

Clean Air  
Initiative



Iniciativa de  
Aire Limpio

# Second Clean Air Community Survey Results

## Imperial County – Mexicali

### June 2005

Improving the air quality and health of citizens in Imperial County and the Mexicali border region through education, advocacy, and support.

# Purpose of Survey

To assess community perceptions, awareness, and concerns about air quality issues

Questions included:

- Household demographics & characteristics
  - Health status of household members
  - Awareness & perceptions about air quality
  - Perceptions & beliefs about collective and individual efforts to improve air quality
  - Concerns and priorities regarding air quality issues
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- First Survey conducted in 2003
  - Survey Design, Analysis and Report by National Latino Research Center, Cal State San Marcos

# Clean Air Initiative Intervention

- Since first Clean Air Survey the Clean Air Initiative:
  - has worked with stakeholders in the community to address clean air issues,
  - has outreached to 3,015 border residents
  - has advocated for systems change in air quality monitoring and control
  - has held 3 binational community workshops
  - has actively engaged in public policy issues regarding clean air and public health.

# Overview of Community Survey

- ❖ 306 interviews via door-to-door survey by promotoras from Comité Cívico Del Valle between November 2004 and March 2005

## Data Collection Sites Included

### Imperial County Locations (N=155)

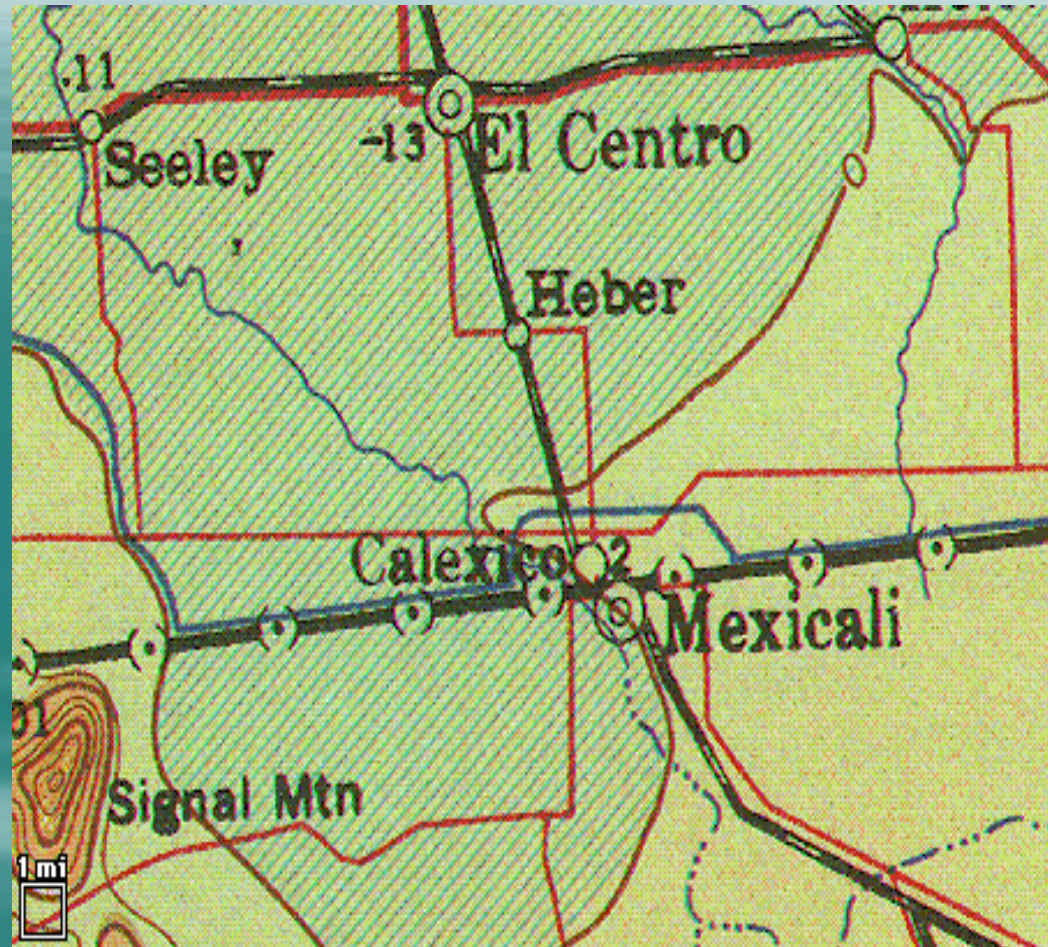
- (1) Seeley- a rural community surrounded by agricultural fields
- (2) St. Mary's School- located in an affluent area in El Centro
- (3) Jefferson Elementary (Calexico)- near border / low income

### Mexicali Locations (N=151)

- (1) Marcelino Magana - rural area adjacent to power plants and
- (2) Villafontana is located in an affluent area of Mexicali
- (3) Escuela Leona Vicario neighborhood in center of Mexicali

# Demographics of Border Region

- Imperial County mostly rural with approx. 142,000 people
- Mexicali more urban & industrial with rapidly growing population of nearly 800,000 (3<sup>rd</sup> largest city on Mexican border)



# Characteristics of Survey Participants

## Ethnicity & Birth Origin

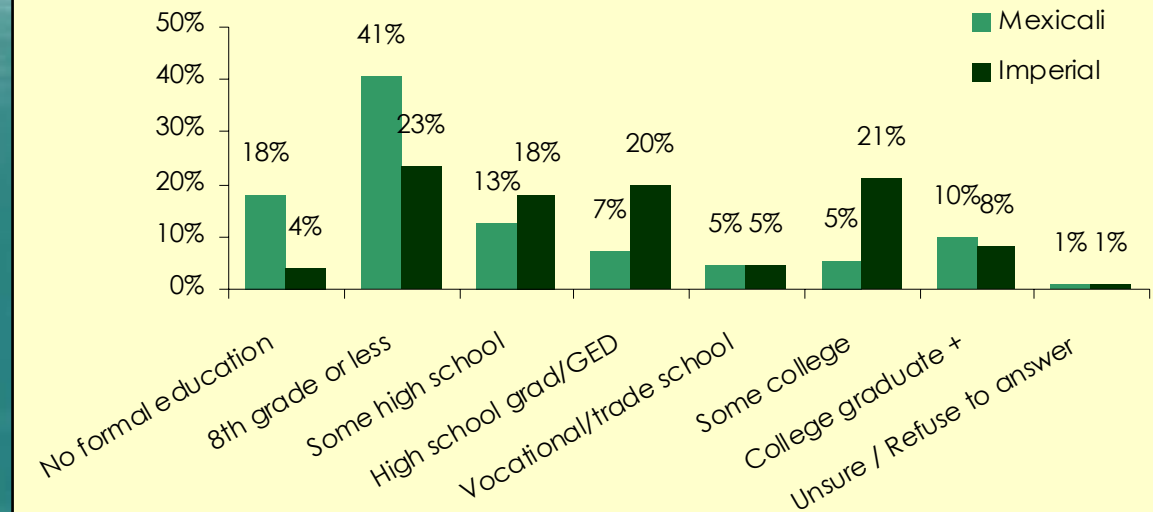
### Imperial

- 89% Latino
- 62% Born in Mexico

### Mexicali

- 100% Latino
- 97.4% Born in Mexico

Figure 2: Educational Attainment of Survey Participants



## Educational Attainment

- In Mexicali, 18% of participants reported having no formal education, 40.7% of the participants had 8th grade education or less
- In Imperial County, 3.9% of participants had no formal education, 23.2% had an 8th grade education or less

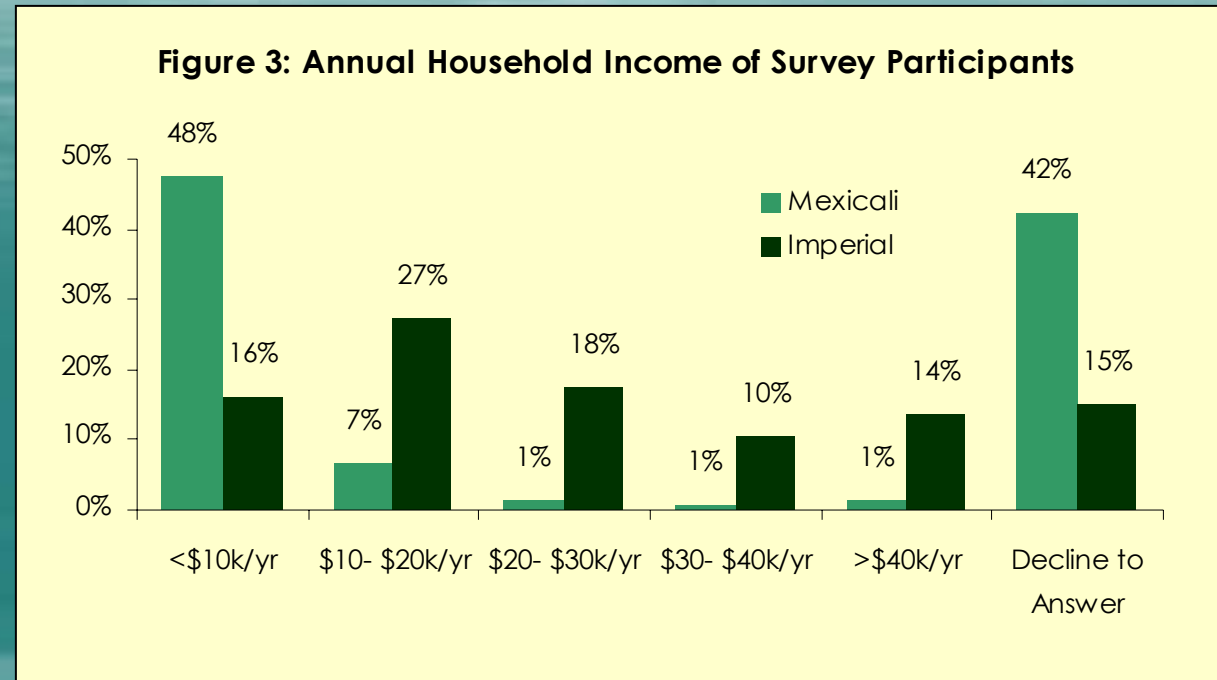
# Housing Characteristics

- 83.4% of participants in Mexicali owned their home while 76.7% of the participants in Imperial were home owners.
- Households in Mexicali had 1-7 adults per household; 53% of all households have 2 adults
- Households in Imperial had 1-5 adults per household; 53% of all households have 2 adults
- In Mexicali: 55% of households have children ages 0-6 children living at home.
- In Imperial: 61.3% of households have children ages 0-5 children living at home.

# Socio-Economic Characteristics

## Household Income

- Total of 42% in Mexicali and 15% in Imperial declined to answer
- Of those who responded, 31.6% reported annual incomes under \$10,000 (USD)





# Income and Savings

<i>At the end of each month, how much money does your family have?</i>	Mexicali	Imperial
Not enough to pay the bills	22.7%	7.1%
<b>Just enough to pay the bills</b>	<b>49.3%</b>	<b>49.7%</b>
A little extra after the bills are paid	4.0%	20.6%
A lot extra after the bills are paid	0.7%	4.5%
Refuse to answer	23.3%	18.1%

# Socio-Economic Characteristics

## Employment Status

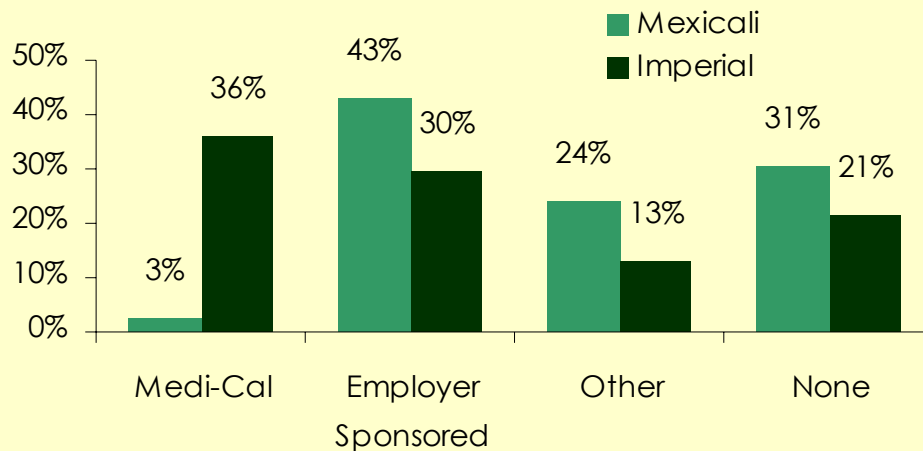
- Types of employment were diverse and included both professional as well as blue collar workers
- 13% of participants had one or more migrant or agricultural workers in the household (19.7% in Imperial and 6.1% in Mexicali)
- 51% of the participants were employed & over 83% reported that another member of the household was employed

## Modes of Transportation

- 75.7% of participants used cars as main mode of transportation & 8.8% used a combination of car and walking
- Data collected for 181 children and found that 49% walk to school, 36% ride in a car to school and 14% take the bus.

# Health Status

**Figure 4: Health Insurance of Survey Participants**



## Health Insurance

- 36% of Imperial participants have Medi-Cal coverage, 30% had employer-sponsored insurance and 21% reported having “None”
- 43% of Mexicali participants reported having employer sponsored insurance; 31% reported having “none” and 24% of reported “Other”

# Health Care Utilization

- Most Mexicali residents (74.5%) report having a regular source of medical care.
  - 39.6% regularly use a private doctor,
  - 18.8% use a clinic
  - 10.7% use the emergency room.
  - 5.4% report regularly using home remedies
  - 25.5% report either “other” or no source of regular medical care.
- In Imperial County 92.8% of Imperial residents reported having a regular source of medical care.
  - 49.7% use a private doctor regularly
  - 37.9% a clinic
  - 5.2% the emergency room.
  - 7.2% of Imperial residents reported either “other” or no source of regular medical care.

# Health Status

## Smoking & Exposure to Second Hand Smoke

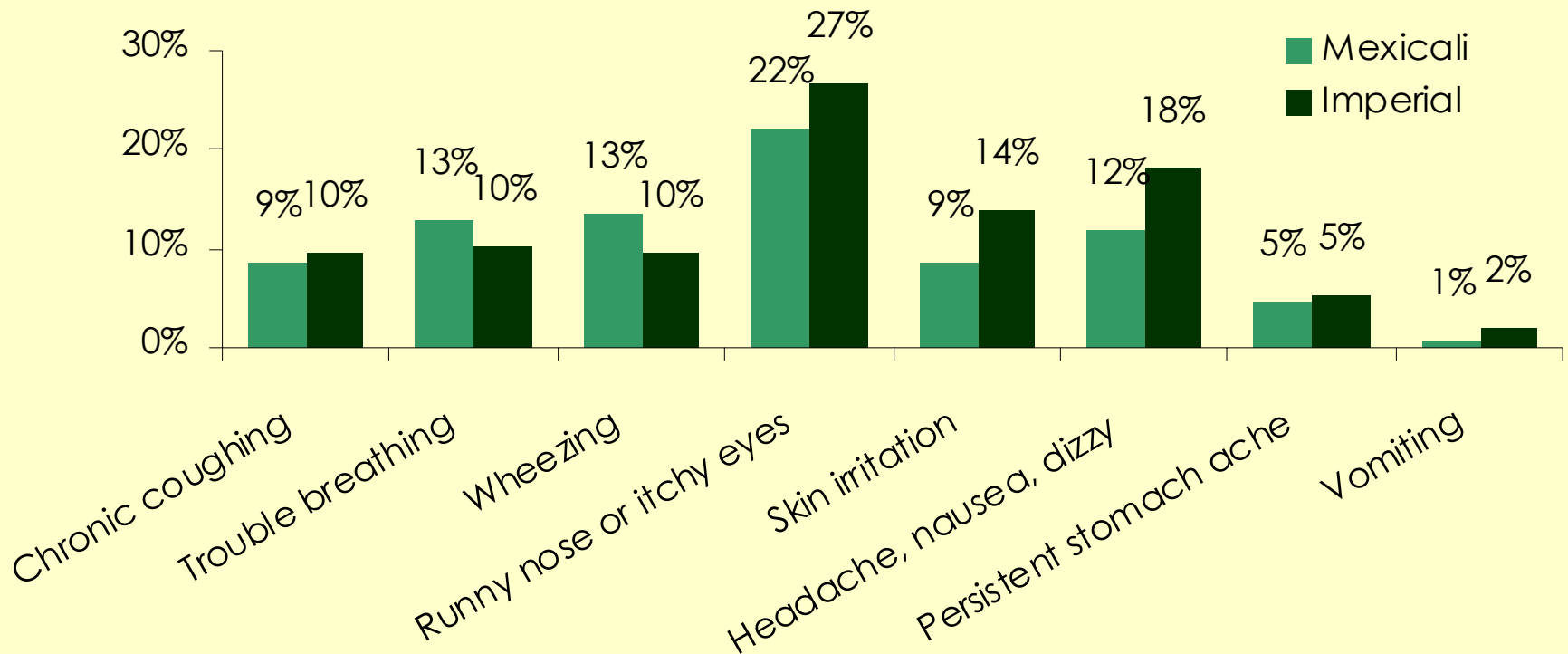
- The majority of participants (85%) reported that they did not smoke and 90% said they did not allow smoking inside their homes.
- Approximately 29.8% of households had at least one individual who smoked.

## Occupational Health / Exposure to chemicals

- One fourth (25.1%) of employed participants reported that they are commonly exposed to chemicals at work.
- Among participants who have at least one employed household member, 35.1% reported that at least one household member is commonly exposed to chemicals at work.
- Commonly listed chemical exposures include: pesticides, gasoline, paints, solvents, bleach, ammonia, and other cleaning products.

# Health Symptoms

**Figure 5: Percentage of Participants Complaining of Various Health Symptoms**



# Health Symptoms & Asthma

<b>Asthma Rates</b>			
<b>Mexicali</b>		<b>Imperial</b>	
Participants with diagnosed asthma	Households with 1 or more diagnosed	Participants with diagnosed asthma	Households with 1 or more diagnosed
7.9%	15.2%	7.1%	26.8%

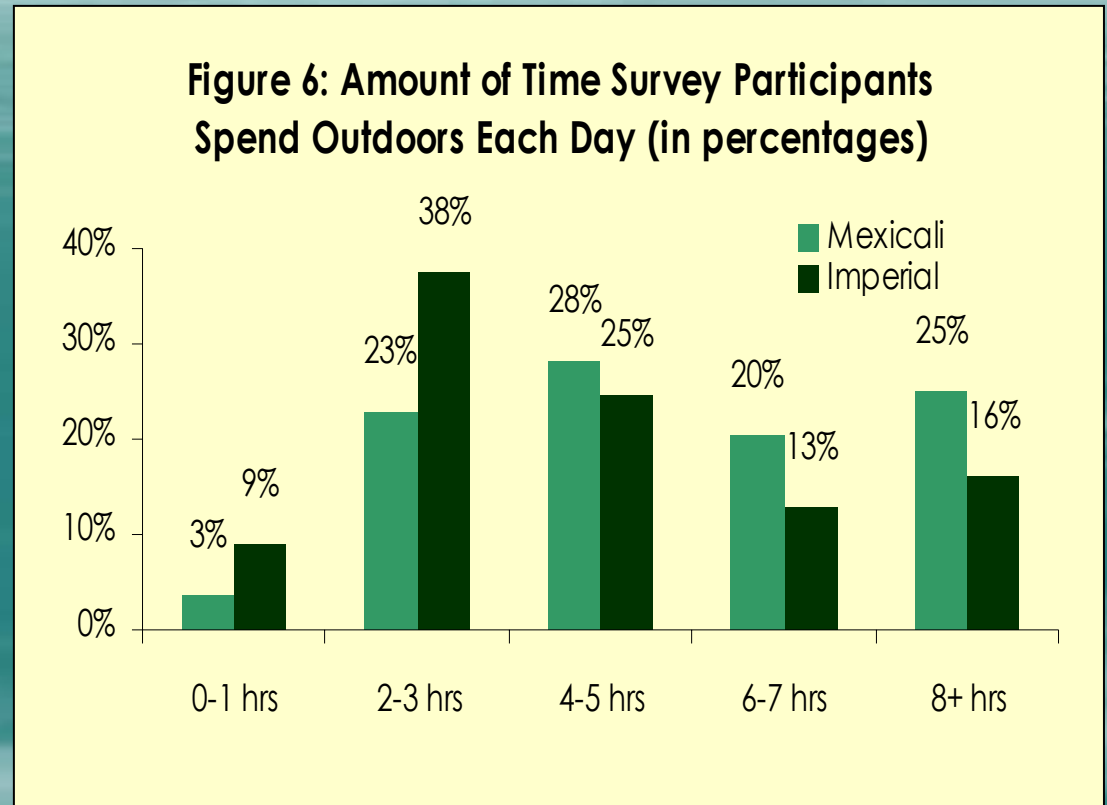
<i>Are you aware of any asthma programs in your neighborhood?</i>	<b>Yes</b>	<b>No</b>	<b>Don't know</b>
Participants with diagnosed asthma (n=23)	4.3%	95.7%	0.0%
Households with diagnosed asthmatic(s) (n=64)	10.9%	89.1%	0.0%
Households with no diagnosed asthmatic(s) (n=239)	3.8%	95.8%	0.4%
All households (regardless of asthma diagnosis) (n=305)	5.2%	94.4%	0.3%

A startlingly large percentage of participants with diagnosed asthma in the home report having no knowledge of local asthma programs.



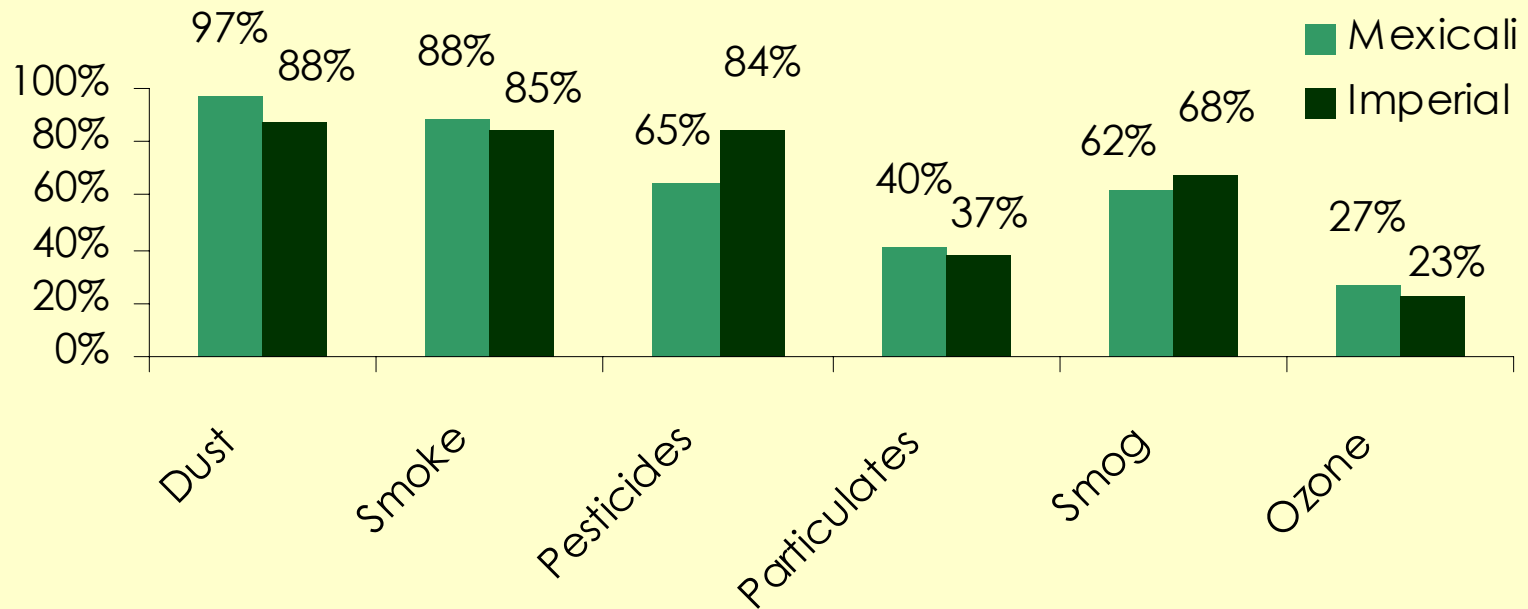
# Outdoor Activity

- Average time spend outdoors is 5 hours
- 41% of survey participants reported spending 2 to 4 hrs outdoors each day.
- One out of five (21%) spend 8 hrs or more outdoors, this exceeds the number of participants who are employed in agriculture
- Of the households with children, 36% had at least 1 child participating in organized sports.



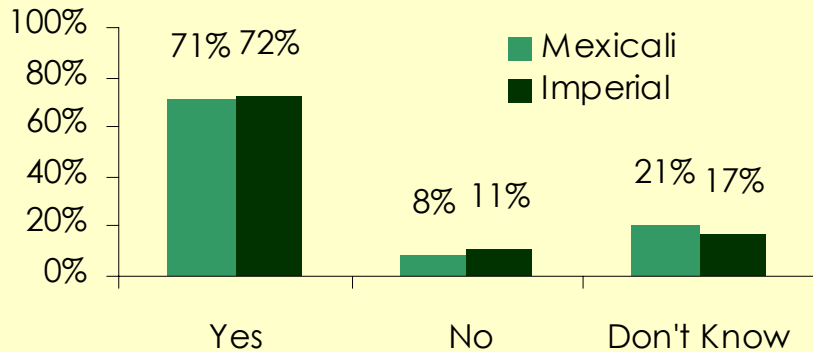
# Awareness About Air Pollution

Figure 7: Percent of Residents Who Believe the Following Substances are Present in the Air

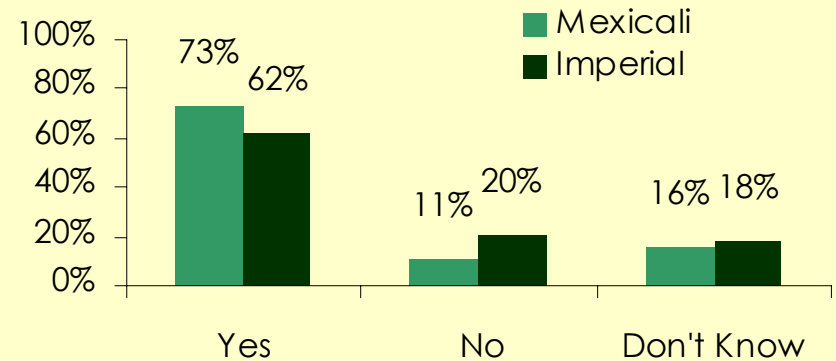


# Air Pollution Awareness

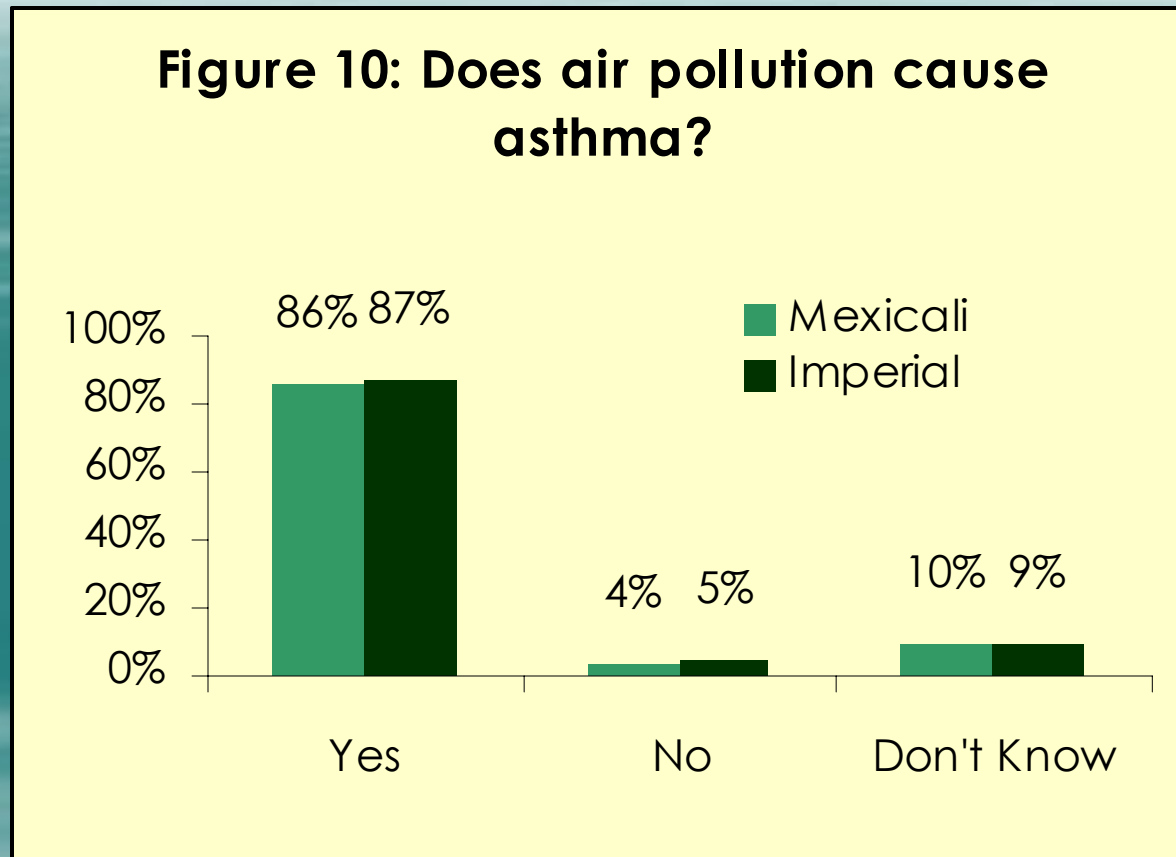
**Figure 8: Does air pollution in your community affect your health or your family's health?**



**Figure 9: Does air pollution contribute to any of your child's health problems?**



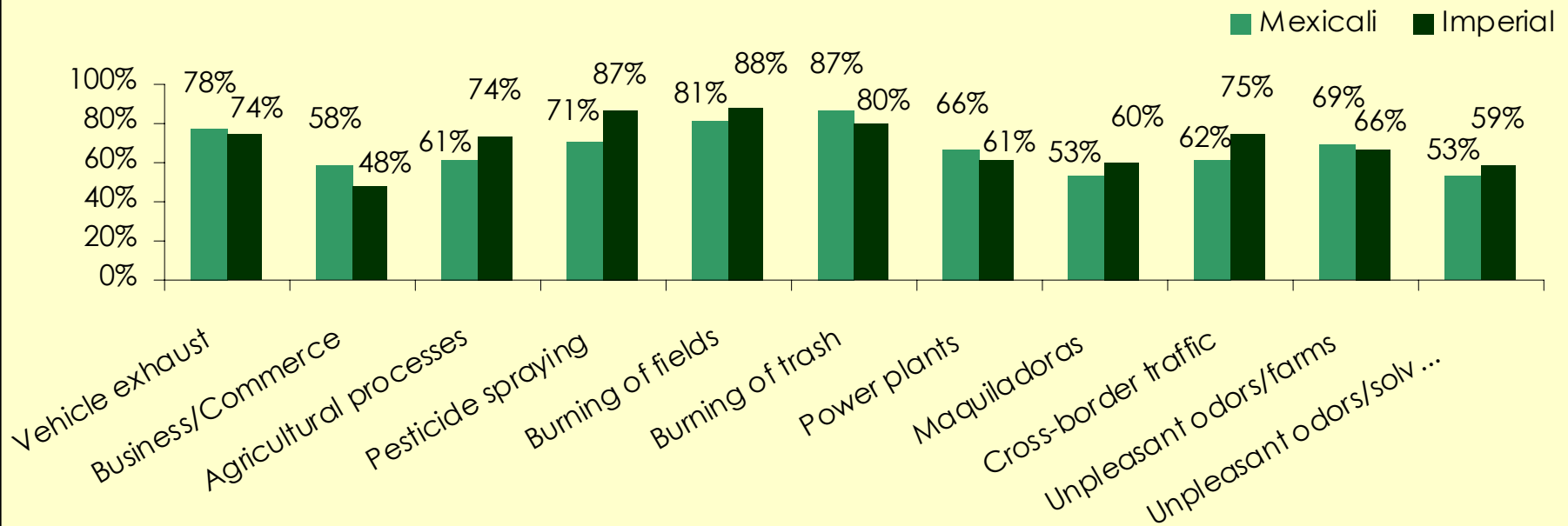
# Air Pollution Awareness



The majority of respondents feel that air pollution can cause asthma

# Common Air Quality Concerns

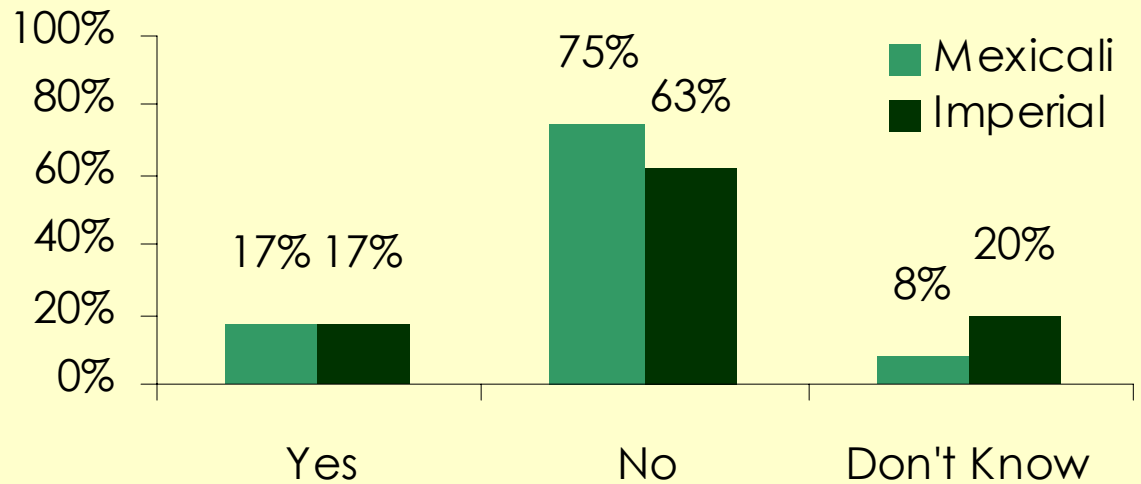
Figure 11: Percentage of Participants Expressing "A Lot" of Concern About Air Quality Issues in the Mexicali & Imperial Border Region



# Empowerment & Advocacy

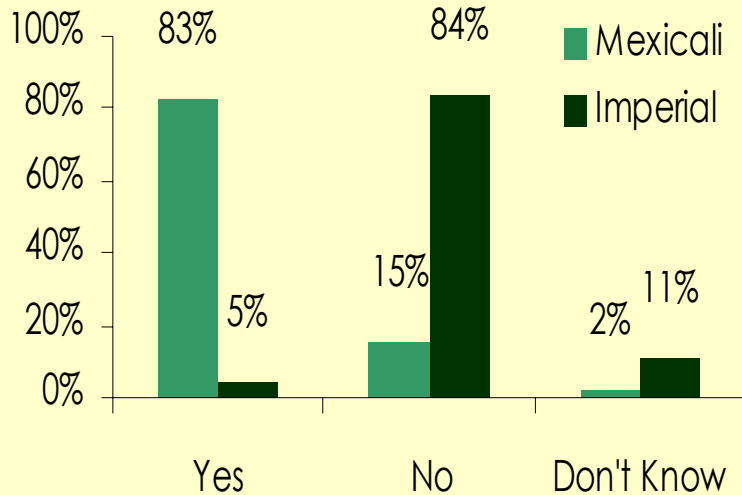
The majority of participants feel that the government is not doing enough about air quality issues

**Figure 12: Is the Government Doing Enough?**

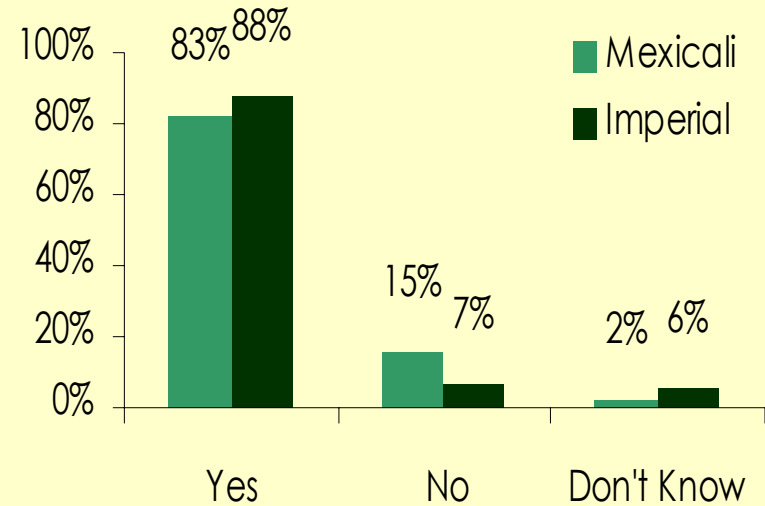


# Participation in Air Quality Efforts

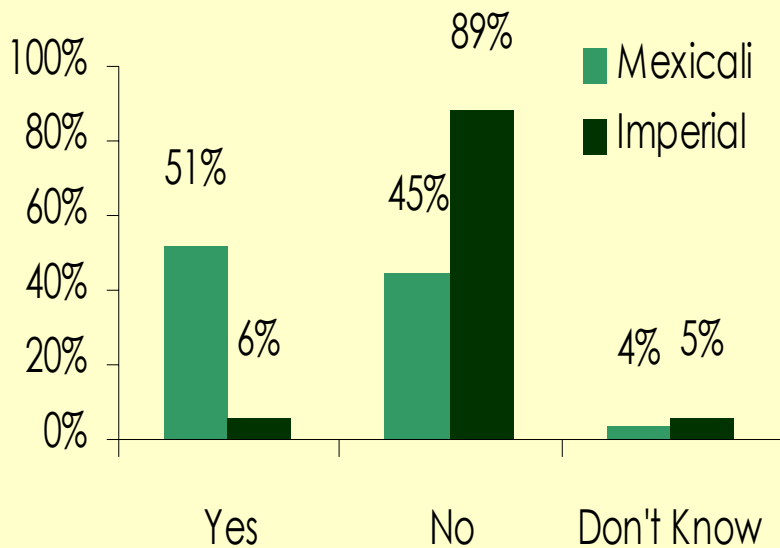
**Figure 13: Can residents help improve air quality? (1st Survey)**



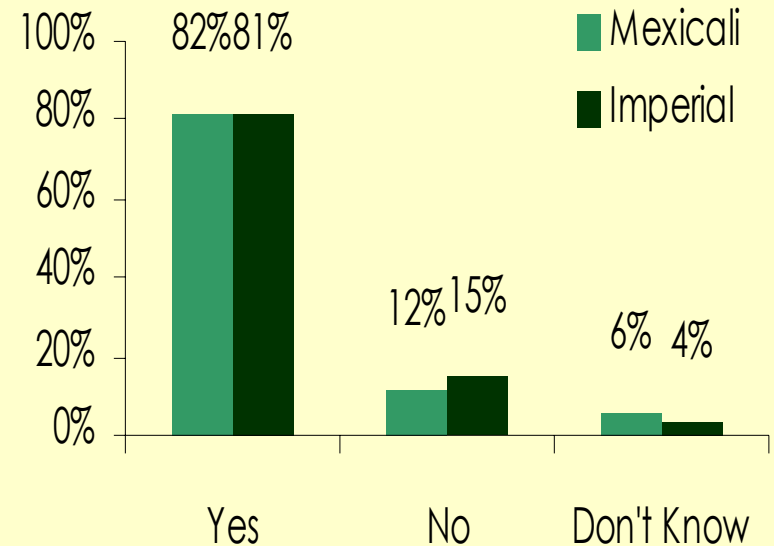
**Figure 14: Can residents help improve air quality? (2nd Survey)**



**Figure 15: Can you help improve air quality? (1st Survey)**



**Figure 16: Can you help improve air quality? (2nd Survey)**



While the samples in each survey were different it is encouraging to see an overall change in the community's belief that they can help improve air quality

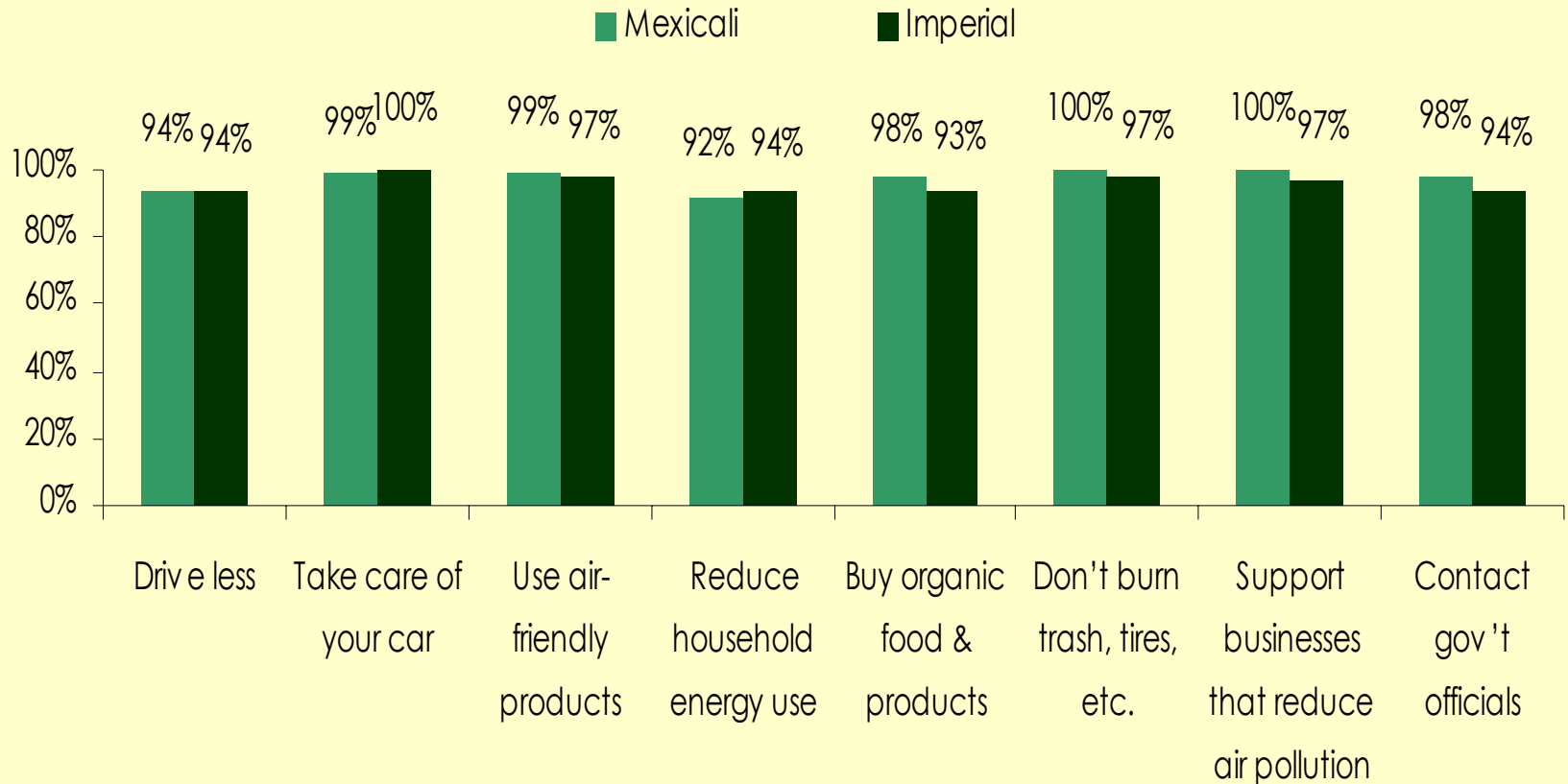


## ***Whose responsibility is it to ensure clean air?***

	All	Mexicali	Imperial
<b>Everyone</b>	63.4%	63.6%	63.2%
<b>Government</b>	30.1%	27.8%	32.3%
<b>Ours</b>	7.5%	9.9%	5.2%
<b>People/citizens</b>	6.9%	7.3%	6.45%
<b>Community</b>	3.9%	2.0%	5.8%
<b>Businesses/Ag/Industry</b>	1.6%	1.3%	1.9%
<b>Farm workers</b>	0.3%	0.7%	-----
<b>Nobody</b>	0.3%	0.7%	-----
<b>Don't know</b>	0.3%	-----	0.6%

*Note: Participants were allowed to list multiple responses to this question, so a single participant may be represented in more than one row, and percentages in each column will not add to 100%.*

**Figure 18: In what ways do you think you can help to clean up your neighborhood's air pollution?**

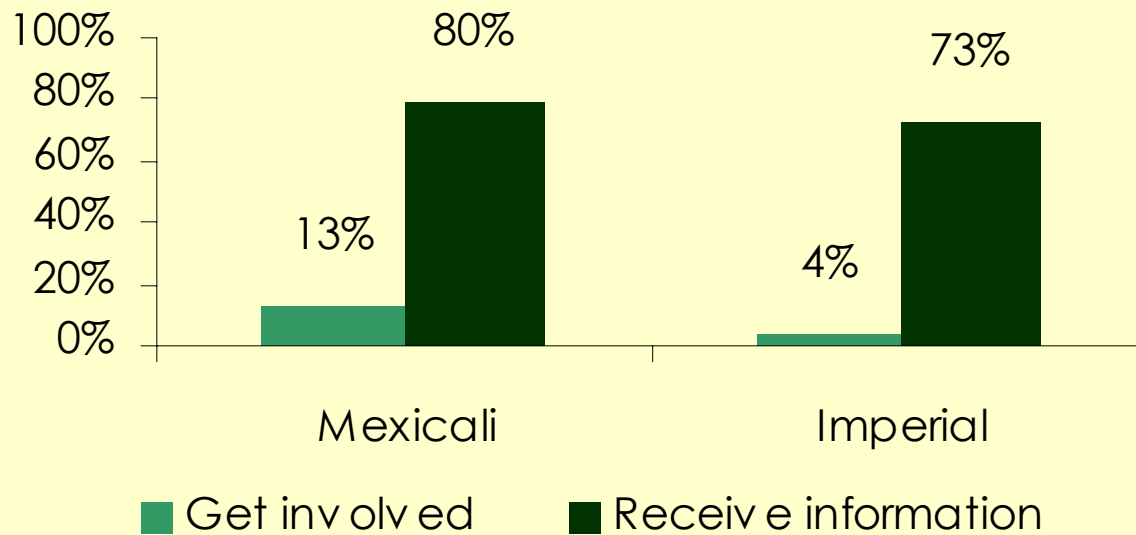


When given specific examples of how they can contribute almost all participants stated that yes there are ways they can help clean up air pollution.

# Education about air pollution

- 64% of participants had been exposed to radio, television, or newspaper advertisements about air pollution or ways to reduce air pollution during the previous 12 months.
- More Mexicali than Imperial residents were exposed to air pollution ads via radio and television
- More Imperial than Mexicali residents were exposed to such ads in the newspaper.

**Figure 17: Percent of Residents Interested in Getting Involved in Improving Air Quality**



# Clean Air Initiative: Promotoras and name recognition

- Imperial residents were twice as likely as Mexicali residents to recall having been visited by a *promotora* about air pollution or asthma.
- Imperial residents were *six times* more likely than Mexicali residents to say that they had heard of the Clean Air Initiative.

	All participants	Mexicali	Imperial
	Yes	Yes	Yes
Have you been visited by a <i>promotora</i> about air pollution or asthma?	6.3%	4.0%	8.5%
Have you heard of the Clean Air Initiative?	11.8%	3.3%	20.0%

# Key Findings

- Residents are concerned with the impact that air quality has on their health and that of their children
- Residents recognize the connection between air quality and asthma—however there is a lack of awareness about local asthma programs
- Residents feel that the government is not doing enough to protect them from air pollution
- The perception that residents and individuals have the power to improve air quality differed substantially in this second sample. In this second sample participants overwhelmingly felt that both residents and individuals can help improve air quality

# Key Findings

- Participants in Imperial county were more likely to have knowledge of the Clean Air Initiative and to have been visited by a *promotora*
- Over half of all participants felt that it is everyone's responsibility to ensure clean air
- Residents acknowledge ways that they can help in improving air quality and requested access to more information.

# Acknowledgements

The Clean Air Initiative would like to thank the following individuals and organizations for their assistance and support!

- The 306 families who participated in the survey
- National Latino Research Center
- Comité Cívico Del Valle
- American Lung Association of San Diego and Imperial Counties
- The San Diego Regional Asthma Coalition
- The California Endowment