

# Increasing Walking through Wayfinding: The Walk to Fly Study Experience

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# Walking in Airports?



## More People Walk to Better Health

**48%**

About half of all adults get enough aerobic physical activity\* to improve their health.

**6 in 10**

Walking is the most popular aerobic physical activity. About 6 in 10 adults reported walking for at least 10 minutes in the previous week.

**6%**

Adults who walk for transportation, fun, or exercise went up 6 percent in 5 years.

More than 145 million adults now include walking as part of a physically active lifestyle. More than 6 in 10 people walk for transportation or for fun, relaxation, or exercise, or for activities such as walking the dog. The percentage of people who report walking at least once for 10 minutes or more in the previous week rose from 56% (2005) to 62% (2010).

Physical activity helps control weight, but it has other benefits. Physical activity such as walking can help improve health even without weight loss. People who are physically active live longer and have a lower risk for heart disease, stroke, type 2 diabetes, depression, and some cancers. Improving spaces and having safe places to walk can help more people become physically active.

→ See page 4

Want to learn more? Visit

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

\*Aerobic activities like brisk walking, running, swimming and bicycling make you breathe harder and make your heart and blood vessels healthier.

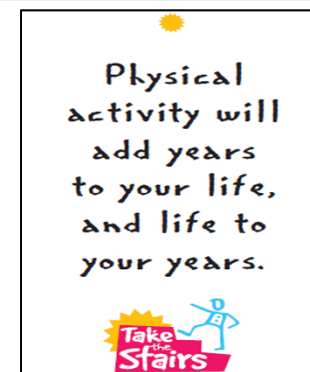
National Center for Chronic Disease Prevention and Health Promotion  
Division of Nutrition, Physical Activity, and Obesity



# Point-of-Decision Prompts: A Recommended Strategy

## The Effectiveness of Interventions to Increase Physical Activity A Systematic Review

Emily B. Kahn, PhD, MPH, Leigh T. Ramsey, PhD, Ross C. Brownson, PhD, Gregory W. Heath, DHSc, MPH, Elizabeth H. Howze, ScD, Kenneth E. Powell, MD, MPH, Elaine J. Stone, PhD, MPH, Mummy W. Rajab, MS, Phaedra Corso, PhD, and the Task Force on Community Preventive Services



Kahn EB, et al. *Am J Prev Med.* 2002;22(4S):73–107.

# The Walk to Fly Study: Purpose

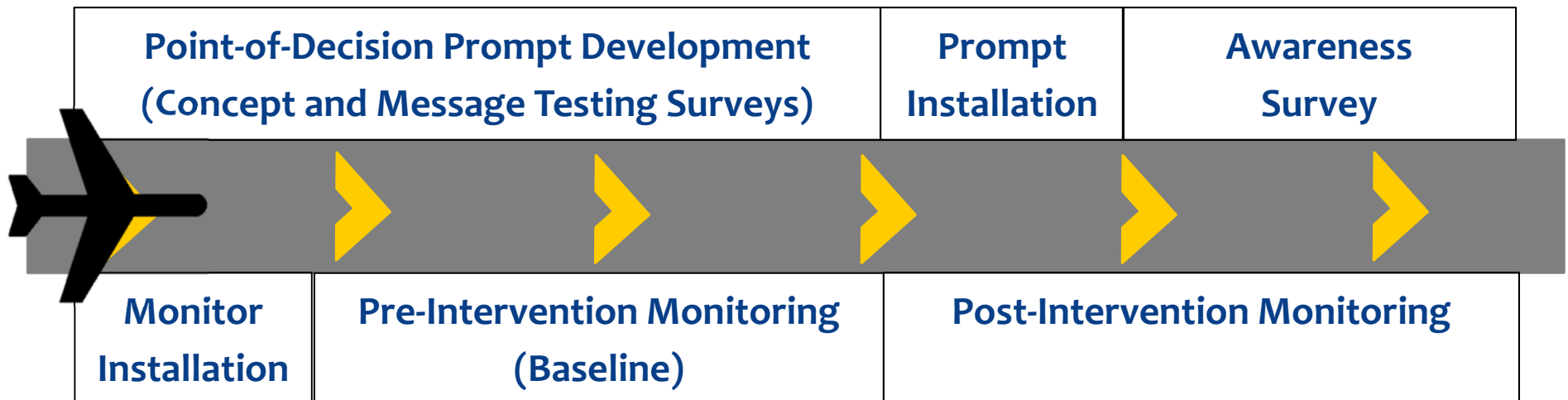
- \* Develop, implement, and evaluate the impact of a point-of-decision prompt intervention to encourage walking in a large metropolitan airport

# A Point of Decision



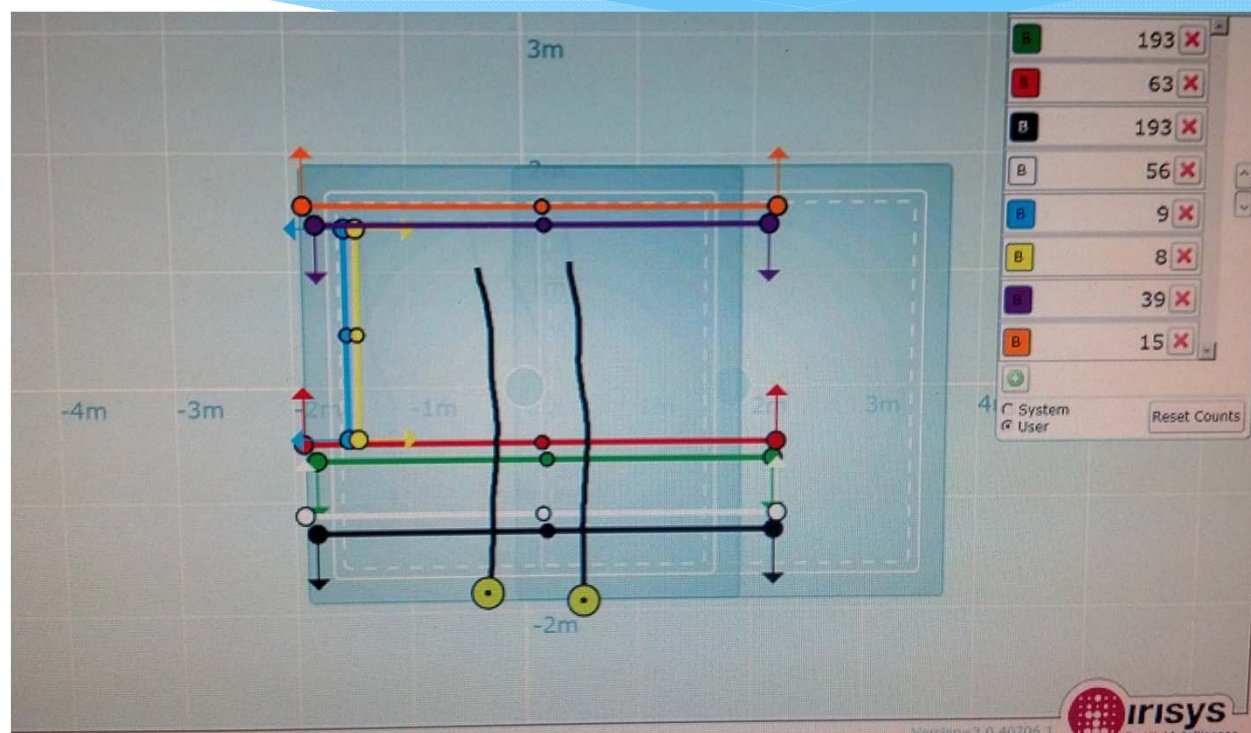
# Study Design

## Messaging

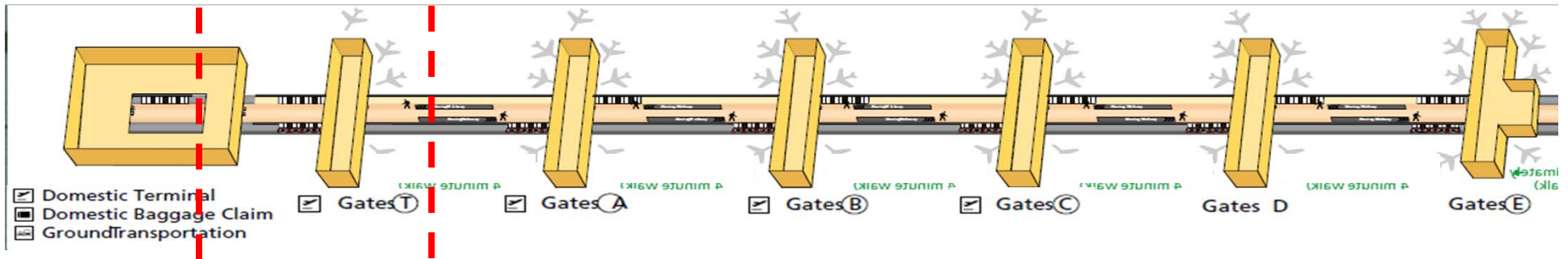


## Monitoring

# Ceiling-Mounted Infrared Monitors



# Airport Transportation Mall Layout





# Development and Evaluation of Point-of-Decision Prompts

- \* Development

- \* Surveys of random sample of airport travelers
- \* Barriers to walking in the airport
- \* Concepts to prompt walking

- \* Evaluation

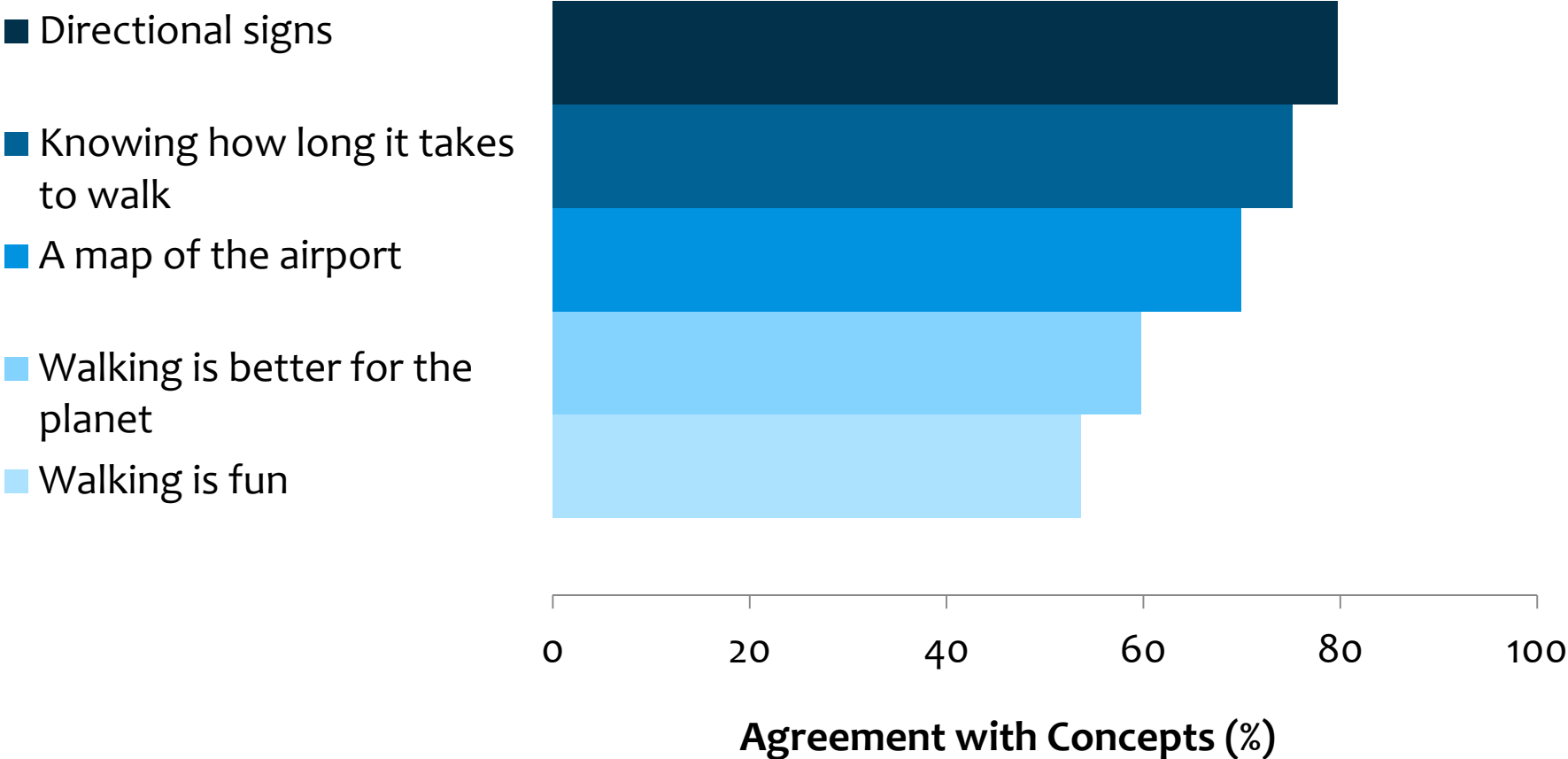
- \* Time-series analysis
  - \* Monitor counts, before versus after
  - \* Controlled for time of year and day of week

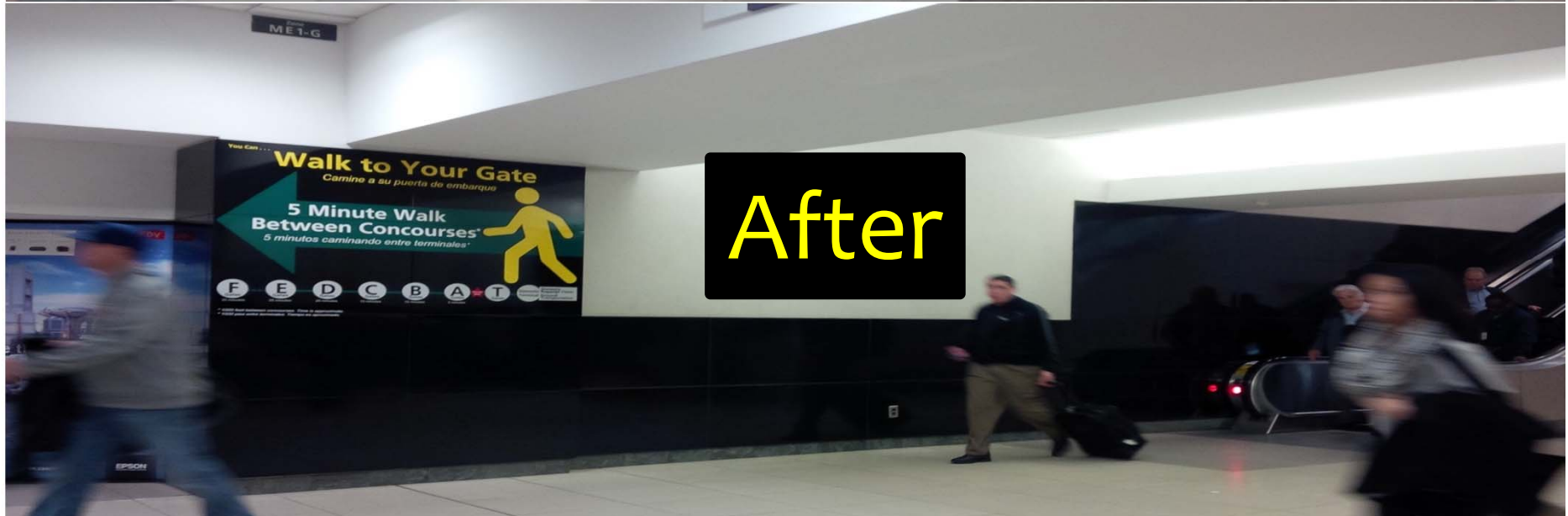
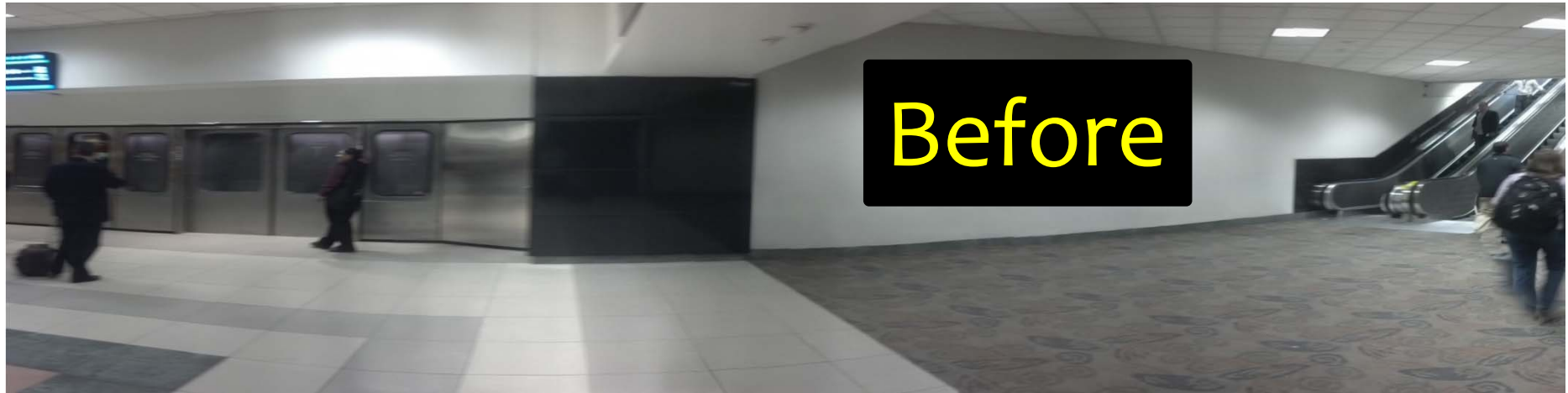
# Airport Traveler Characteristics

	Overall		Men		Women	
	n <sup>a</sup>	% <sup>b</sup>	n <sup>a</sup>	% <sup>b</sup>	n <sup>a</sup>	% <sup>b</sup>
<b>Age group (years)</b>						
18-44	55	38.3	31	40.0	24	35.2
45+	95	61.7	53	60.0	42	64.8
<b>Travel Purpose</b>						
Business	55	36.2	37	47.5	18	16.6
Leisure	85	58.2	41	47.3	44	77.3
Both	8	4.4	5	4.2	3	4.8
Other	2	1.1	1	1	1	1.3
<b>Day of Week</b>						
Weekday	103	65.1	58	62.0	45	70.5
Weekend	47	34.9	26	38.0	21	29.5
<b>Total</b>	<b>150</b>	<b>100.0</b>	<b>84</b>	<b>100.0</b>	<b>66</b>	<b>100.0</b>

<sup>a</sup>Weighted sample size; <sup>b</sup>Weighted percentages; some percentages do not sum to 100% due to rounding

# What would encourage you to walk to your gate?

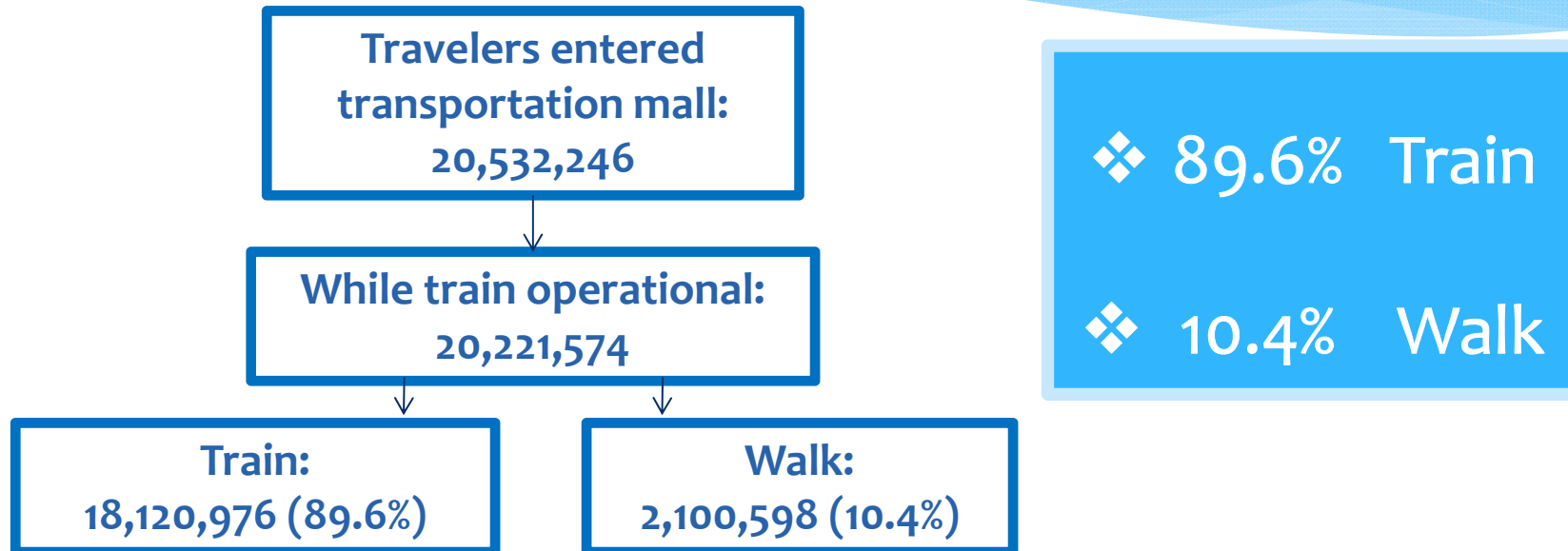




# Before Intervention

## Airport Traveler Traffic Patterns

June 15, 2013 – September 3, 2014



# Change in Walking

Walkers per day				
	Before prompts* (95% CI)	After prompts	Change	Percent change** (95% CI)
<b>Overall</b>	4733 (4393 - 5087)	5395	<b>661</b>	14.0 (6.5 - 21.0)
<b>Weekday</b>	5088 (4795 - 5372)	5766		13.0 (7.7 - 19.0)
<b>Weekend</b>	3924 (3769 - 4073)	4478		14.0 (10.0 - 18.0)

\*Traveler counts estimated in the absence of intervention for the time period after installation of the prompts (September 4, 2014-April 6, 2015), based on counts prior to installation (June 15, 2013-September 3, 2014), adjusted for variation due to time of year and day of week.

\*\*p<0.01 for all change values.

# A Tale of Two ~~Cities~~ Minutes

- \* Wait 2 minutes, on average, see 70 people pass through transportation mall location
- \* Before signs, 7 would walk
- \* Now, 8 would walk

# A Tale of ~~Two Cities~~ 1 City

- \* After prompts were installed, 141,454 additional people chose to walk
- \* Equivalent to population of Syracuse, New York





# Conclusions

- \* Of 46,000 travelers / day entering transportation mall of a large metropolitan airport:
  - \* Point-of-decision prompts increased number of travelers walking by 14%, ~ 660 travelers / day
  - \* Increase has remained steady over 7 months

# Implications for Policy and Practice

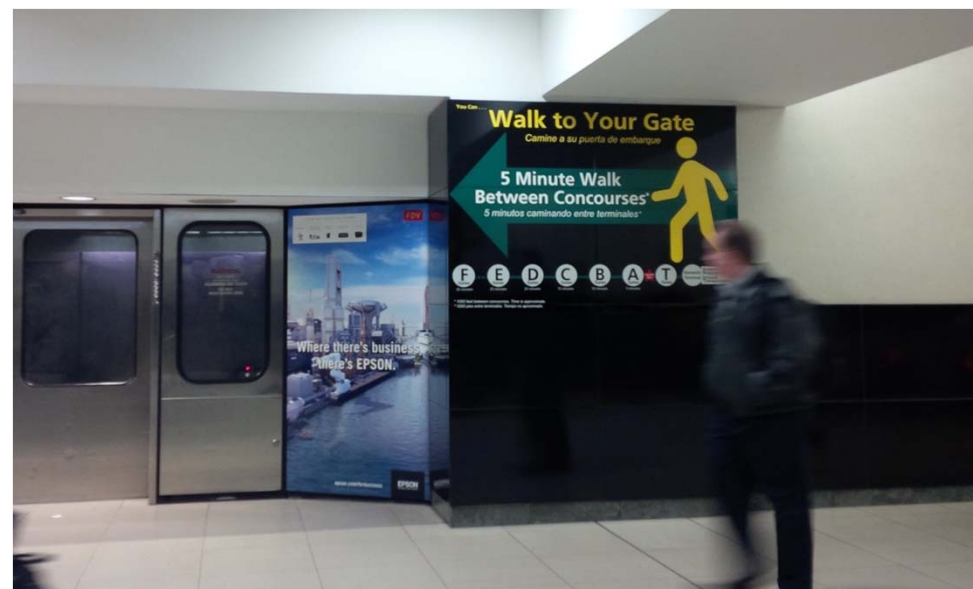
- \* Providing information may help people make the active choice

**REDUCED FAT MILK**  
2% Milkfat

Nutrition Facts	
Serving Size 1 cup (236ml)	
Servings Per Container 1	
Amount Per Serving	
<b>Calories</b> 120	Calories from Fat 45
% Daily Value*	
<b>Total Fat</b> 5g	8%
Saturated Fat 3g	15%
Trans Fat 0g	
<b>Cholesterol</b> 20mg	7%
<b>Sodium</b> 120mg	5%
<b>Total Carbohydrate</b> 11g	4%
Dietary Fiber 0g	0%
Sugars 11g	
<b>Protein</b> 9g	17%
Vitamin A 10%	Vitamin C 4%
Calcium 30%	Iron 0%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	

**NONFAT MILK**

Nutrition Facts	
Serving Size 1 cup (236ml)	
Servings Per Container 1	
Amount Per Serving	
<b>Calories</b> 80	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
<b>Cholesterol</b> Less than 5mg	0%
<b>Sodium</b> 120mg	5%
<b>Total Carbohydrate</b> 11g	4%
Dietary Fiber 0g	0%
Sugars 11g	
<b>Protein</b> 9g	17%
Vitamin A 10%	Vitamin C 4%
Calcium 30%	Iron 0%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	



# Application to Other Sectors: Transportation



- \* Walking directions
  - \* Time it takes to walk
  - \* Distance
- \* Pedestrian signage policies
- \* Benefit to local economies

# Helping Local Economies

- \* THESE ARE ROUGH IDEAS – NEEDS SOME WORK
- \* Percent of trips that could be converted to walking
  - \* For example, walkable routes on DC Metro path
- \* Increase foot traffic through commercial districts
- \* High volume train times – redirect traffic to retail areas

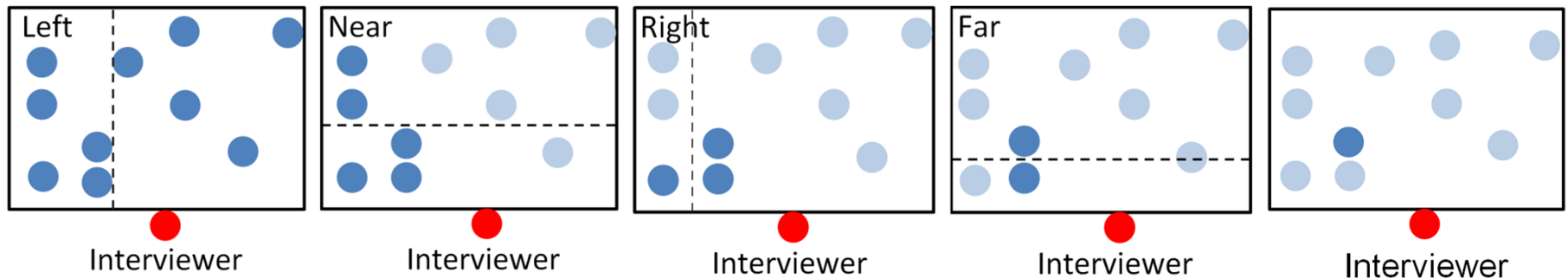
One small nudge for man,  
one giant nudge for mankind!

Thank You!

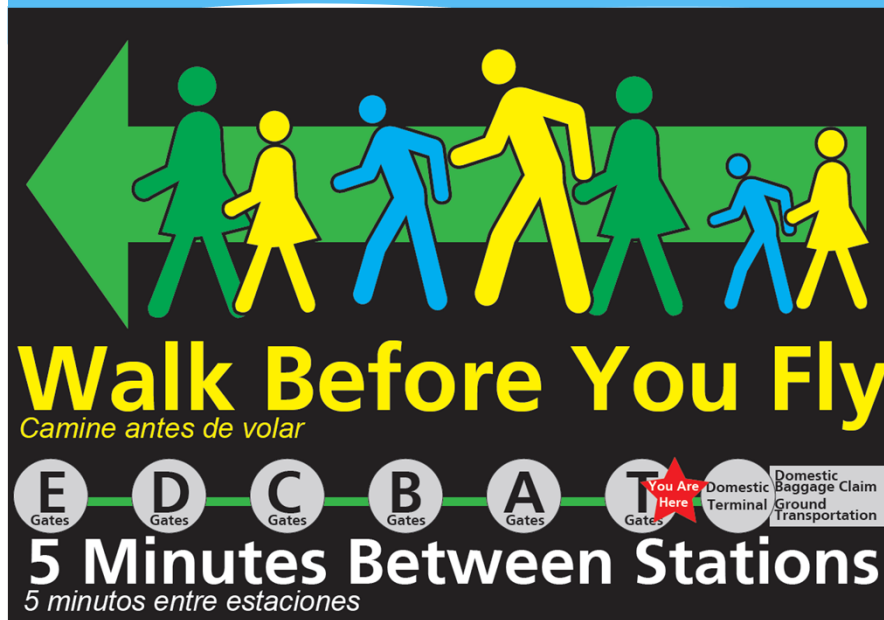
Questions?

# AIR-TRaCS:

Sequence: L N R F L F R N



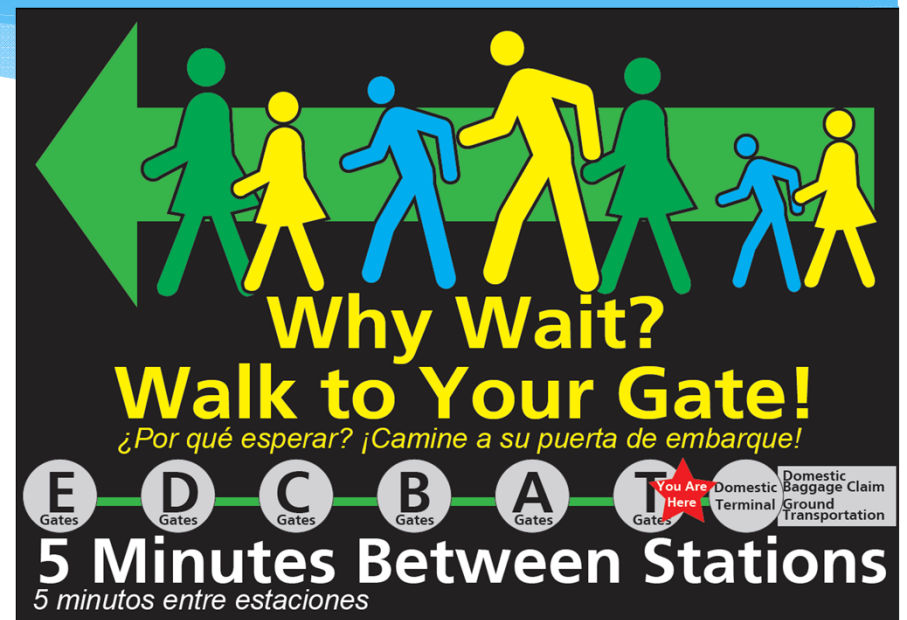
# Message Testing Survey



A sign with a black background and a large green arrow pointing left. Above the arrow are stylized human figures in green, yellow, and blue. Below the arrow, the text reads "Walk Before You Fly" in large yellow letters, followed by "Camine antes de volar" in smaller white letters. At the bottom, there is a diagram of airport gates labeled E, D, C, B, A, and T. A red star is placed over the T gate with the text "You Are Here". To the right of the T gate are labels for "Domestic Terminal", "Domestic Baggage Claim", and "Ground Transportation". Below the diagram, the text reads "5 Minutes Between Stations" in large white letters, followed by "5 minutos entre estaciones" in smaller white letters.

**Walk Before You Fly**  
*Camine antes de volar*

**5 Minutes Between Stations**  
*5 minutos entre estaciones*



A sign with a black background and a large green arrow pointing left. Above the arrow are stylized human figures in green, yellow, and blue. Below the arrow, the text reads "Why Wait? Walk to Your Gate!" in large yellow letters, followed by "¿Por qué esperar? ¡Camine a su puerta de embarque!" in smaller white letters. At the bottom, there is a diagram of airport gates labeled E, D, C, B, A, and T. A red star is placed over the T gate with the text "You Are Here". To the right of the T gate are labels for "Domestic Terminal", "Domestic Baggage Claim", and "Ground Transportation". Below the diagram, the text reads "5 Minutes Between Stations" in large white letters, followed by "5 minutos entre estaciones" in smaller white letters.

**Why Wait?  
Walk to Your Gate!**  
*¿Por qué esperar? ¡Camine a su puerta de embarque!*

**5 Minutes Between Stations**  
*5 minutos entre estaciones*

Is the sign clear?

Which sign do you prefer?

Do you have any suggestions for improving the signs?



# Message Testing Findings: Summary

- \* **De-clutter**
- \* **Remove walking people**
- \* **Make time stand out more**
- \* **Make arrow stand out more**
- \* **Show time between multiple concourses**
- \* **Use shorter message**

# Transportation Mall Walkway

