Kentucky Cabinet for Health and Family Services Department for Public Health

Pictogram Research and Development 2008 FINAL REPORT

Submitted by Jane Mobley Associates October 2008

TABLE OF CONTENTS

Executive Summary	1
Description of Pictogram Research and Development	3
Detailed Research Findings	8
Conclusions and Recommendations	26
Attachment 1	27
Attachment 2	46
Attachment 3	50
Attachment 4	54
Attachment 5	59

EXECUTIVE SUMMARY

The Kentucky Cabinet for Health and Family Services/Department for Public Health (CHFS/DPH) completed the second consecutive year of developing and testing pictograms for use at points of dispensing (PODs) and mass care clinics. The purpose of the pictograms is to assist way-finding and public flow through PODs by using pictures to communicate with people who may be challenged by understanding written or spoken English (e.g., limited English proficient, deaf or hard of hearing).

The pictogram work conducted in 2008 was a continuation of last year's work. The primary goals were to:

- Determine additional messaging needs;
- Expand the pictogram package to include a set of pictograms for drive-thru PODs, as well as additional pictograms for the walk-in PODs;
- Develop pictogram signage for PODs that can be customized by the end user;
 and
- Test new and revised pictograms/signage with the target populations at influenza (flu) clinics and in focus groups.

The research for this project included two-phases:

- Focus groups conducted with limited English proficient (LEP) populations in May 2008; and
- o Surveys conducted at walk-in and drive-thru flu clinics in October 2008.

The findings from the research supported the comprehensibility of the pictograms and the design quality. The pictograms were easy for participants to understand and effective in conveying the intended messages. Key findings from the research included:

- Rx is not a universally recognized symbol.
- Certain phrases commonly used in English can be confusing to non-native speakers (e.g., "Turn in" versus "Return").
- People of all cultures may define "family" differently.
- The prohibitive symbol is universally recognized across many cultures and ethnic backgrounds.

- Incorporating the vest on some of the figures in the pictograms indicated to participants they were authority figures.
- The majority of pictograms tested well, but written comments on the surveys suggested the following pictograms were confusing: Don't Change Lanes, Don't Leave Car, Drive-Thru Lane and Educational Information.
- Signs are more effective when they are simple and limited to one pictogram per sign. Including more than one pictogram on a sign can have a negative impact on comprehension of the message.
- Pictograms that were included in the flu clinic survey, but not actually used in the flu clinic did not test as well as others.

DESCRIPTION OF PICTOGRAM RESEARCH AND DEVELOPMENT

Overview

The 2008 pictogram work was a continuation of last year's work, which included 13 pictograms for walk-in PODs that were tested in focus groups and surveys conducted with LEP and deaf and hard of hearing individuals. This year the project expanded to 27 pictograms, including a set for drive-thru PODs and additional messaging for walk-ins. The new pictograms were:

- Support counseling;
- Educational information;
- Medication for families with children;
- First aid;
- Enter here;
- Exit;
- No food or beverage;
- Don't change lanes;
- Put car in park;
- Don't leave car;
- Cars with children;
- Follow arrows and signs;
- Stop and wait; and
- Take 1 pill a.m./p.m.

An additional component to the project was the development of POD signage with the pictograms embedded as the predominant graphic image. In 2009, the signage will be available online to LHDs and other end users in multiple formats, including PDF, PowerPoint and jpeg files. The signage can be customized to include color-coded borders, logos and additional languages and will be available in several sizes, vertical and horizontal layouts. General recommendations for signage implementation that comply with ADA guidelines will be provided with the signage.

The CHFS/DPH pictogram project has the potential to become a national model – no other states have created pictogram signage specifically for use at PODs. The pictogram

project was featured in a satellite Webcast on Mass Antibiotic Dispensing: Engaging Atrisk Populations by the U.S. Centers for Disease Control and Prevention Division of Strategic National Stockpile. The project also received a bronze award at the 2008 National Public Health Information Coalition conference.

Research Process

The pictogram research included qualitative and quantitative research, including focus groups and surveys. The research targeted both the general public and LEP (low literacy and non-English speaking) individuals. The pictograms were tested with the general population because of the importance to fully understand their communication needs and the ways in which they create meaning out of communication tools that are primarily developed to meet the needs of at-risk populations. In an emergency, the communication capacity of <u>all</u> segments of the population likely will be compromised by fear and panic, thus inhibiting the ability to follow written or spoken instructions. It is critical that the pictograms meet the communication needs of all people in an emergency.

The primary research objectives were to:

- o Determine whether the pictograms were easy to understand;
- Establish which design elements were causing critical confusion and the necessary revisions to improve comprehension of the pictograms; and
- o Test the pictogram signage in a real-life context similar to a POD (e.g., flu clinics).

The symbols tested were not in final form, but were tested during different development phases. The findings from the research guided decision-making about subsequent revisions and testing.

Focus Groups

JMA conducted two focus groups with LEP students from English as a Second Language (ESL) classes offered through the Jefferson County Public Schools Adult and Continuing Education program in Louisville and Blue Grass Literacy in Lexington.

Focus group participants spoke a variety of languages and were from different countries, including:

- o Russia;
- o Japan;
- o China;
- o Chile;
- o Mexico;
- o Cuba; and
- South Korea.

KOIN members played an integral role in scheduling the focus groups and recruiting participants. They offered their ESL class time for the focus groups to ensure adequate time and student participation. One focus group was conducted completely in Spanish with an instructor translating the discussion.

The focus groups lasted approximately an hour and a half. A moderator led the discussions and JMA and CHFS/DPH staff assisted with note-taking responsibilities. Each participant received two packets of pictograms: one set of walk-in POD pictograms and one set of drive-thru POD pictograms (see *Attachment 1*). To begin, the moderator provided a context for the discussions by describing a POD, its purpose and where a POD would be located and the reasons pictograms would be used at a POD in an emergency.

The focus group discussion guide was modeled after a similar process that was used the previous year to test the pictograms. A copy of the discussion guide is included with this report as *Attachment* 2.

The initial plan was to have participants first write their interpretations of the pictograms and then follow with a group discussion; however, due to time constraints and other factors (e.g., language differences) the moderator shifted to a discussion-based format. Participants were asked to review each pictogram and talk about:

- What they thought the meaning of the pictogram was;
- o What actions they would take upon seeing it; and

What could be done to improve it.

The findings from the focus group discussions guided the subsequent revision process. Many of the participants' suggestions on how to improve the pictograms were incorporated in the revisions.

Survey

The pictograms were further tested in a quantitative survey administered at two flu clinics (one walk-in and one drive-thru) in October 2008. Participants completed the survey as they filled out their flu clinic registration forms. English and Spanish versions of the survey were made available to participants. In the drive-thru flu clinic, 1,102 English surveys and 33 Spanish surveys were completed (averaged approximately one survey per car). The walk-in flu clinic generated 288 surveys. The surveys are included in this report as *Attachment 3*.

The pictograms tested in the walk-in flu clinic included:

- Get a shot;
- Fill out form;
- Return form;
- Form line;
- Language translator;
- Interpreter/Sign language;
- Exit; and
- Enter Here.

The drive-thru flu clinic survey included the following pictograms:

- Don't change lanes;
- Put car in park;
- Drive-thru lane;
- Don't leave car;
- Cars with children; and
- Educational information.

The survey included questions to gather demographic data, such as age of participants, level of education, primary language spoken and race/ethnicity. Other questions focused on whether the signs were noticeable and helped people know where to go and what to do. The questions about the pictograms tested for comprehension and design quality to determine whether the pictures matched the words. Because the flu clinics' measure efficiency with throughput numbers, the surveys had to be brief to ensure people moved quickly through the lines. As a result, half of the pictograms were tested for comprehension and the other half were tested for design quality.

This study used the International Organization for Standardization (ISO) acceptance criterion of 67 percent comprehension. For more than 30 years, the International Organization for Standardization has developed public information symbols and testing procedures to evaluate their effectiveness. ISO's testing procedures evaluate symbols based on two criteria: appropriateness (a control group's prediction of a percentage of the population that will understand the symbol); and the public's comprehension of the symbols. ISO uses the 67 percent figure of the control group comprehending the symbol as acceptable for adoption and use.¹

The size and height of the signs displayed at the flu clinics may have posed some limitations to the research process. Resource constraints (e.g., budgetary, clinic sites) limited signage production capabilities and the methods available to display the signage. Ideally, the signage would be larger and displayed more prominently at future PODs and clinics through the use of easels or other display techniques. The many volunteers working at the flu clinics made the signage less necessary to direct people. In addition, some of the signs included in the survey were not used in the flu clinics, which may have impacted the results for those pictograms.

-

¹ Cowgill, J, Jim Bolek and JRC Design. "Symbol Usage In Health Care Settings for People with Limited English Proficiency." In Association with Hablamos Juntos, a Program of the Robert Wood Johnson Foundation. April 2003.

DETAILED RESEARCH FINDINGS

Overview

The following sections provide detailed findings from the focus groups with LEP individuals and the surveys conducted at the flu clinics. The results of each research method were analyzed to determine whether the pictograms were easy to understand; components of the designs causing critical confusion; revisions necessary to improve comprehension; and the effectiveness of the POD signage.

Key research findings included:

- Rx is not a universally recognized symbol.
- Certain phrases commonly used in English can be confusing to non-native speakers (e.g., "Turn in" versus "Return").
- People of all cultures may define "family" differently.
- The prohibitive symbol is universally recognized across many cultures and ethnic backgrounds.
- Incorporating the vest on some of the figures in the pictograms indicated to participants they were authority figures.
- The majority of pictograms tested well, but written comments on the surveys indicated the following pictograms were confusing: Don't Change Lanes, Don't Leave Car, Drive-Thru Lane and Educational Information.
- Signs are more effective when they are simple and limited to one pictogram per sign. Including more than one pictogram on a sign can have a negative impact on comprehension of the message.
- Pictograms that were included in the survey, but not used in the flu clinic did not test as well as others.

Focus Group Findings

The following is an account of the feedback received in the focus groups and subsequent revisions that were made to the pictograms. See *Attachment 4* for a listing of the final pictogram designs and signage examples.

Pick Up Medicine

Nearly all of the focus group participants did not know the meaning of the Rx symbol; however, they did think the words and picture fit well together.

Revision: Removed Rx symbol from the pill bottle.

Take 2 pills a.m./p.m.

Participants understood this pictogram and recommended no changes.

Pick Up Form

There were no suggested changes to this pictogram.

Turn In Form

The phrase "Turn In" was confusing to some participants, particularly those who spoke Spanish as the primary language. "Return" was the preferred wording in place of "Turn In." Participants also commented that the vest makes the figure look like an official.

Revision: Changed accompanying text to "Return Form."

Form Line

This pictogram was easy for participants to understand. No revisions were suggested.

Language Translator (Option 1)

There were two options for the language translator pictogram. The first option was confusing to participants. They recommended keeping it more simple and using only one picture to convey the message. Participants were then asked to review Option 2.

Language Translator (Option 2)

This was the preferred pictogram for Language Translator of the two options presented. Nearly all participants said they understood this pictogram, but suggested adding vests to designate authority figures. Others suggested using a color or symbol to signify the translator. One participant asked how a translator would likely be designated at a POD.

Revision: Added vests on two of the figures.

Call For Information

Participants were somewhat confused by the placing of the question mark and recommended moving the question mark to the left of the pictogram with an arrow in the middle pointing to the telephone. Others said to include a telephone number in the accompanying text. Otherwise they would assume it was a direct line to an operator. Some participants asked if the pictogram represented a hot line. In both focus groups, participants asked if the operator on the other end would speak a language other than English.

Revision: Increased the size of the question mark and moved it to the left side of the pictogram. Added an arrow to point from the question mark to the telephone. Added spaces for a telephone number in the accompanying text.

Support Counseling

Overall, participants understood the pictogram. There was back and forth discussion about whether the words should be changed to "Help With Stress" or "Help with Emotional Stress." To some people, stress suggested a medical problem, whereas support meant emotional help. Participants also discussed using words such as "advice" with the picture. In a group poll, the majority of participants voted in favor of using "Support Counseling" for the accompanying text.

Education Information

The participants understood the pictogram and thought the picture matched the words. Some participants suggested changing the word "Education" to "Educational."

Revision: Changed "Education" to "Educational."

Medication For Families With Children

This pictogram raised a discussion about the definition of family and how it should be depicted in the pictogram. Some participants thought the illustration of a family should include two parents and children. Others thought the concept of family could mean a husband and wife or a parent and child.

One participant described a time at the local YMCA when a restroom was labeled a "family restroom." Since her husband considered himself part of a family, he used the facility. The YMCA staff informed him that the restroom was for women and children only, and he was so embarrassed that he never returned to the YMCA.

In addition, participants pointed out that there was no illustration of medicine in the pictogram. They suggested adding an arrow pointing toward a medicine bottle at the end of the line, or having an official with medications at the end of the line.

Revision: Added a medicine bottle at the end of the line with an arrow pointing toward it.

Stay In Car/Don't Leave Car

Two pictograms were created and tested to prevent people from leaving their cars to receive assistance. Nearly all participants preferred the pictogram "Don't Leave Car" more than "Stay In Car." Participants said the prohibitive symbol conveyed the intended message more clearly than the design in the alternative pictogram. Some participants said the door was confusing because of the handle and suggested changing it to a more circular handle.

Revision: Changed the shape of the door handle on the car door.

Put Car In Park

The majority of participants did not understand this pictogram. Suggestions for revisions included making the border of the pictogram car-shaped or changing the pictogram to illustrate a gearshift by making the letters vertical. Others said to include a car-shaped figure on the side of the pictogram or include a steering wheel around the dashboard design.

Revision: Created a new pictogram to illustrate the concept of putting a gearshift in Park.

Stay In Lane/Don't Change Lanes

Two pictograms were developed to prevent cars from changing lanes in drive-thru PODs. The "Don't Change Lanes" pictogram was the preferred design. Some participants suggested revising the pictogram so that the car with the prohibitive symbol was in the left lane and not in the middle of the lane, with an arrow pointing toward the right lane. They suggested making the car in the right lane look the same as the one in the left lane. Other participants suggested angling the car in the middle to better illustrate the concept of merging lanes.

Revision: Angled the car with the prohibitive symbol to illustrate the concept of changing lanes.

Cars With Children

Participants liked the pictogram and recommended that it not be changed.

Signs With Two Pictograms

Participants advised against using two different pictograms to convey the same message in one sign. If they saw a sign with two pictograms, they would be confused and think it was communicating two different messages instead of one. Participants also said when you have two or more pictograms in one sign, people under stress become easily confused and they cannot comprehend critical messages.

Survey Findings

The flu clinic surveys were available in both English and Spanish. Survey findings were analyzed and will be presented in categories of overall data and Spanish survey data.

Drive-thru Clinic Surveys – Lexington Flu Clinic

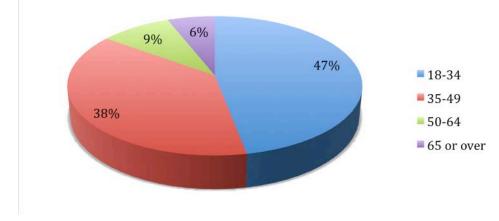
Demographic Findings

The first portion of the survey collected demographic data pertaining to the age of participants, level of education, primary language spoken and race/ethnicity. Overall,

48 percent of survey participants were between the ages of 50 and 64 years old. The second largest age category was 35-49 year olds (27 percent). Figure 1 includes a complete breakdown of the age categories represented in the survey. Among the Spanish-speaking participants, 47 percent fell into the 18-34 year old category and 38 percent were 35-49 years old. Figure 2 shows the breakdown of the age categories among Spanish-speaking survey participants.

Figure 1: Overall Age Data





In regard to the highest level of education participants had completed, 31 percent of all participants were college graduates and 23 percent had completed graduate school. Figure 3 shows a break breakdown of the education level of all participants. Of those who completed the Spanish surveys, 43 percent were high school graduates and 32 percent had completed some high school. Refer to Figure 4 for the level of education completed by Spanish-speaking survey participants.

Figure 3: Overall Education Data

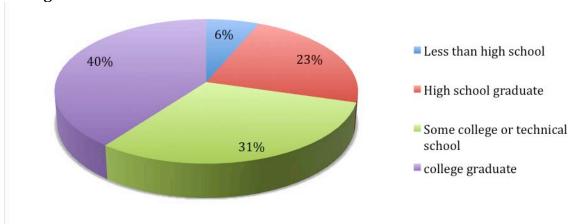
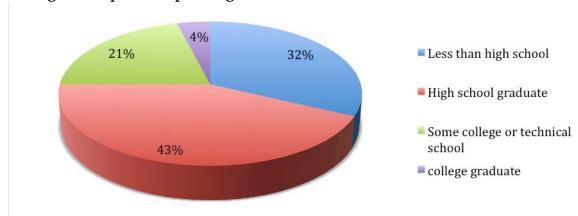
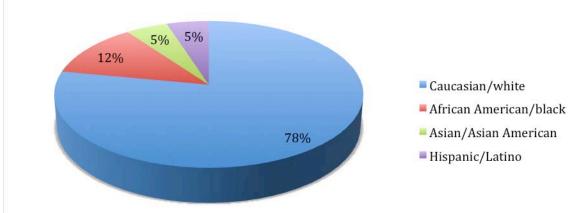


Figure 4: Spanish-Speaking Education Data



Of all the participants, 95 percent spoke English as their primary language and 5 percent spoke Spanish. Nearly 80 percent of participants described themselves as Caucasian/white; 12 percent as African Americans/black; and five percent as Asian/Asian American or Hispanic/Latino (see Figure 5).

Figure 5: Overall Ethnicity Data



Pictogram/Signage Findings

Overall, the pictogram signs were noticeable and helpful to people. Seventy-nine percent of participants noticed the pictogram signs used in the flu clinic, while 21 percent did not notice the signs (See Figure 6). The majority of participants (81 percent) said the pictogram signs helped them to know where to go and what to do. Refer to Figure 7 for a complete breakdown of this data.

Figure 6: Visibility of Signage

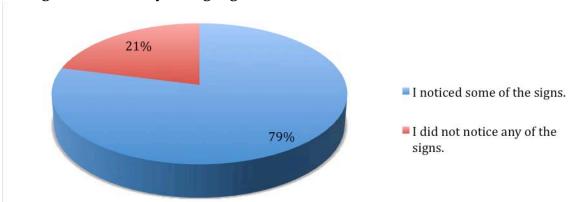
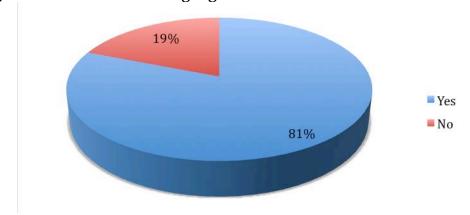


Figure 7: Effectiveness of Signage



Three pictograms were tested for level of comprehension: Don't Change Lanes, Put Car In Park and Drive-Thru Lane. These pictograms tested above the acceptance criteria of 67 percent comprehension. In the overall results, all pictograms tested at 93 percent comprehension or higher. In the Spanish survey data, the pictograms tested at 78 percent comprehension or higher. Refer to Figure 8 for a breakdown of the overall comprehension percentages for each pictogram. Figure 9 shows comprehension among Spanish-speaking participants.

Figure 8: Overall Results – Do you understand what these picture signs mean?

	Yes	No	No Response
Don't Change Lanes	93%	6%	1%
Put Car In Park	97%	1%	2%
Drive-Thru Lane	95%	4%	1%

Figure 9: Spanish Results – Do you understand what these picture signs mean?

	Yes	No
Don't Change Lanes	78%	22%
Put Car In Park	96%	4%
Drive-Thru Lane	100%	0%

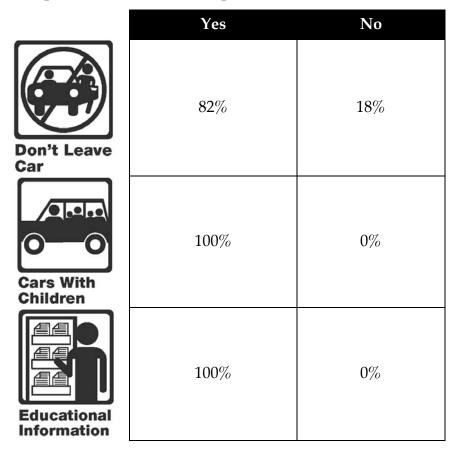
Three different pictograms were tested for design quality to determine if the pictures matched the accompanying text: Don't Leave Car, Cars With Children and Educational Information. The majority of participants (94 percent) thought the Don't Leave Car picture matched the words. The other pictograms generated similar results, which found that 91 percent and 83 percent of participants thought the pictures for Cars With Children and Educational Information matched the words, respectively.

The Spanish survey data yielded positive results in terms of the pictograms' design quality. The findings showed that 100 percent of participants thought the pictures matched the words in the Cars With Children and Educational Information pictograms. Eighty-two percent of Spanish-speaking participants thought the picture complemented the accompanying text in the Don't Leave Car pictogram. See Figure 10 for the overall design quality results. Figure 11 shows design quality results among Spanish-speaking participants.

Figure 10: Overall Results – Do the pictures match with the words?

	Yes	No	No Response
Don't Leave Car	94%	5%	1%
Cars With Children	91%	7%	2%
Educational Information	83%	14%	3%

Figure 11: Spanish Results – Do the pictures match with the words?



Written Comments

Several survey participants included written comments on the surveys. There were common themes throughout the comments. The pictogram signs that seemed to cause the most confusion were Educational Information, Don't Change Lanes, Drive-Thru Lane and Don't Leave Car. The Educational Information pictogram was not used in the drive-thru flu clinic.

Representative comments included:

- Educational Information: could be plainer.
- Don't Change Lanes and Drive-Thru Lane: Understand, but they are a little unclear.
- I noticed some of the signs, but not the picture signs.
- People also helped me know where to go/what to do.
- Don't Leave Car: Person is doing what not to do.

- Educational Information: Understand words but not picture.
- Did the picture signs help you know where to go and/or what to do? We can read and we'd been through it before.
- Did the picture signs help you know where to go and/or what to do? The people directing traffic were more helpful.
- Don't Leave Car and Drive-Thru Lane: Understanding is questionable.
- Educational Information: Should use international sign (sketch of person next to a big lower-case "i").
- Don't Change Lanes: Confusing.
- A couple of the logos [on signs] were too small. Only was able to read the signs held by workers.
- I did not notice any of the signs: I wasn't driving though.
- Did you notice the picture signs used in the flu clinic? Yes, but arrows not pictures.
- Did you notice the picture signs used in the flu clinic? Saw word signs.
- Don't Change Lanes: Confusing.

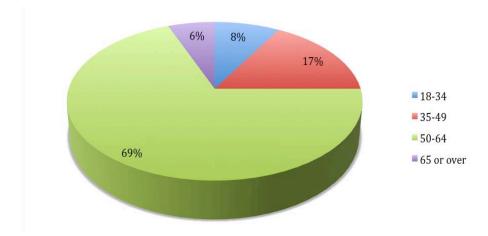
Survey participants also provided written comments about the flu clinic. The comments are included in this report as *Attachment 5*.

Walk-in Clinic Surveys – Louisville Flu Clinic

Demographic Findings

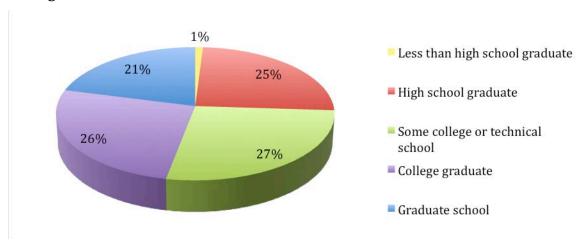
The 50-64 year-old age category represented 58 percent of survey participants. The 65 or over age category was the second highest represented at 21 percent. See Figure 12 for the percentages of age categories.

Figure 12: Overall Age Data



The level of education participants had completed was evenly distributed. Twenty-seven percent of participants completed some college or technical school; 26 percent were college graduates; 25 percent were high school graduates; and 21 percent completed graduate school (see Figure 13).

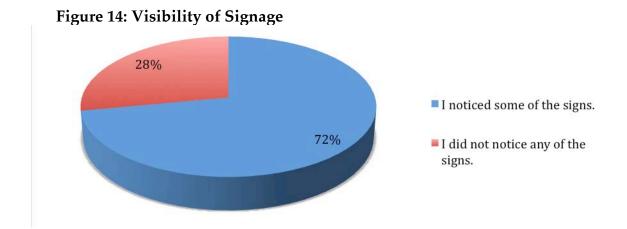
Figure 13: Overall Education Data



English was the primary language for 99 percent of the survey participants. The majority of participants (92 percent) described themselves as Caucasian/white and six percent were African American/black. Less than two percent were Asian/Asian American. There was no Hispanic/Latino representation among survey participants.

Pictogram/Signage Findings

The majority of survey participants said the signs were noticeable and helpful. Seventyone percent of participants noticed the signs and 69 percent thought the signs helped them know where to go and what to do (See Figures 14 and 15).



Tigure 13. Effectiveness of Signage

Yes
No

Figure 15: Effectiveness of Signage

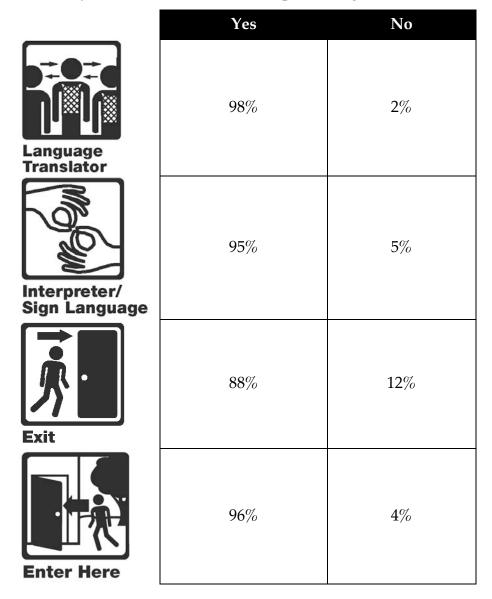
Four pictograms were tested for level of comprehension: Get A Shot, Fill Out Form, Return Form and Form Line. All pictograms exceeded the acceptance criterion of 67 percent comprehension. The Get A Shot pictogram tested the highest at 98 percent comprehension. The other pictograms generated results between 88 and 96 percent comprehension. For a complete breakdown of level of comprehension percentages, refer to Figure 16.

Figure 16: Do you understand what these picture signs mean?

	Yes	No
Get A Shot	98%	2%
Fill Out Form	95%	5%
Return Form	88%	12%
Form Line	96%	4%

The remaining four pictograms were tested for design quality to determine whether the pictures matched the words. The pictograms included Language Translator, Interpreter/Sign Language, Exit and Enter Here. Language Translator tested the lowest at 62 percent; however, this sign was not used in the flu clinic and translation services were not available. Enter Here and Exit tested at 97 and 93 percent comprehension respectively. Refer to Figure 17 for a description of comprehension percentages for each pictogram.

Figure 17: Do you understand what these picture signs mean?



Written Comments

Some survey participants included written comments on their surveys. The following comments are organized by the specific questions to which the comments refer.

- Did the picture signs help you know where to go and/or what to do?
 - Only arrows Nothing said flu shots at entry.
 - The cadets helped.
 - There were so many helpers that I didn't need signs.

- ROTC members took care of that before we had time to look for signs!
- Do the pictures match the words?
 - Use words.

CONCLUSIONS & RECOMMENDATIONS

The 2008 pictogram research project represents a substantial research effort in terms of the methods used, sample size and diversity of participants. This year was the first attempt to test the pictograms in real-life settings similar to PODs. Testing the pictograms in the flu clinic context strengthens the validity of the work and the reliability of the pictograms as effective communication tools.

Overall, the research findings support the effectiveness and usefulness of pictograms to communicate information and assist public flow through PODs. The research findings point to the comprehensibility of the pictograms and the quality of the designs. All of the pictograms tested met the acceptance criteria for comprehension. The research findings indicated that the pictogram designs and accompanying words were complementary and easy to understand.

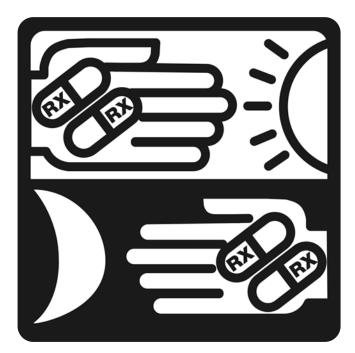
Critical next steps in the pictogram work include:

- Considering additional revisions to the pictograms prior to making the signage available online. Any revisions should be minor unless further testing occurs in 2009. Pictograms to consider for revision include: Drive-Thru Lane, Don't Leave Car, Don't Change Lanes and Educational Information.
- Increasing the size of the signage to better accommodate the drive-thru clinics by adding a third size option that would be larger than the $18' \times 24'$ signage.
- Making the pictograms available to LHDs online along with general recommendations for use and implementation.
- Expanding the pictogram work to include critical messaging needs for evacuee shelters.
- A public education campaign to raise awareness of the project and its application to PODs and other clinic settings. The campaign should target LEP and deaf and hard of hearing populations and include ancillary materials that incorporate the pictogram designs and identify where and how they will be used.



Pick Up Medicine

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- *3)* Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



Take 2 Pills a.m. Take 2 Pills p.m.

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



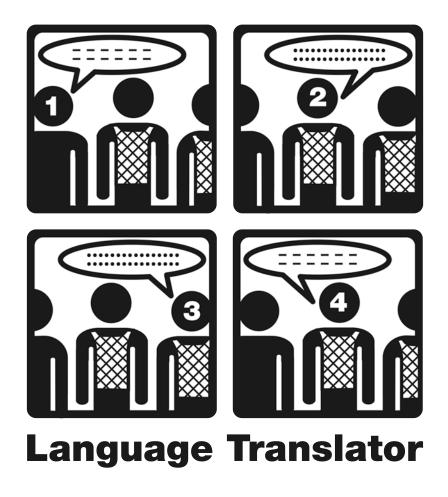
Turn In Form

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?

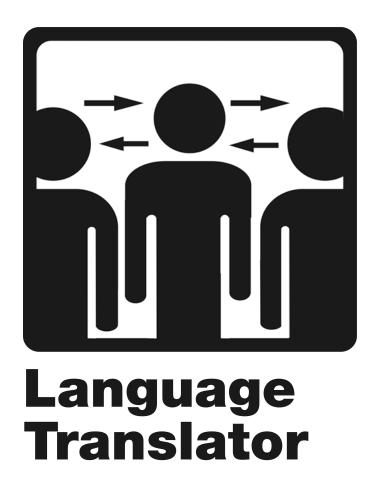


Form Line

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



Call for Information

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



Education Information

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



Medication For Families With Children

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



Don't Leave Car

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?

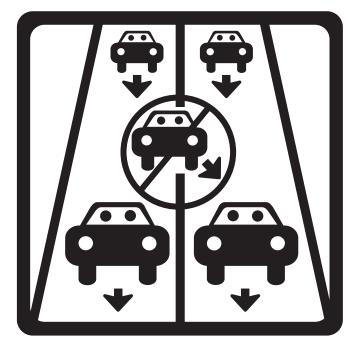


Put Car In Park

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



Don't Change Lanes

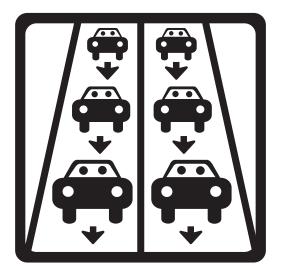
- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?

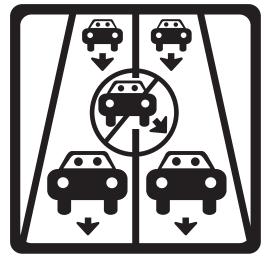


- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram?



- 1) If you were driving and saw both of these pictograms together in one sign, what would the sign mean to you?
- 2) What actions would you take if you saw this sign?
- 3) Is it effective to put both pictures together in one sign?
- 4) Is there anything that could be done to improve this sign?





Stay In Lane Don't Change Lanes

- 1) If you were driving and saw both of these pictograms together in one sign, what would the sign mean to you?
- 2) What actions would you take if you saw this sign?
- 3) Is it effective to put both pictures together in one sign?
- 4) Is there anything that could be done to improve this sign?

ATTACHMENT 2: FOCUS GROUP DISCUSSION GUIDE

I. Introduction & Set Up: 10-15 minutes

Ground rules are explained and general background is covered. Respondent introductions are made. Outside parties are introduced.

- 1. What is your native country/language?
- 2. How long have you been in the United States?

During emergencies, it may be necessary for public health agencies to set up emergency aid locations to help people in need. Some examples of emergencies include situations like a disease outbreak or natural disasters, such as an ice storm, tornado or earthquake. If an emergency occurred in Kentucky, the Kentucky Cabinet for Health and Family Services/Department for Public Health would set up aid locations to give people necessities such as medication, food and water. The aid locations would be set up in places such as hospitals, churches or schools.

When people go to these aid locations for help, it is important that they are able to understand the information given to them and the actions they are asked to do. In a large emergency, the aid locations likely would be crowded, and it may be necessary to move people around to different areas. For example, people may have to go to one area to get medicine and another area to get food. Sometimes there may not be staff available to tell people where to go and what to do. Pictures can be used as a way to help people find their way through an aid location.

Today, you are going to be asked to look at a series of pictures called pictograms that could be used to guide people through an aid location. Pictograms are pictures and images that are used to communicate a group of words or actions. Pictograms can be used to communicate with people whose first language may not be English or with people who have difficulty understanding written or spoken English. (*Facilitator note: Some respondents may have participated in this type of research before and therefore have seen pictograms*.)

Now that you have a better understanding of why we have brought you all here today, we would like to show you a set of pictograms that you might see at an aid location or at other public places, like a drive-thru flu clinic. You will be given time to answer some questions about each pictogram, and then we will discuss what you think about each one. Your feedback will be of great value and will help us to improve the pictogram designs we have created for use at aid locations.

II. Individual reactions/group discussion of walk-in clinic pictograms (text included)- 30-45 minutes

- Distribute first pictogram packet (walk-in clinic pictograms) and worksheets
- Read Scenario #1 to respondents
- Respondents are asked to write down their initial reactions to each pictogram by

recording their answers to the following questions: (those that are not able to write or have difficulty writing will use a tutor for assistance).

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Is there anything that could be done to improve this pictogram?

Scenario #1

As you view each pictogram, imagine that an ice-storm has happened and you have been without power for one week. You are in need of a warm place to stay where food and water are provided. You have been listening to a battery-powered radio and find out there is an aid location at a school near you. You have arrived at the school and you see many other neighbors and people from your community. You also notice that there are different stations inside the school where people are going to get help.

You don't see any person who seems to be in charge, answering questions or directing people, but you do notice pictograms that are displayed inside the school. The pictograms are being used to help people know which station to go to and what to do when they get there.

Imagine that the pictograms you see at the school are the same ones that have been given to you in this packet. Now look at each picture one-by-one. As you look at each picture, think about whether the picture and the words go together. Does the picture mean something different to you than what the words say? Or, do the pictures and words fit well together?

You will notice on your worksheet that there are three questions for each pictogram. As you look at each picture, answer the questions on your worksheet. The questions are:

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Do the picture and the words go together?
- 4) Is there anything that could be done to improve this pictogram? (Key question. We want to generate a lot of feedback that will assist Vivian in revising the pictogram designs.)

Please write down the first thoughts that come to your mind as you look at the pictures. There are no right or wrong answers to these questions and your answers can be short. We will discuss your answers when everyone is finished.

The pictograms are in the following order (and numbered accordingly):

- 1) Pick-up Medicine
- 2) Take 2 Pills a.m./Take 2 pills p.m.
- 3) Pick Up Form
- 4) Turn In Form
- **5) Language Translator** (test 2 pictograms?)
- 6) Form Line

- 7) Call for Information
- 8) Support Counseling
- 9) Education Information
- 10) Medicine for Families with Children

When everyone is finished writing their answers, ask respondents to discuss their answers for each pictogram. Follow up questions could include:

- *Is there anything in particular that you liked or disliked about this image?*
- What parts of the picture caused confusion for you?
- How might the picture be improved to clear up any confusion?

III. Individual reactions/group discussion of drive-thru pictograms – 30 minutes

- *Distribute second pictogram packet (drive-thru pictograms)*
- Read Scenario #2 to respondents
- Respondents are asked to write down their initial reaction to the pictogram by recording their answers to the same three questions: (those that are not able to write or have difficulty writing will use a tutor for assistance).
 - 1) What does this pictogram mean to you?
 - 2) What actions would you take if you saw this pictogram?
 - *3) Do the picture and the words go together?*
 - 4) Is there anything that could be done to improve this pictogram?

Scenario #2

It is September and flu season is right around the corner. Your schedule is so busy that you're not even sure you'll have time to take yourself and your family to get flu shots. Last year, the lines at the walk-in flu clinic were so long that you and your family had to wait an hour for your flu shots. Then, you notice a newspaper ad for free flu shots at a local drive-thru clinic that's close to where you live. You decide the drive-thru clinic will be the best option for your busy schedule because it's quick and you won't have to wait in long lines. You pile your family in the car and arrive at the drive-thru flu clinic. As you approach the flu clinic, all staff members are busy helping other cars. You are relieved when you see a few different pictograms that tell you where to go and what to do.

Imagine that the pictograms in this packet are the same ones you see at the drive-thru flu clinic. Now look at each picture one-by-one and write down your answers to the questions on your worksheet. The questions are the same as the ones you answered for the first set of pictograms:

- 1) What does this pictogram mean to you?
- 2) What actions would you take if you saw this pictogram?
- 3) Is there anything that could be done to improve this pictogram?

Please write down the first thoughts that come to your mind as you look at the pictures. There are no right or wrong answers to these questions and your answers can be short. We will discuss your answers when everyone is finished.

The pictograms are in the following order (and numbered accordingly):

- Stay in Car/Don't Leave Car
- Cars With Families
- Stav in Lane
- Put Car in Park

When everyone is finished writing their answers, ask respondents to discuss their answers for each pictogram. Follow up questions could include:

- Is there anything in particular that you liked or disliked about this image?
- What parts of the picture caused confusion for you?
- How might the picture be improved to clear up any confusion?

IV. Thank you & Conclude

Collect respondents' worksheets. Thank them for their comments. Explain next steps for the pictogram work.

Are there any other comments before we conclude this session

ATTACHMENT 3: FLU CLINIC SURVEYS

Drive-Thru Flu Clinic Survey

Please tell us what you think about the picture signs used in this flu clinic.

- 1. How old are you? (circle one)
 - a. 18-34
 - b. 35-49
 - c. 50-64
 - d. 65 or over
- 2. What is the highest level of education you completed? (circle one)
 - a. less than high school graduate
 - b. high school graduate
 - c. some college or technical school
 - d. college graduate
 - e. graduate school
- 3. What language do you speak most at home? (circle one)
 - a. English
 - b. Spanish
 - c. Other:
- 4. Do you describe yourself as: (circle one)
 - a. Caucasian/white
 - b. African American/black
 - c. Asian/Asian American
 - d. Hispanic/Latino
 - e. Other: _____
- 5. Did you notice the picture signs used in the flu clinic? (circle one)
 - a. I noticed some of the signs.
 - b. I did not notice any of the signs.
- 6. Did the picture signs help you know where to go and/or what to do? (circle one)
 - a. Yes
 - b. No

7. Do you understand what these picture signs mean?



Don't Change Lanes

(circle one)

b. No

a. Yes



Put Car In Park

(circle one) a. Yes

b. No



Lane

(circle one)

a. Yes

b. No

8. Do the pictures match with the words?



Don't Leave Car

(circle one)

a. Yes

b. No



Cars With Children

(circle one)

a. Yes b. No

Information (circle one)

Educational

a. Yes

Encuesta de la clínica de vacunación contra la gripe con servicio en su vehículo (drive-thru)

Indíquenos qué piensa acerca de los letreros usados en esta clínica de vacunación contra la gripe.

- 1. ¿Qué edad tiene? (encierre en un círculo una sola respuesta)
 - a. 18-34
 - b. 35-49
 - c. 50-64
 - d. 65 o mayor
- 2. ¿Hasta qué grado estudió en la escuela? (encierre en un círculo una sola respuesta)
 - a. No terminé high school.
 - b. Terminé high school.
 - c. Parte de los estudios universitarios o de escuela técnica.
 - d. Me gradué de la universidad.
 - e. Estudios de posgrado.
- 3. ¿Qué idioma habla principalmente en su casa? (encierre en un círculo una sola respuesta)
 - a. Inglés
 - b. Español
 - c. Otro:
- 4. ¿Se describe usted a sí mismo como: (encierre en un círculo una sola respuesta)
 - a. Caucásico/blanco
 - b. Afroamericano/negro
 - c. Asiático/Asiático americano
 - d. Hispano/Latino
 - e. Otro:
- 5. ¿Notó los letreros en la clínica de vacunación contra la gripe? (encierre en un círculo una sola respuesta)
 - a. Noté algunos de los letreros.
 - b. No noté ningún letrero.
- 6. ¿Le ayudaron los letreros a saber a dónde ir o qué hacer? (encierre en un círculo una sola respuesta)
 - a. Sí
 - b. No

7. ¿Comprende qué significan estos letreros? (encierre en un círculo una sola respuesta)



carril

- a. Sí
- b. No



No cambie de Ponga el carro Carril para la en "Park"

- a. Sí
- b. No



ventanilla

- a. Sí
- b. No
- 8. ¿Expresan las palabras lo que indican los letreros? (encierre en un círculo una sola respuesta)



No salgan del Automóviles automóvil

- a. Sí
- b. No



con niños

- a. Sí
- b. No



Información educacional

- a. Sí
- b. No

Walk-in Flu Clinic Survey

Please tell us what you think about the picture signs used in this flu clinic.

- 1. How old are you? (circle one)
 - a. 18-34
 - b. 35-49
 - c. 50-64
 - d. 65 or over
- 2. What is the highest level of education you completed? (circle one)
 - a. less than high school graduate
 - b. high school graduate
 - c. some college or technical school
 - d. college graduate
 - e. graduate school
- 3. What language do you speak most at home? (circle one)
 - a. English
 - b. Spanish
 - c. Other: ___
- 4. Do you describe yourself as: (circle one)
 - a. Caucasian/white
 - b. African American/black
 - c. Asian/Asian American
 - d. Hispanic/Latino
 - e. Other:
- 5. Did you notice the picture signs used in the flu clinic? (circle one)
 - a. I noticed some of the signs.
 - b. I did not notice any of the signs.
- 6. Did the picture signs help you know where to go and/or what to do? (circle one)
 - a. Yes
 - b. No

7. Do you understand what these picture signs mean?



(circle one)

a. Yes

b. No



Fill Out



Form

(circle one) a. Yes b. No





(circle one) a. Yes

(circle one) a. Yes b. No

b. No

8. Do the pictures match with the words?

b. No



Language Translator

(circle one) a. Yes b. No



Interpreter/ Sign Language

(circle one) a. Yes

(circle one) a. Yes b. No



(circle one) a. Yes b. No

Encuesta de la clínica de vacunación contra la gripe con servicio sin necesidad de cita

Indíquenos qué piensa acerca de los letreros usados en esta clínica de vacunación contra la gripe.

- 1. ¿Qué edad tiene? (encierre en un círculo una sola respuesta)
 - a. 18-34
 - b. 35-49
 - c. 50-64
 - d. 65 o mayor
- 2. ¿Hasta qué grado estudió en la escuela? (encierre en un círculo una sola respuesta)
 - a. No terminé high school.
 - b. Terminé high school.
 - c. Parte de los estudios universitarios o de escuela técnica.
 - d. Me gradué de la universidad.
 - e. Estudios de posgrado.
- 3. ¿Qué idioma habla principalmente en su casa? (encierre en un círculo una sola respuesta)
 - a. Inglés
 - b. Español
 - c. Otro:
- 4. ¿Se describe usted a sí mismo como: (encierre en un círculo una sola respuesta)
 - a. Caucásico/blanco
 - b. Afroamericano/negro
 - c. Asiático/Asiático americano
 - d. Hispano/Latino
 - e. Otro:
- 5. ¿Notó los letreros en la clínica de vacunación contra la gripe? (encierre en un círculo una sola respuesta)
 - a. Noté algunos de los letreros.
 - b. No noté ningún letrero.
- 6. ¿Le ayudaron los letreros a saber a dónde ir o qué hacer? (encierre en un círculo una sola respuesta)
 - a. Sí
 - b. No

7. ¿Comprende qué significan estos letreros? (encierre en un círculo una sola respuesta)



Obtenga una vacuna



Llene el formulario



Regrese el formulario



Fórmese en la fila

- o inyección a. Sí
- b. No
- a. Sí b. No
- a. Sí b. No
- a. Sí b. No
- 8. ¿Expresan las palabras lo que indican los letreros? (encierre en un círculo una sola respuesta)



Intérprete

Sí

b. No



señas

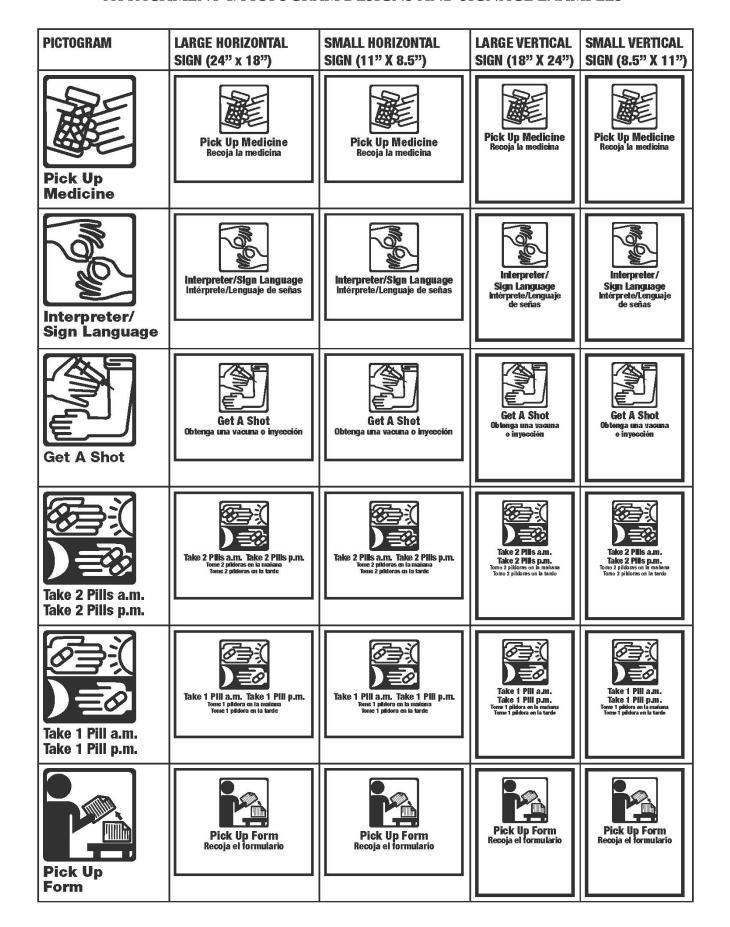


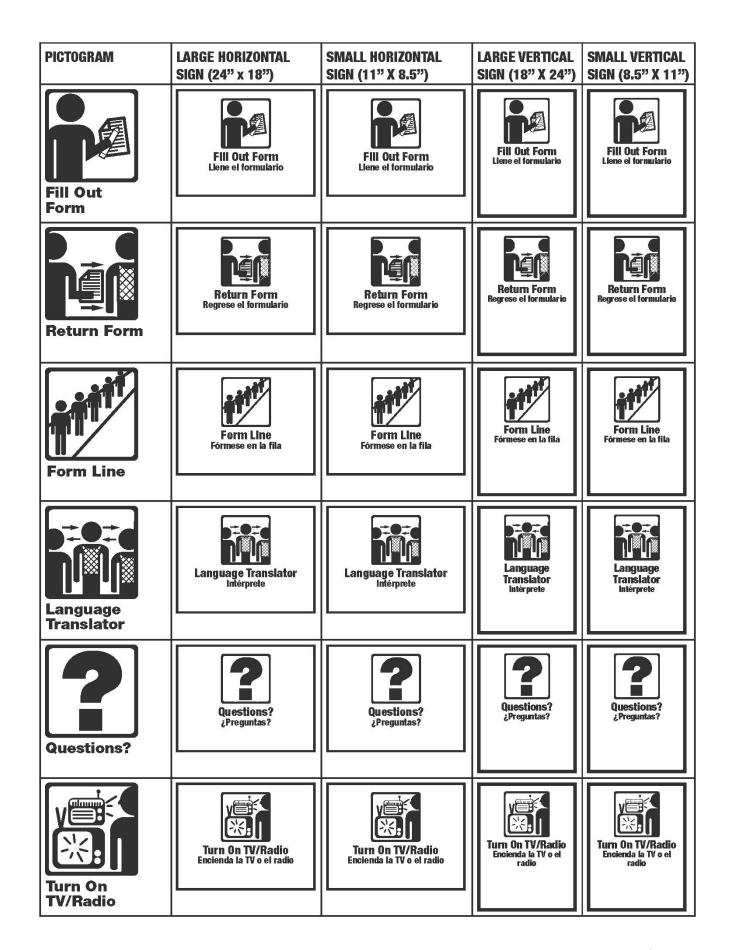
- a. Sí b. No
- Salida
- a. Sí b. No

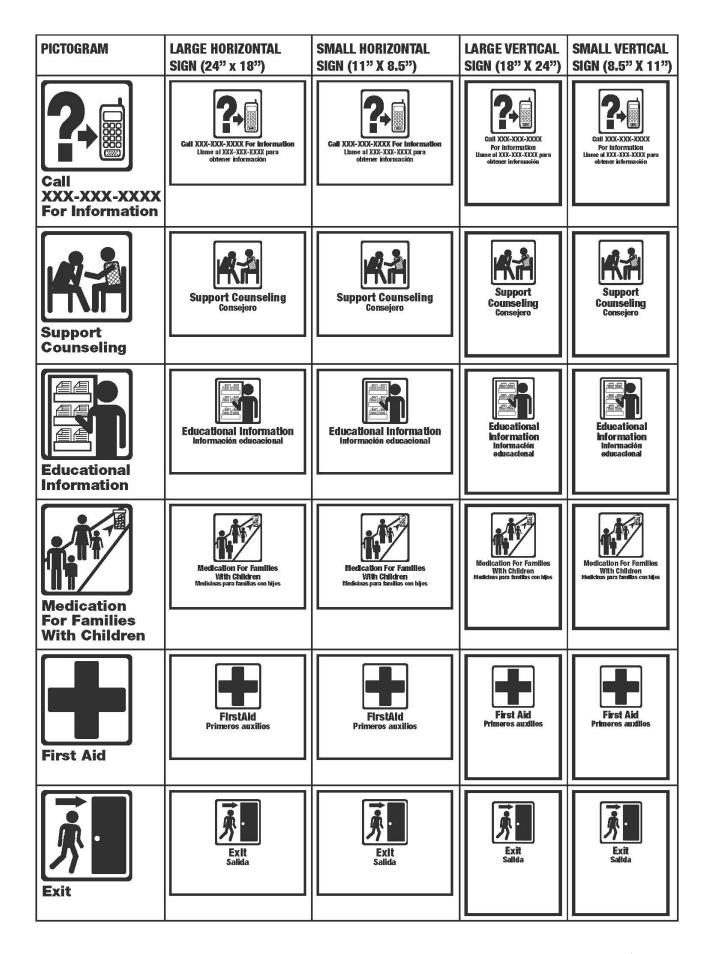
Entre por aquí

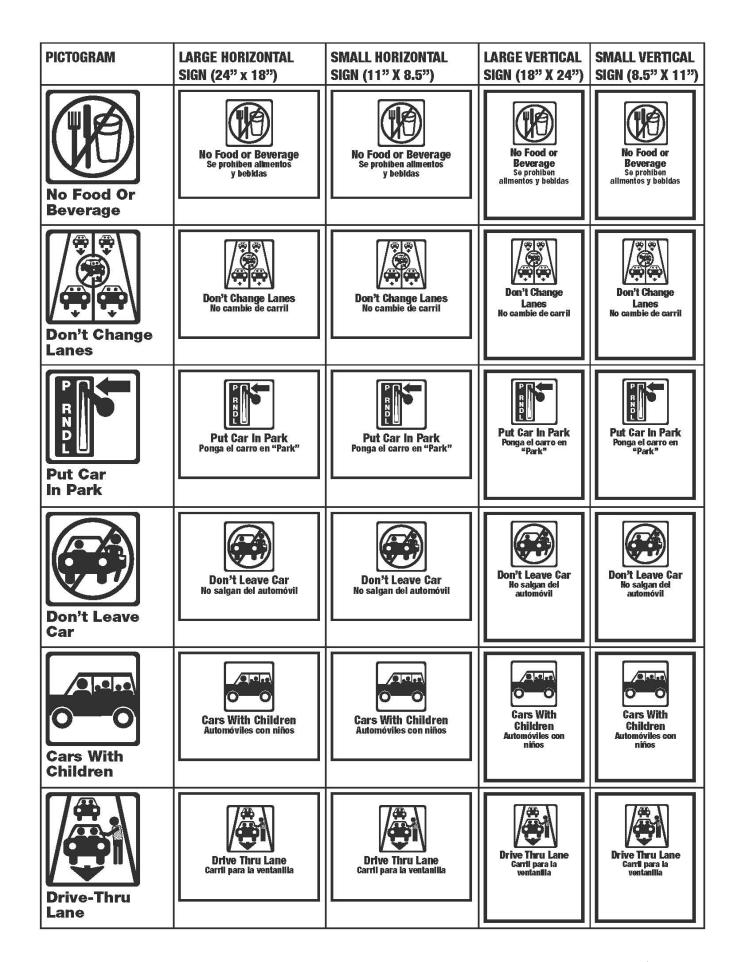
- a. Sí
- b. No

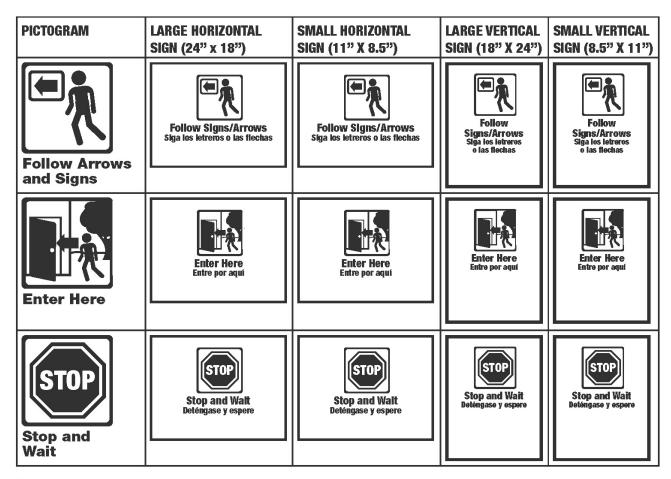
ATTACHMENT 4: PICTOGRAM DESIGNS AND SIGNAGE EXAMPLES











DESCRIPTION	IMAGE
Forward Arrow	
Back Arrow	
Right Arrow	
Left Arrow	

ATTACHMENT 5: FLU CLINIC SERVICE/LOGISTICS COMMENTS

- Good job
- Traffic direction needs to be better! I was yelled at twice for doing as directed! Lane merges at entry and before going to lanes! It would help to have traffic directors say which lane to go to!
- I'm very impressed with how well run this clinic is!! Thank you.
- I used 1/8 tank gas going thru the lines. Maybe next year I'll use the bus and walk-up.
- We went to the wrong Lexmark entrance on Newtown Pike (on the other side of New Circle). This one is closer to the health department clinic where we've gotten flu shots before. The gate was closed no sign, no people at the gate. You're lucky we found you. Poor advertising.
- Very nice service. Management awesome. Thankful to people holding the signs and directing us.
- Line four was 20 cars slower than any other line.
- Need a big arrow sign, in the grassy island pointing toward next entrance (off Newtown) at first Lexmark stoplight. Not a small "stop" sign held by a person. All other signs A+.
- It would be helpful if the people working the clinic giving hand directions all wore orange gloves.
- Very efficiently managed plenty of people pointing the way.
- I didn't notice any signs because volunteers/workers were very efficient and the line was moving very smooth and fast when I came thru.
- At one point early we went from two lanes to one then back to two some rude people raced and jumped the line.
- I was pleasantly surprised by how quickly everything went. The people were great. Thanks for a job well done.
- The flu clinic drive-thru was very good, organized and perfect. Thank you so much.
- Doing a great job but do have a complaint. There were many cars in line early. But, only one lane was open; then the left lane suddenly had all these cars passing us. If there are two lanes, then let us early birds use them.
- We need this every year. We really like your work. Thanks so much!
- Note: One person directing traffic was very rude.
- Thank you so much for this! Awesome!
- Thanks, awesome service! This is a wonderful service.
- People did an excellent job.
- You had so many volunteers, why bother with the signs? You could have just used the signs and a few volunteers. Ridiculous number of people.
- Have lane for cars that have multiple people in car.
- I love your drive-thru clinic for flu shots very fast and efficient. Thanks.
- People waving us on helped.