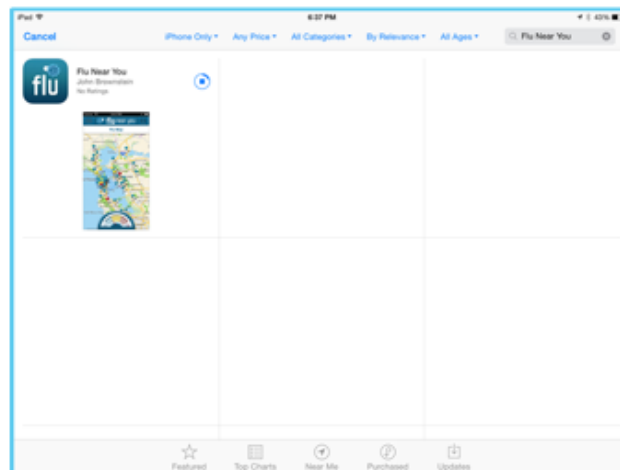
1. Register Online by Computer at FluNearYou.org



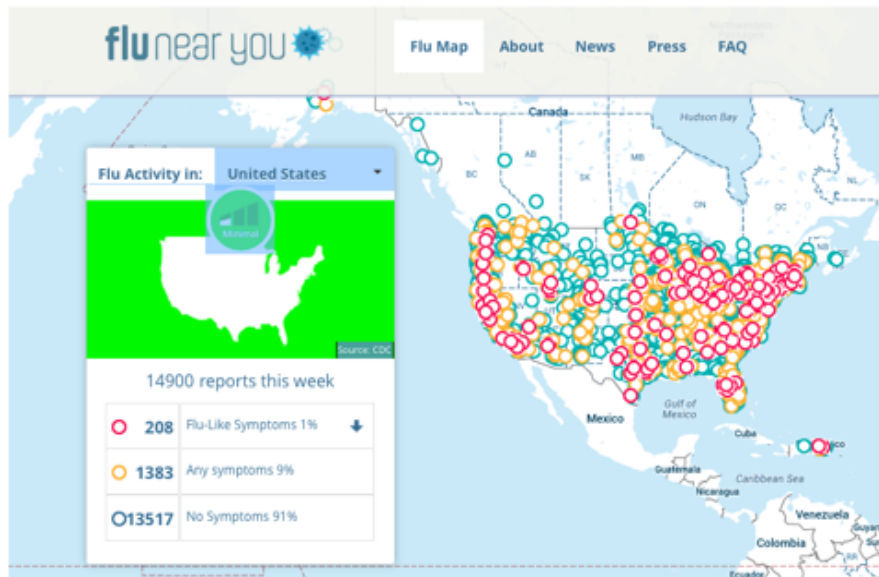
How do I join?

2. Register Online by Ipad or Mobile Device at Flu Near You

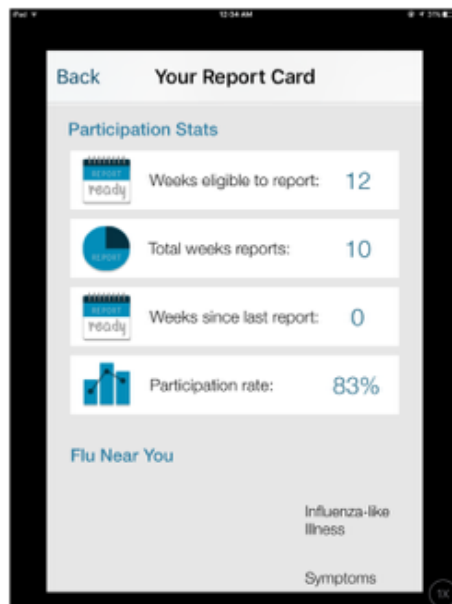
- Go to the App Store on the iPhone or Google Play on Android devices and search for "Flu Near You."



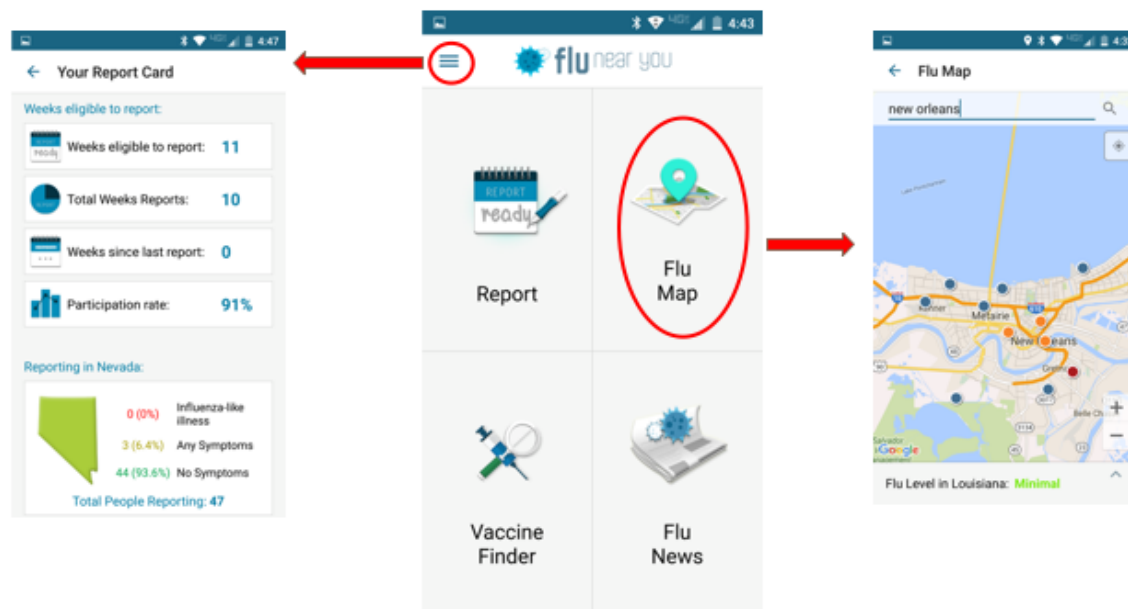
Computer version



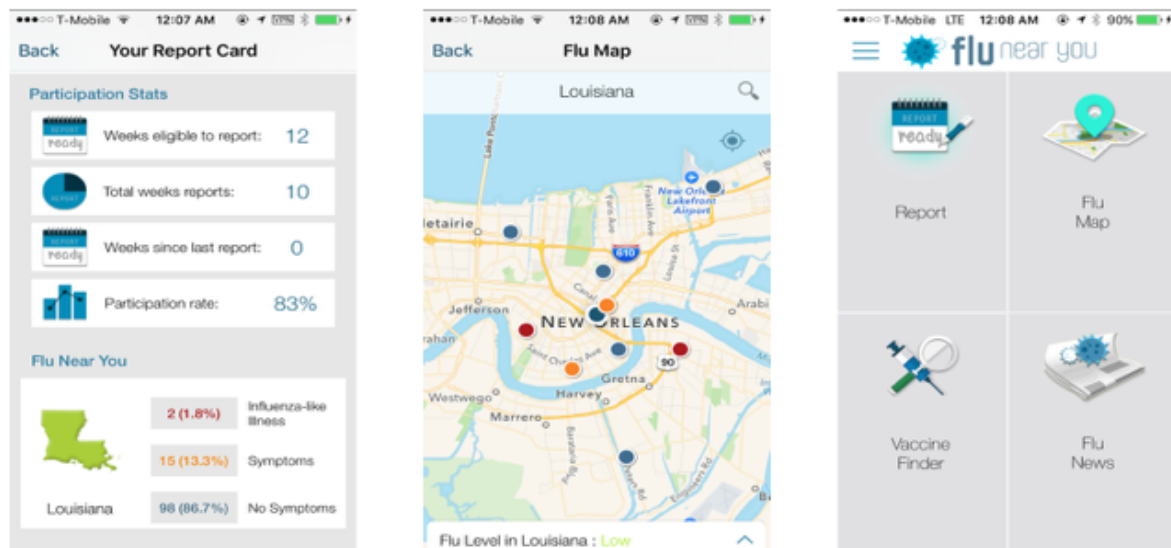
I-Pad version



Smart phone app (Android)



I-phone version



FNY Contest



Terms of Contest

Duration - Feb 1 - April 15

- A. The school with the highest number of entries wins
- B. Qualifying entries:
 - a. Current users are eligible to submit an entry.
 - b. New users (after January 19th) can enter if they have a minimum of 4 reports and at least 75% participation.

Terms of Contest

Duration - Feb 1 - April 15

- A. Anyone can participate in the contest - their points will be assigned to one of 4 schools of public health. You are encouraged to get as many people to sign up as possible
- B. The survey for entering points will be open from April 11 - 15
- C. The winning SPH SGA receives a large prize, with the caveat that school students will be able to vote on its use

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- <https://flunearyou.org/?campaign=GAads&gclid=Cj0KEQIA2b20BRDj4budulG-y9EBEIQAhgMGFfwC3TqYdOlipW6iOzCYXqLvaMkAPDa55EnOzd0duiwaAnld8P8HAQ>

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