

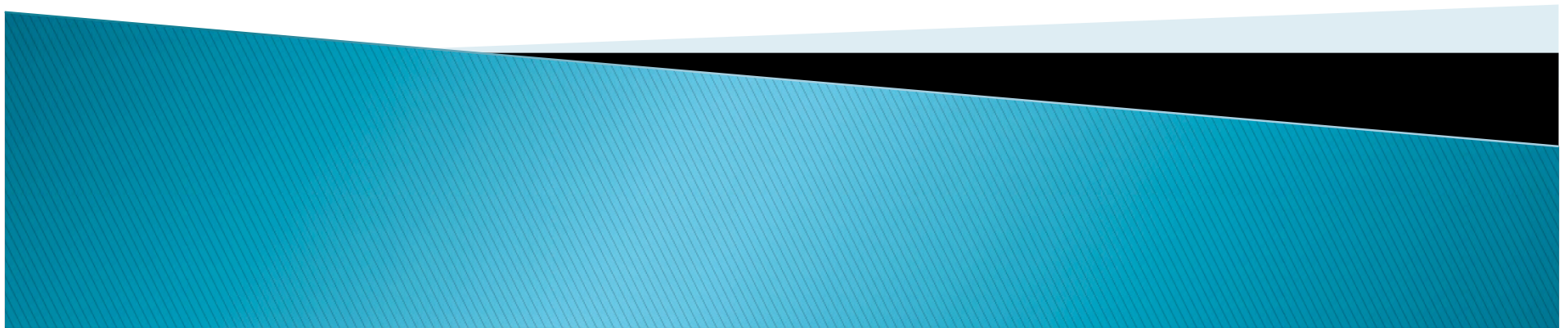
# Wireless Utility Meter Safety Impacts Survey

Final Results Summary

September 13, 2011

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# Objectives

- ▶ To investigate reported public health and safety complaints about wireless utility meters.
- ▶ To evaluate the impacts on health and safety due to wireless utility meters.
- ▶ To determine whether further study is warranted.

## METHODS

- ▶ Survey was designed by the EMF Safety Network (Network).
- ▶ The survey was circulated online through various social media outlets including Networks email list, Facebook, and the California EMF Safety Coalition (a discussion group). The survey was also posted on Networks website: [www.emfsafetynetwork.org](http://www.emfsafetynetwork.org) where visitors were invited to take the survey.
- ▶ 443 responses were received from 7/13/2011 through 9/2/2011.
- ▶ Network commissioned Survey Design and Analysis (SDA) to provide this report of the survey findings.

# Executive Summary – Part I

- ▶ Respondent Makeup
  - 93% are over 40 years old and 43% are over 60 years old
  - 73% are women
  - 78% are from California
  - 68% have Pacific Gas and Electric (PG&E) as their utility provider
  - 49% are EMF Sensitive
- ▶ 41% have had a new wireless meter installed in their home; of these . . .
  - 56% have had it installed for at least six months
  - 89% have electric meters, 53% gas meters and 10% water meters
  - 35% saw an increase in their utility bill
  - 26% have experienced some type of interference
  - 8% experienced burned out appliances or damaged electronics including TV, stereo, computer, refrigerator and other.
- ▶ 76% indicated they have wireless utility meters installed in their neighborhood, town or city.
  - 44% near their home
  - 36% in town

# Executive Summary – Part II

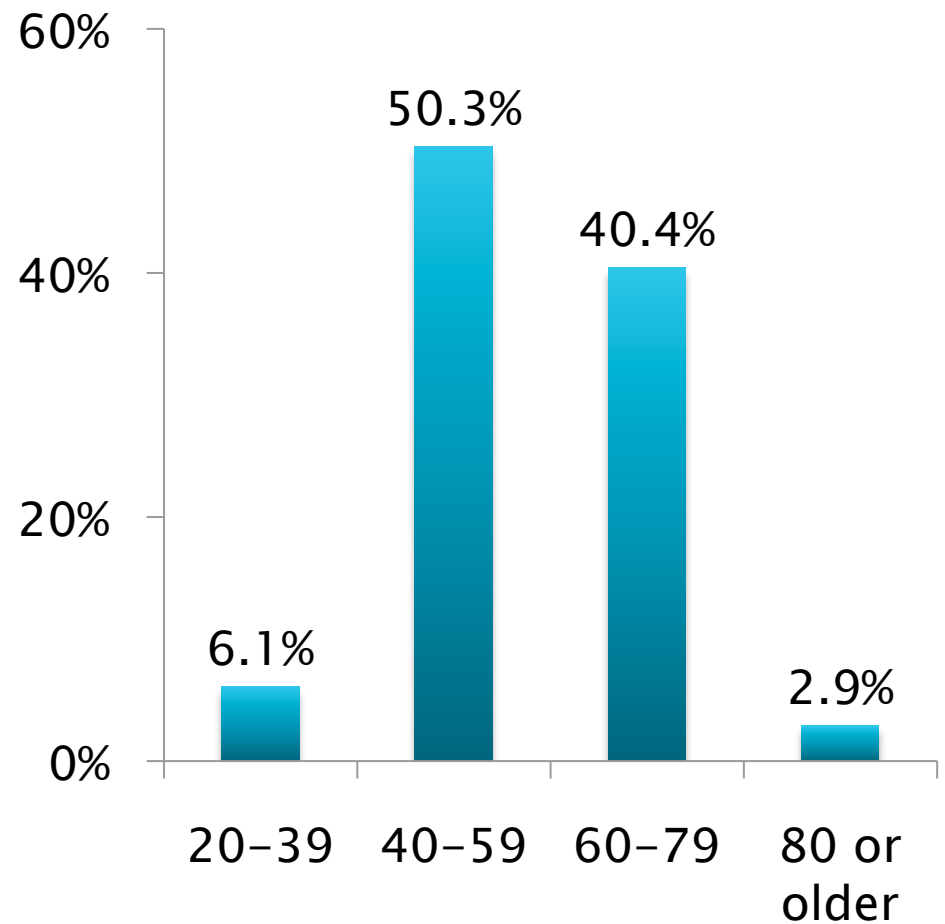
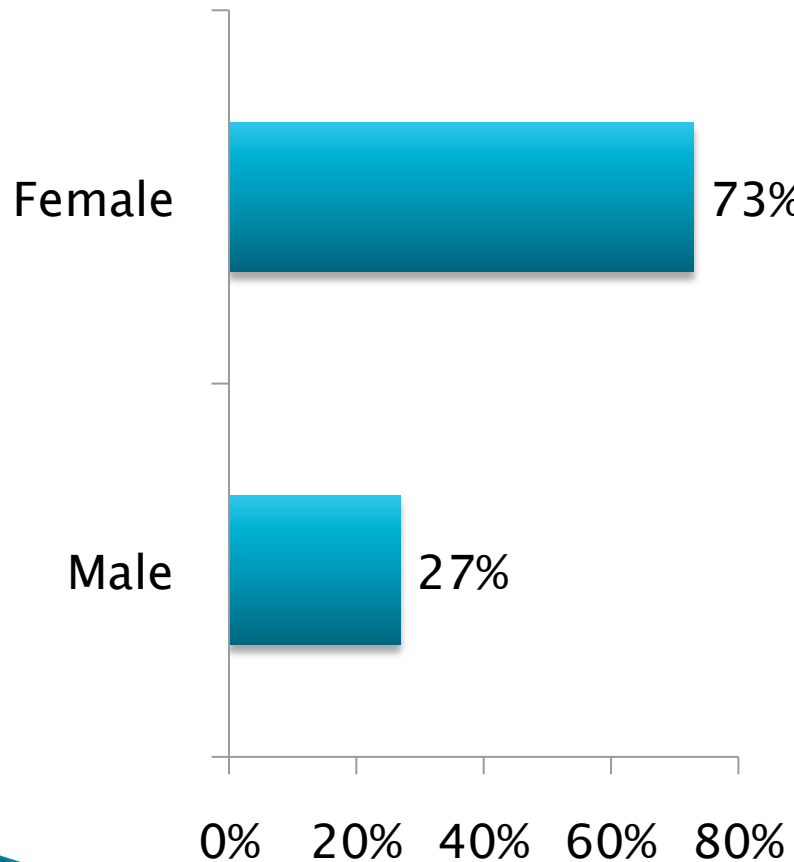
- ▶ Top health issues since new meters installed
  - Sleep problems (mentioned by 49%)
  - Stress, anxiety and irritability (43%)
  - Headaches (40%)
  - Ringing in the ears (38%)
  - Heart problems (26%)
- ▶ 40% (111 people) of those having wireless meters in their homes or community have complained to their utility provider.
  - 96% of these people were either “Unsatisfied” or “Very Unsatisfied” with the handling of their complaint.
- ▶ 32% (88 people) complained to the utilities commission.
  - 96% of these people were either “Unsatisfied” or “Very Unsatisfied” with the handling of their complaint
- ▶ 94% of respondents want to retain or restore their analog meters and 92% of these respondents do not think they should have to pay any additional money.

# Executive Summary – Part III

- ▶ Statistical testing shows the top health symptoms are positively associated with
  - EMF Sensitivity
  - Wireless meters installed in the home

# Demographics

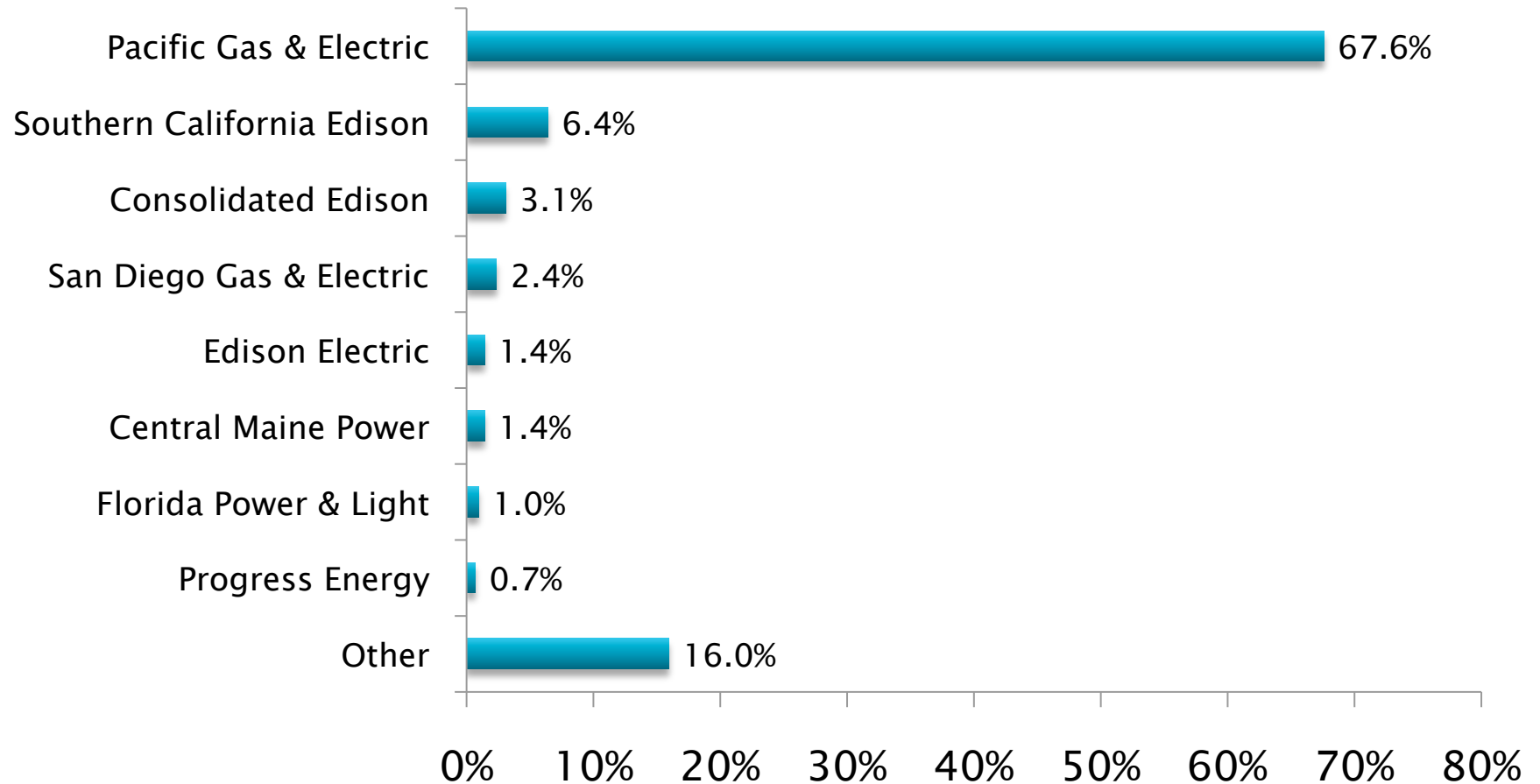
# Respondent Gender and Age





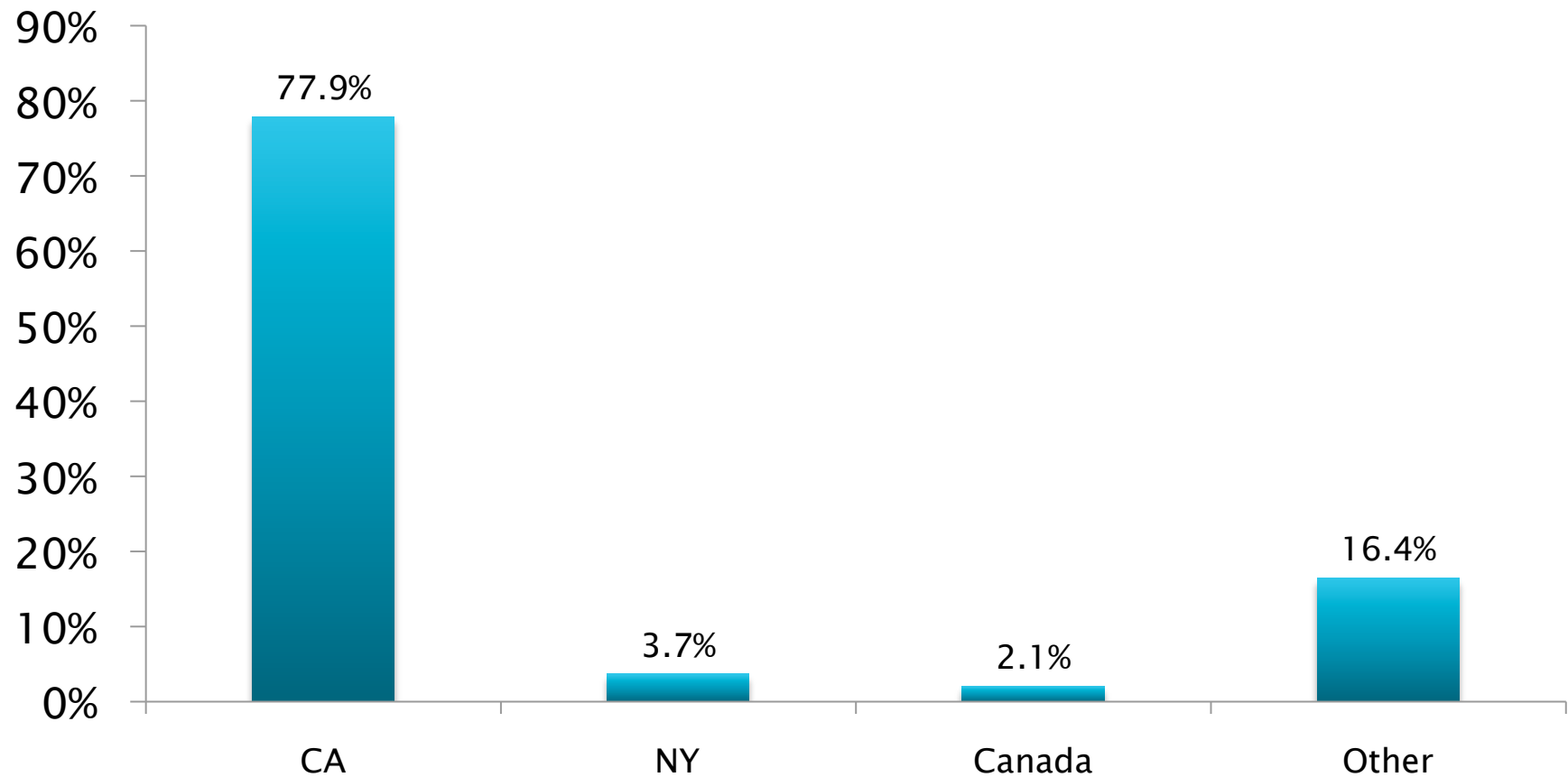
# Utility Provider

Please indicate the name of your utility provider(s). N=420



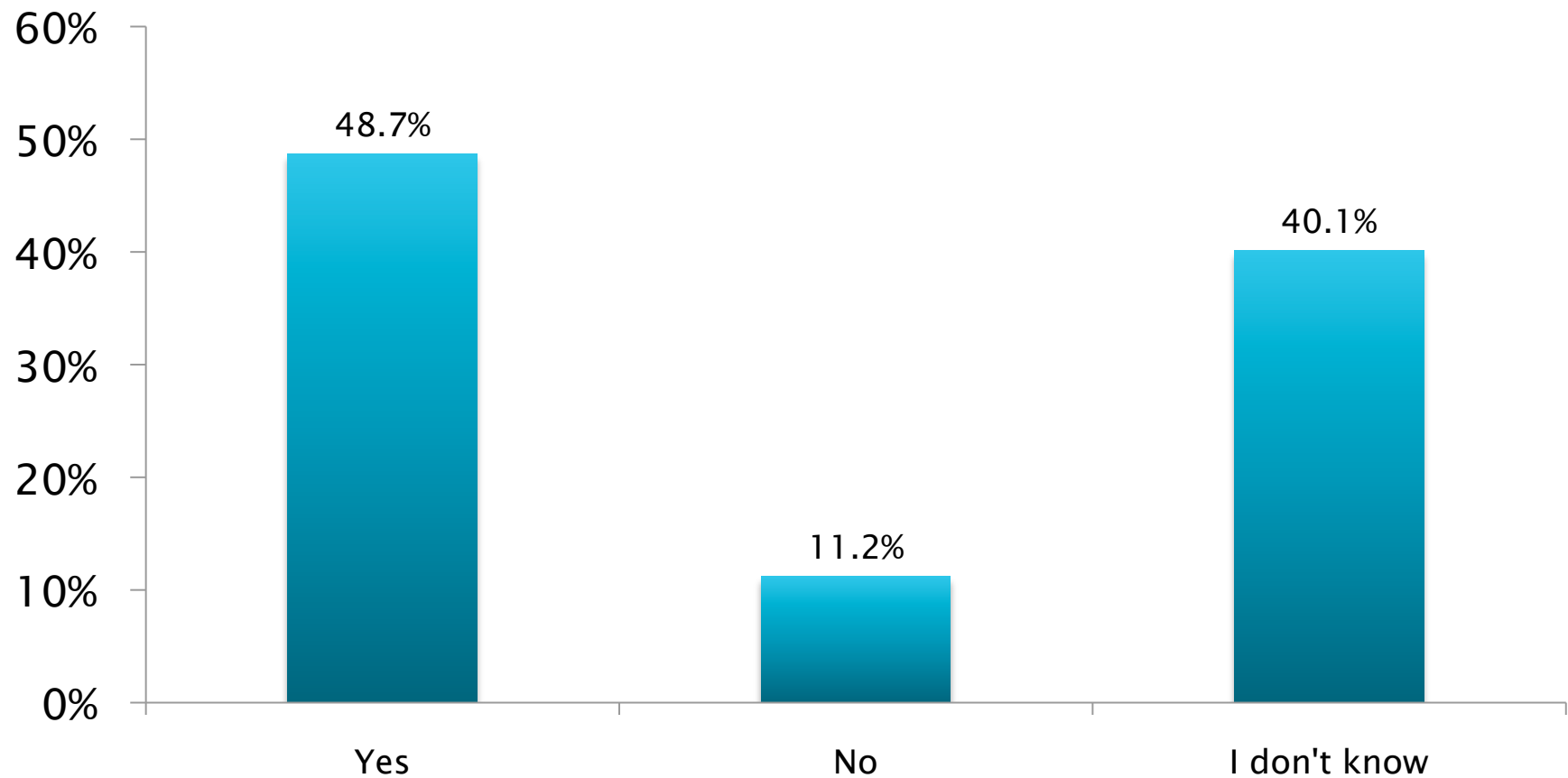
# Place of Residence

Where do you live? N=439



# EMF Sensitivity

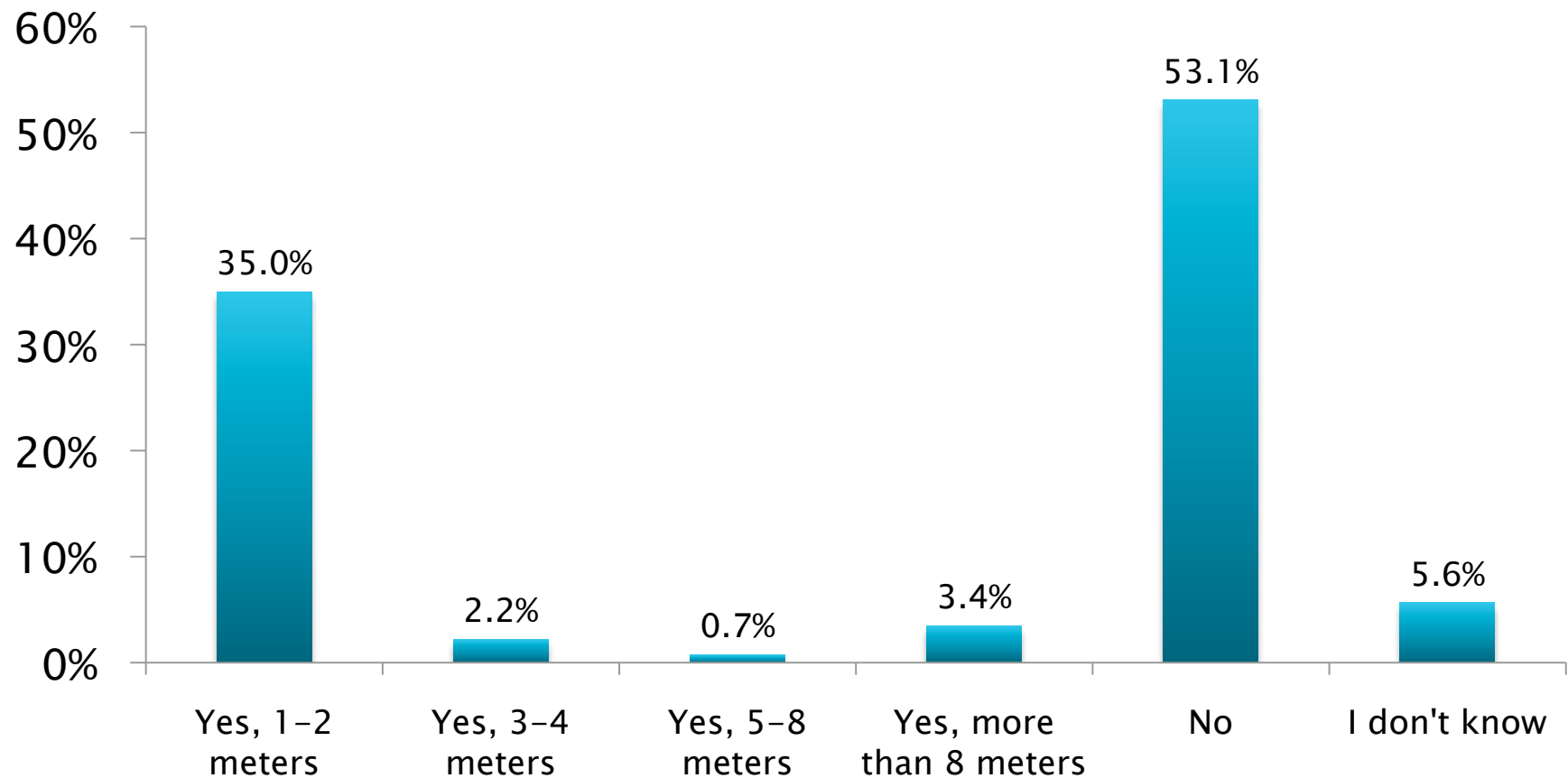
Are you, or is a member of your household, EMF sensitive? N=439



# Wireless Meter Installations

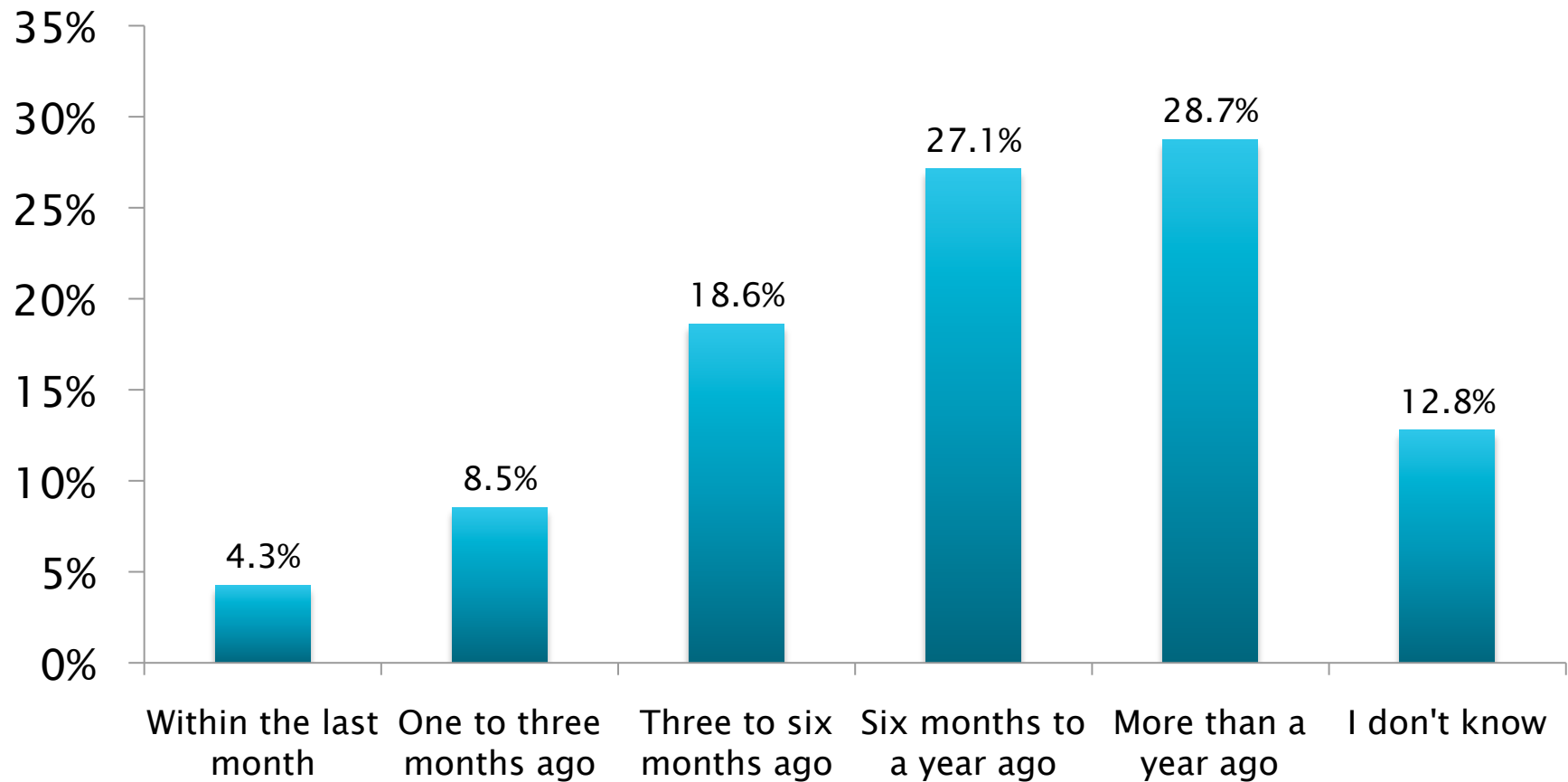
# Wireless Utility Meter Installed in Home

Have you had a new wireless utility meter installed on your home? N=409



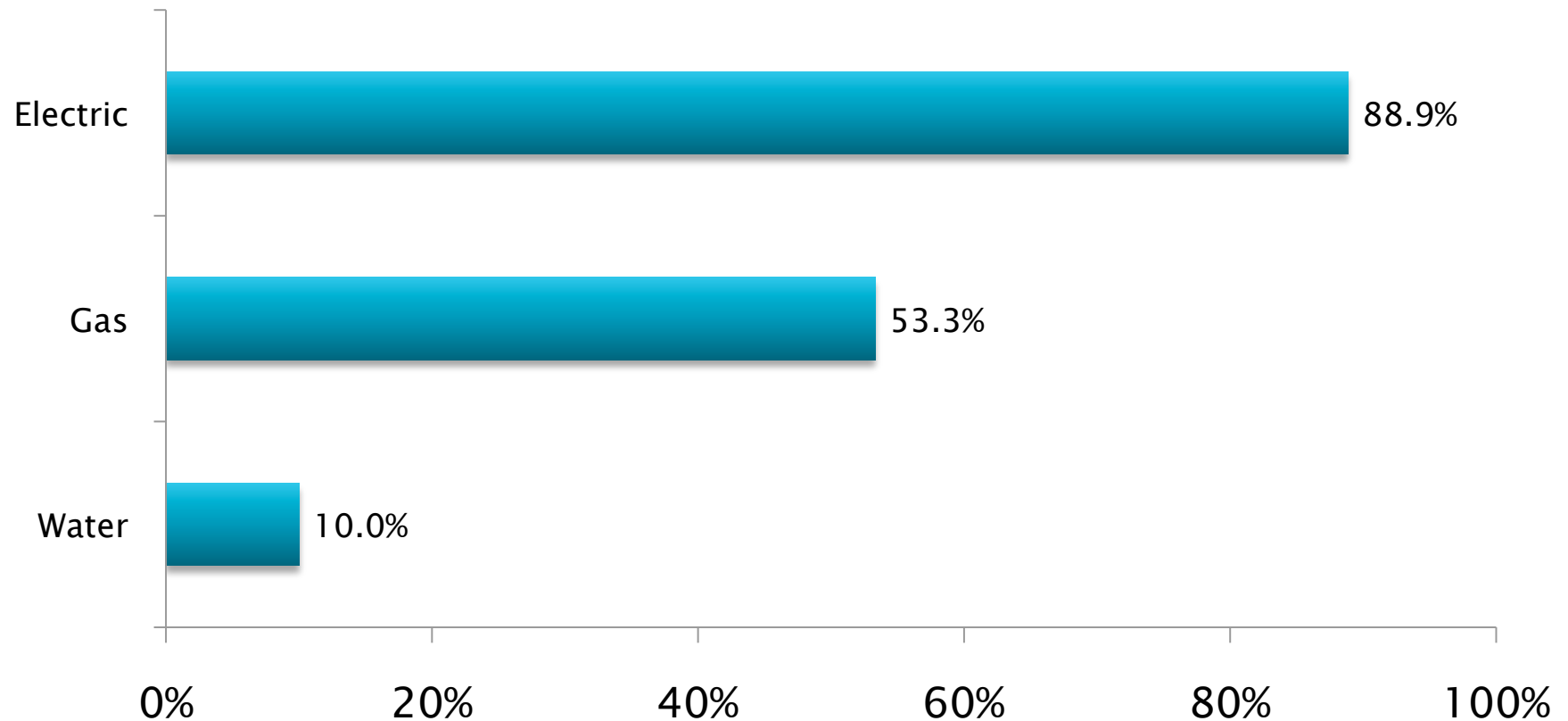
# Wireless Utility Meter Install Time

If yes, how long ago was it installed on your home? N=188



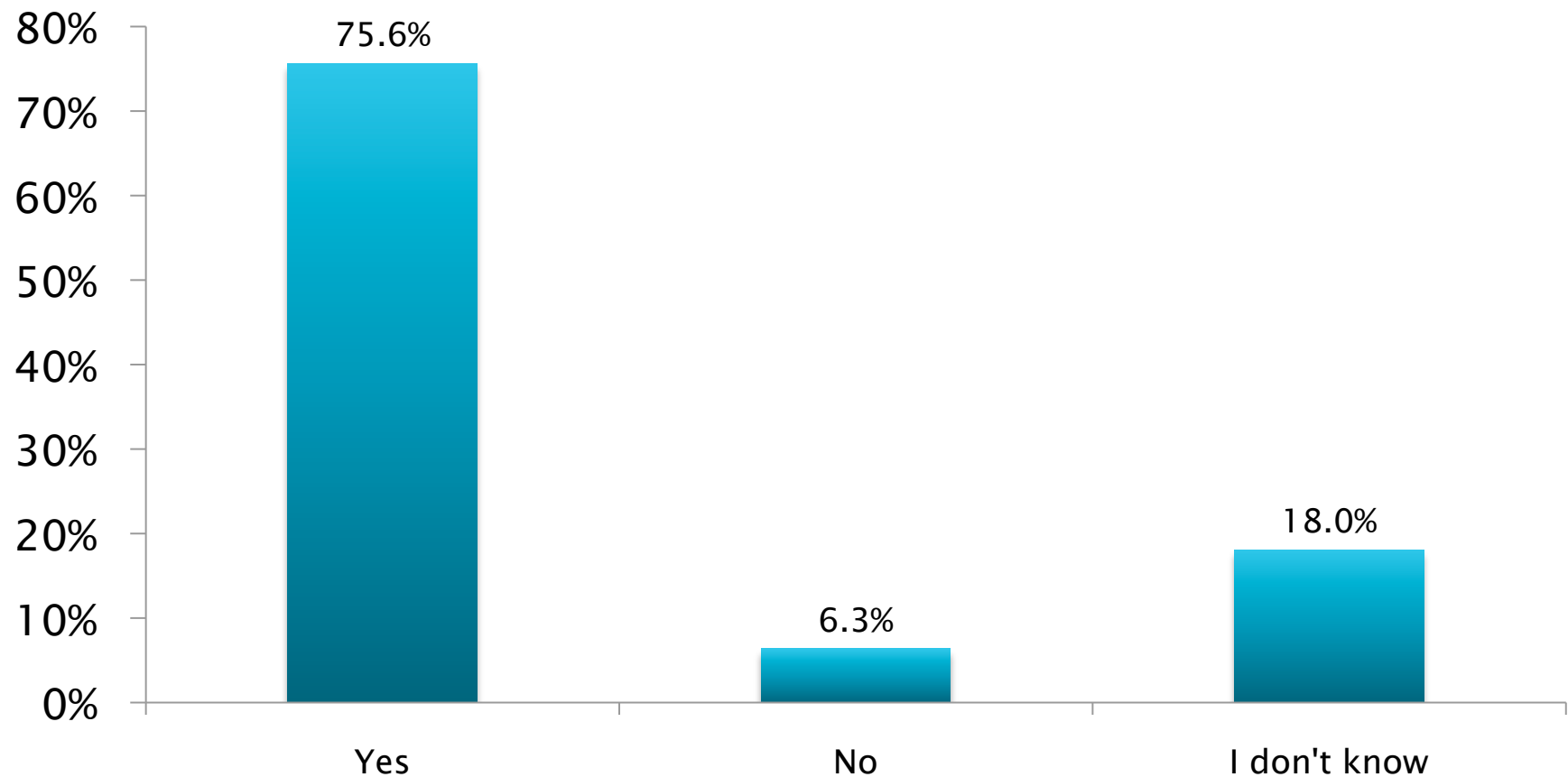
# Type of New Meter Installed

If yes, please indicate the type of new meter installed on your home. (Check all that apply)  
N=160



# Wireless Meters Deployed Near By

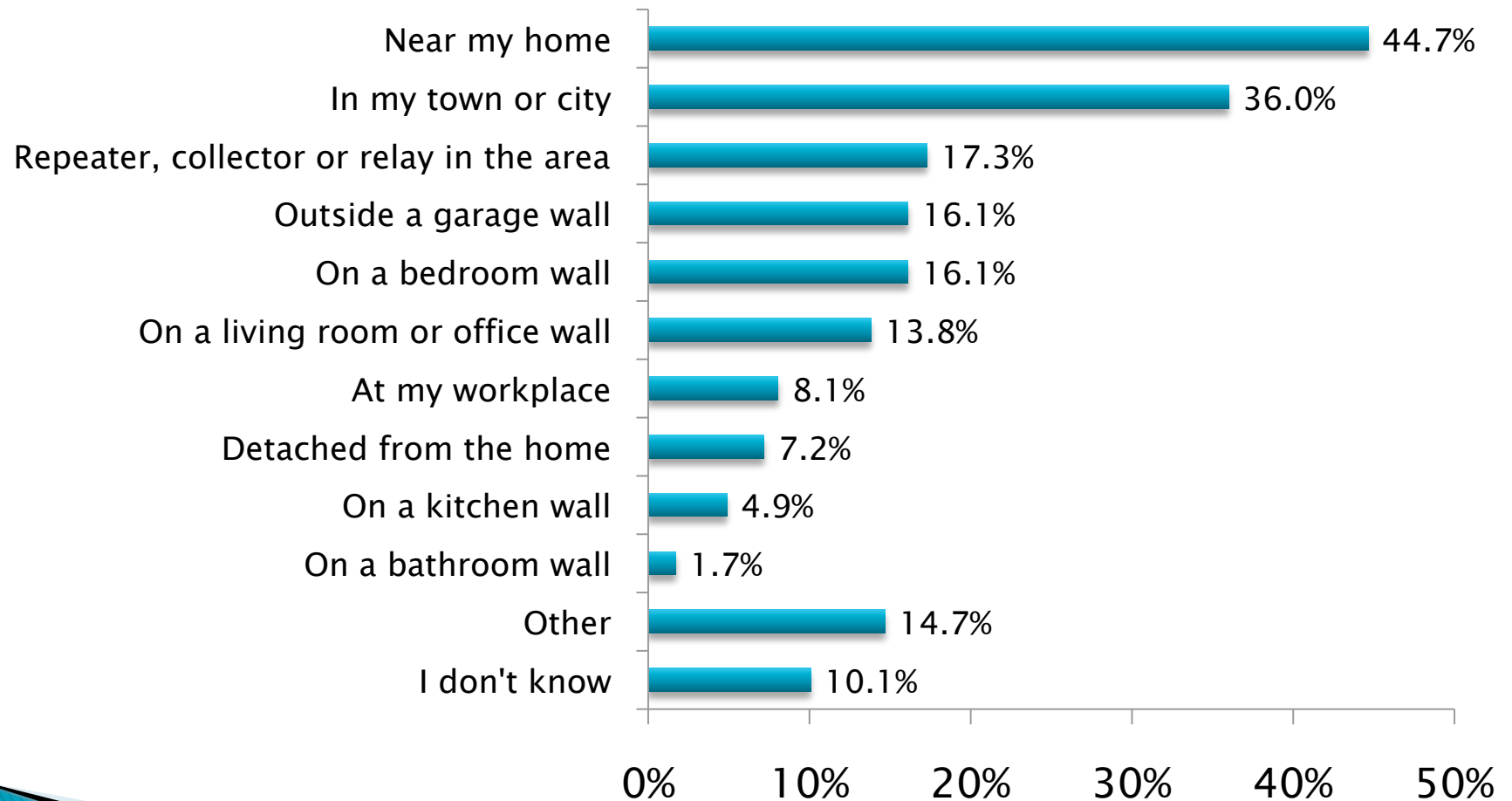
Do you have new wireless utility meters deployed in your neighborhood, apartment building, area, town or city? N=394





# Meter Placement

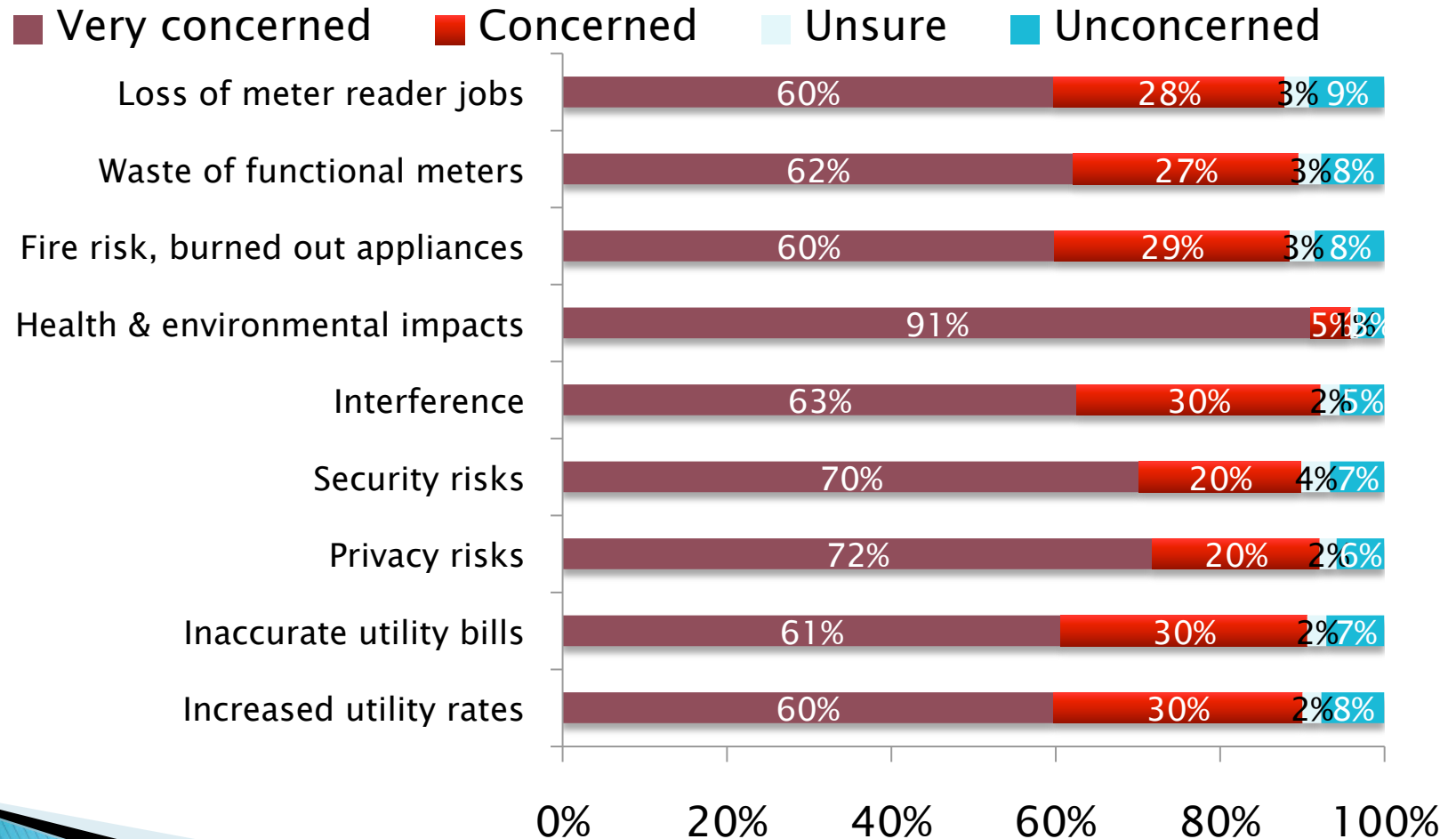
Please describe the placement of the wireless utility meters in relation to where you live.  
(Check all that apply. ) N=347



# Wireless Meter Effects

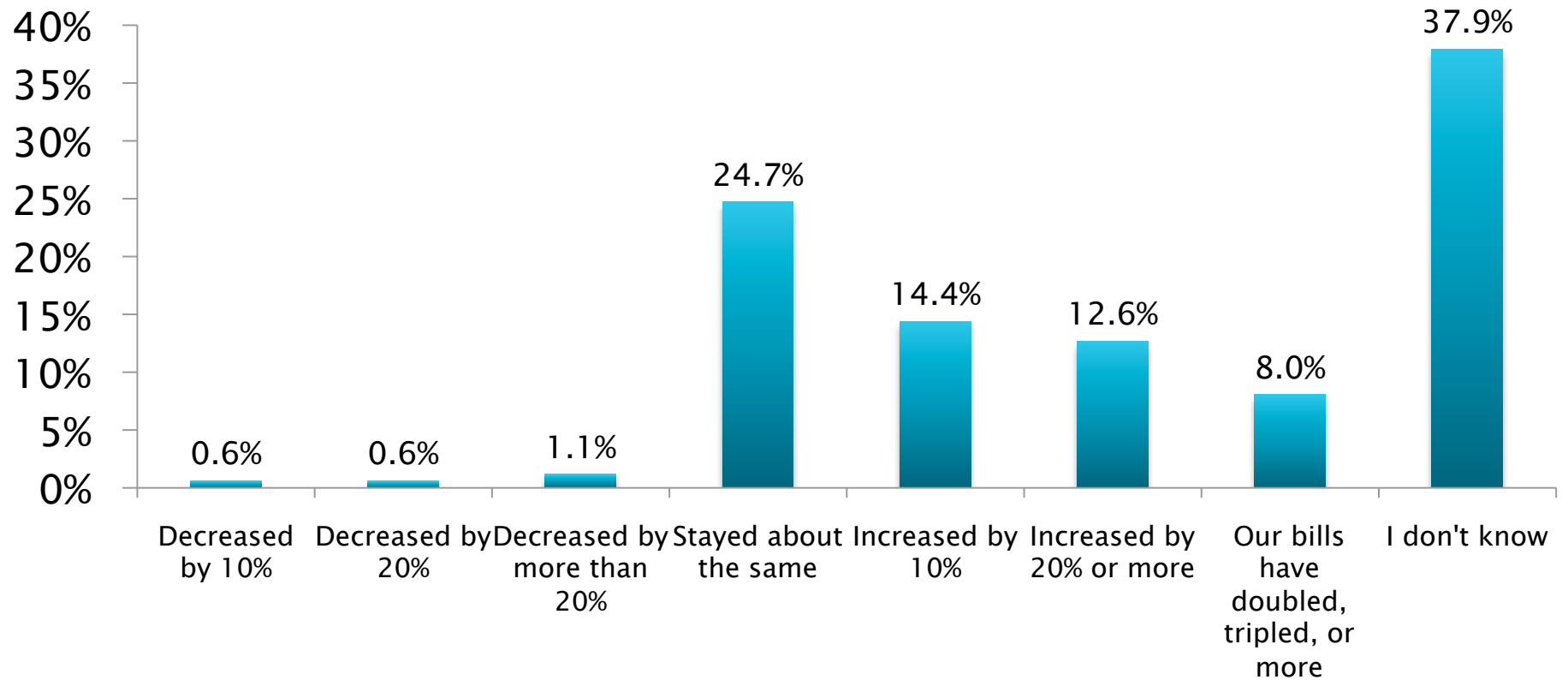
# Concern Over Wireless Utility Meters

How concerned are you about the reported problems with the new wireless Smart Grid utility meters, also known as Smart Meters (AMR, AMI, AED)? Check all that apply. N=425-432



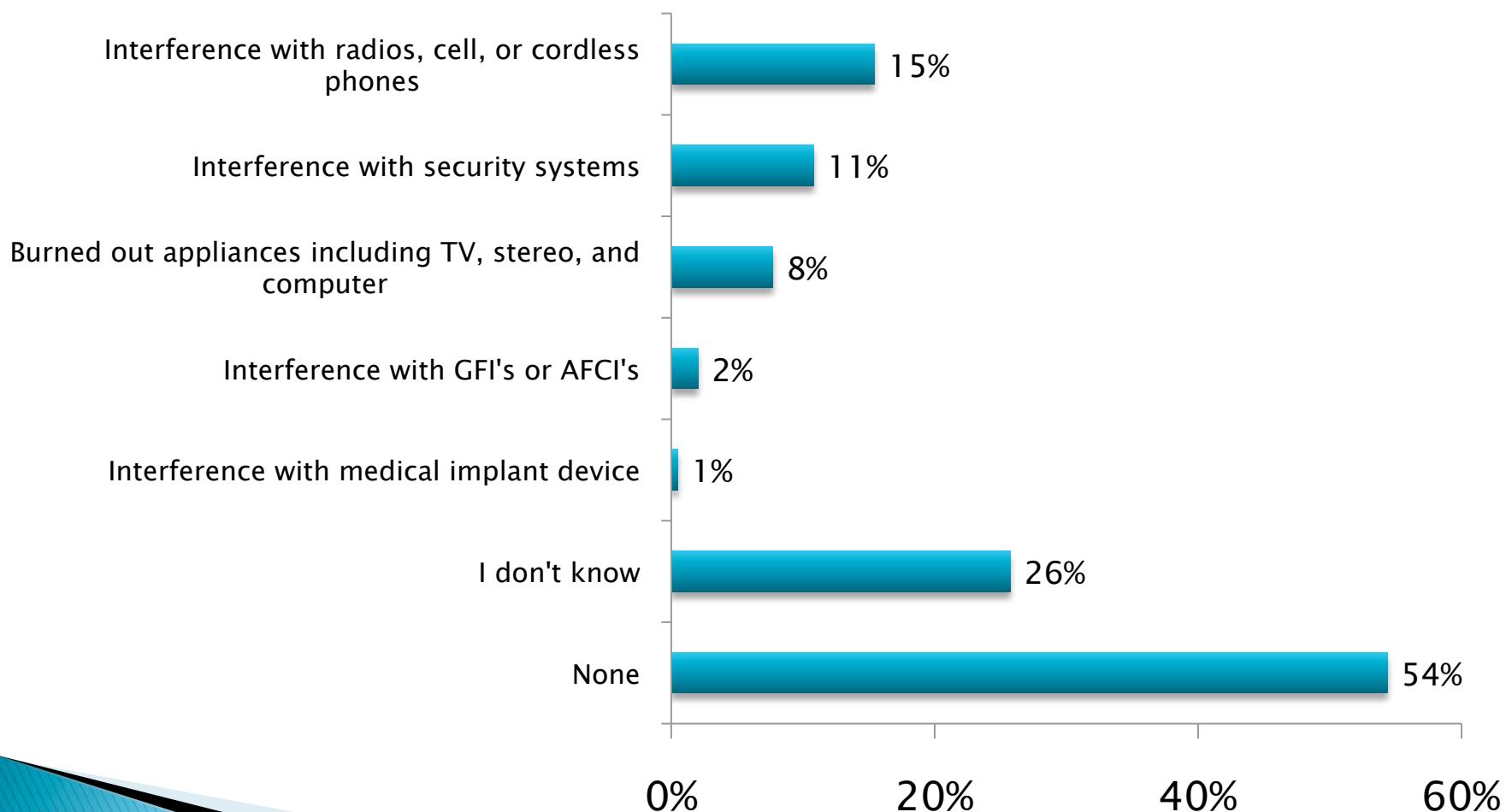
# Change in Utility Bill

If yes, have your bills increased, decreased or stayed about the same? N=174



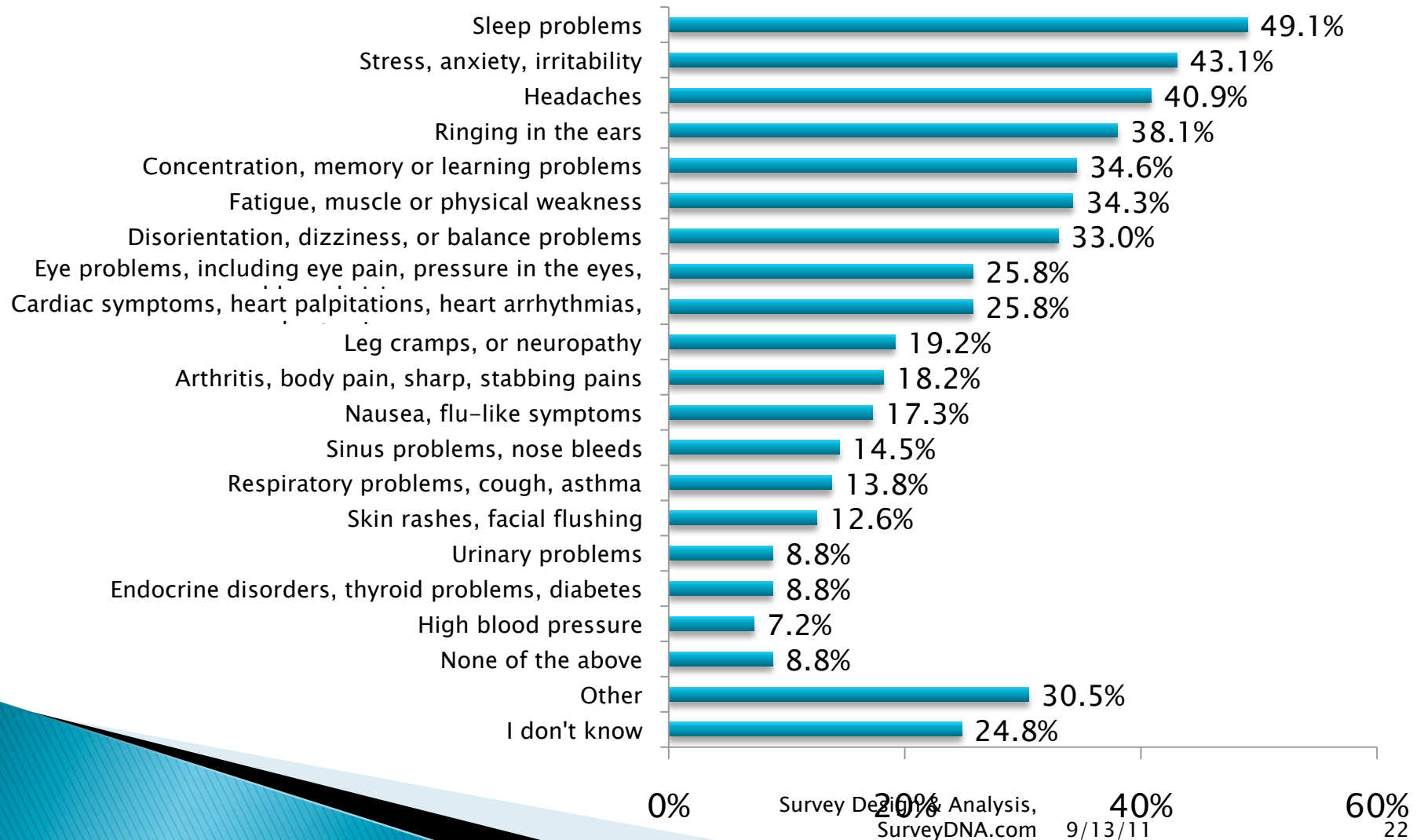
# Interference, Damage or Fire

If yes, have you experienced interference, damaged equipment, or a fire since the new meter(s) has been installed? (Check all that apply) N=194



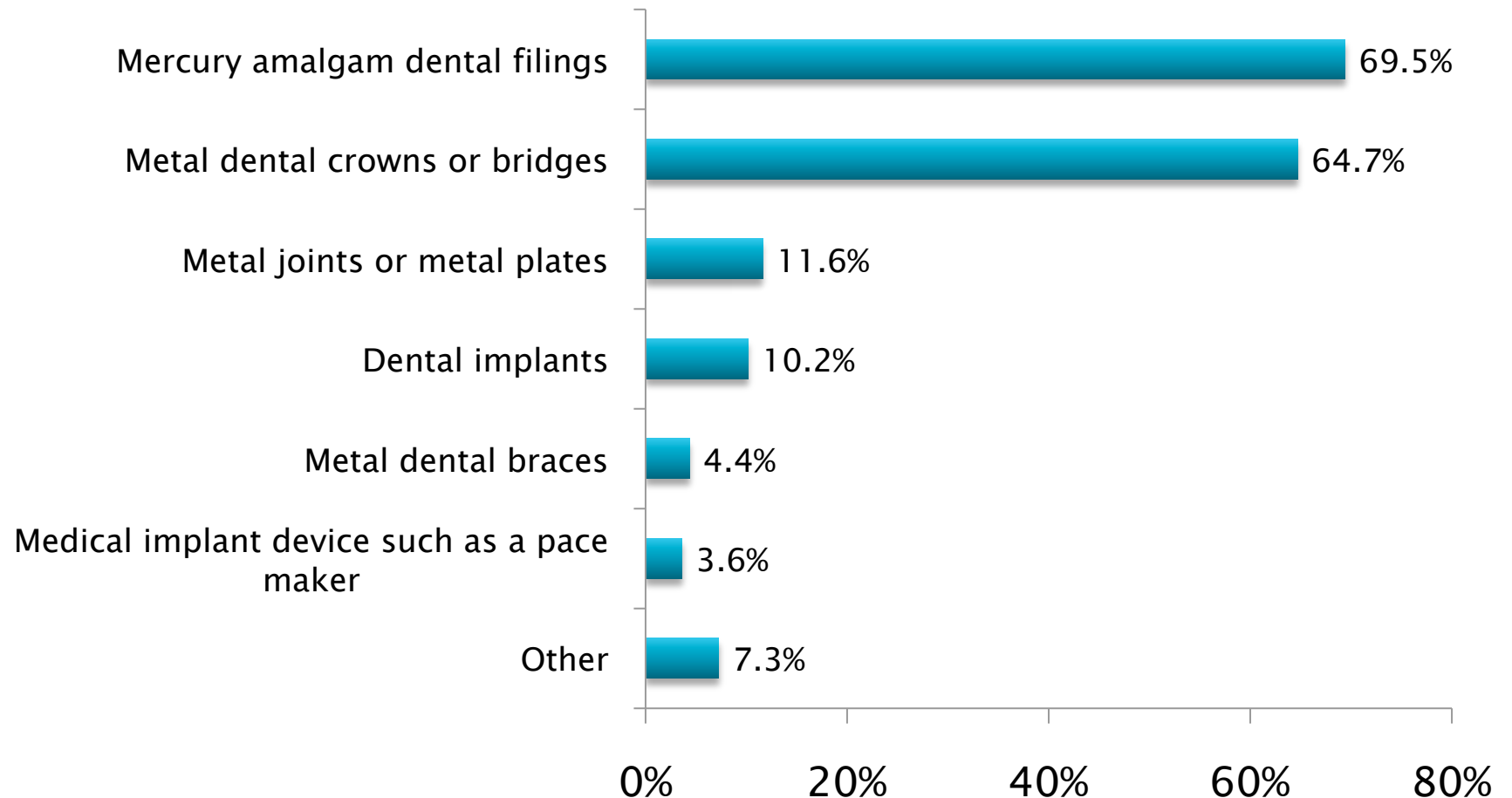
# New/Worsened Health Symptom

Have you, or anyone in your household, experienced new or worsened health symptoms since the new wireless utility meters have been installed on your home, in your neighborhood, apartment building, area, town or city? (Check all that apply) N=318



# Dental Work/ Metal Implants

Do you have one or more of the following? (Check all that apply.) N=275

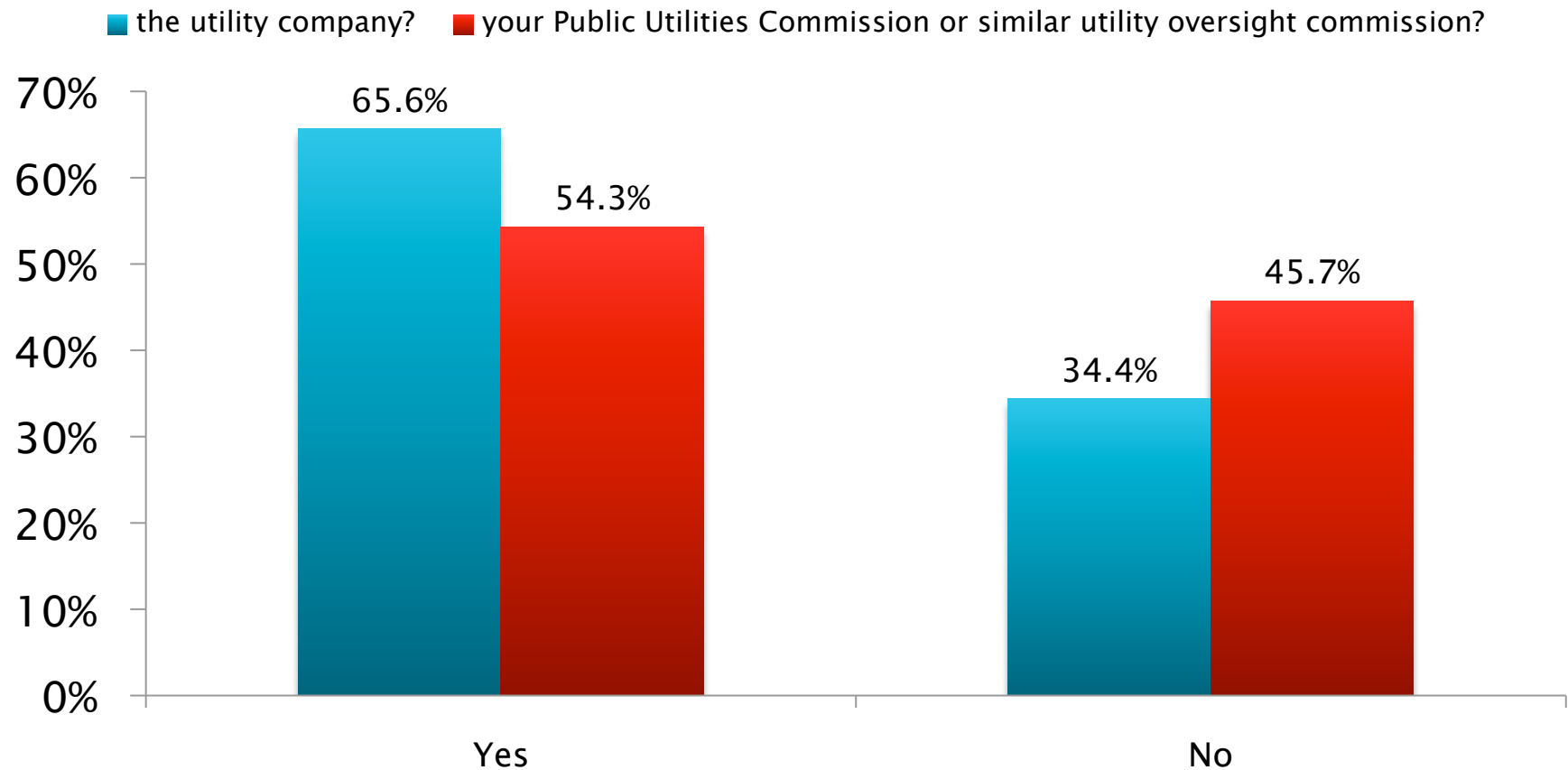


# Complaints to Provider and PUC



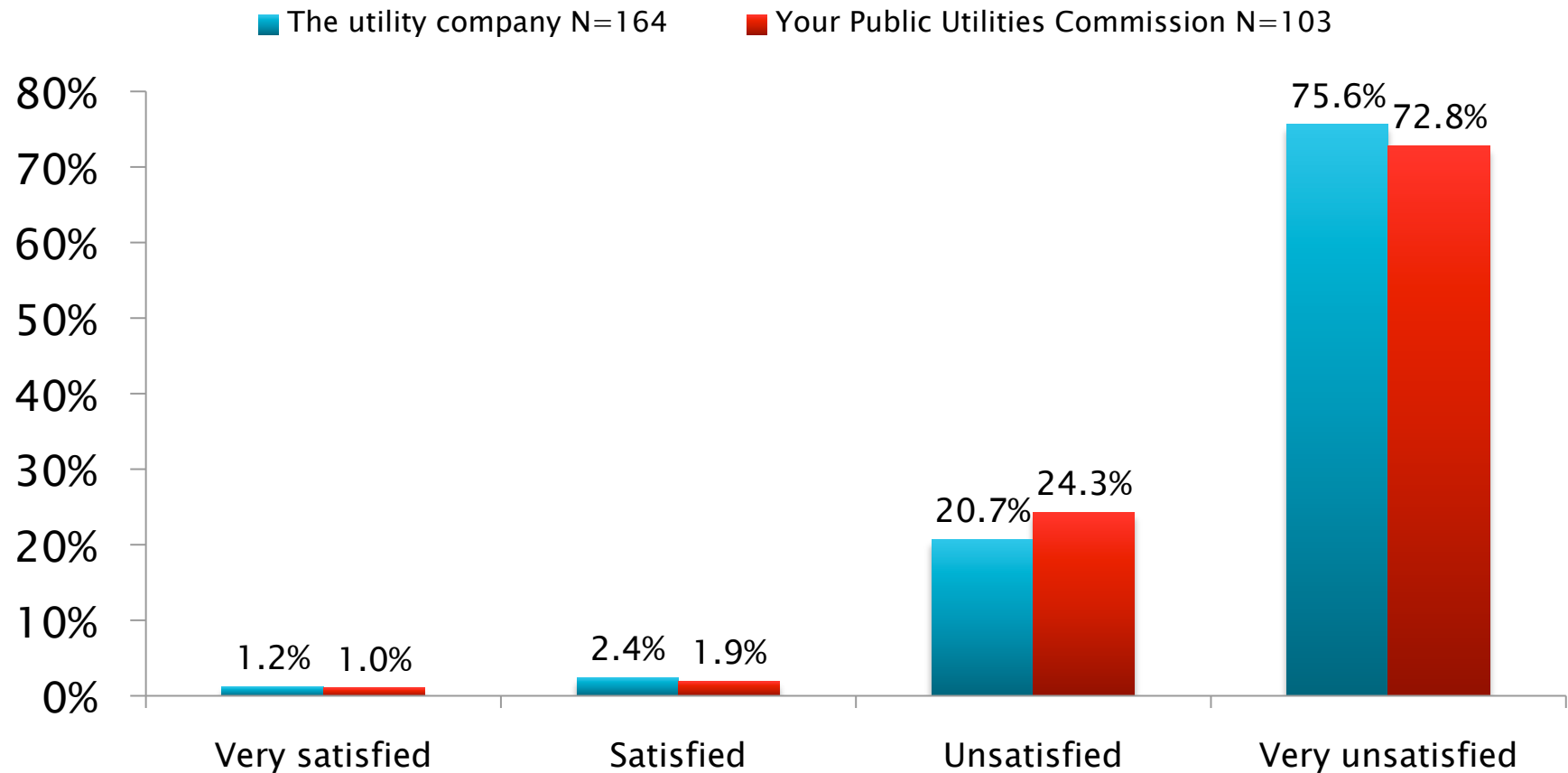
# Complained to Utility Company

If you have experienced problems with the new wireless utility meter(s), have you complained to... N=195



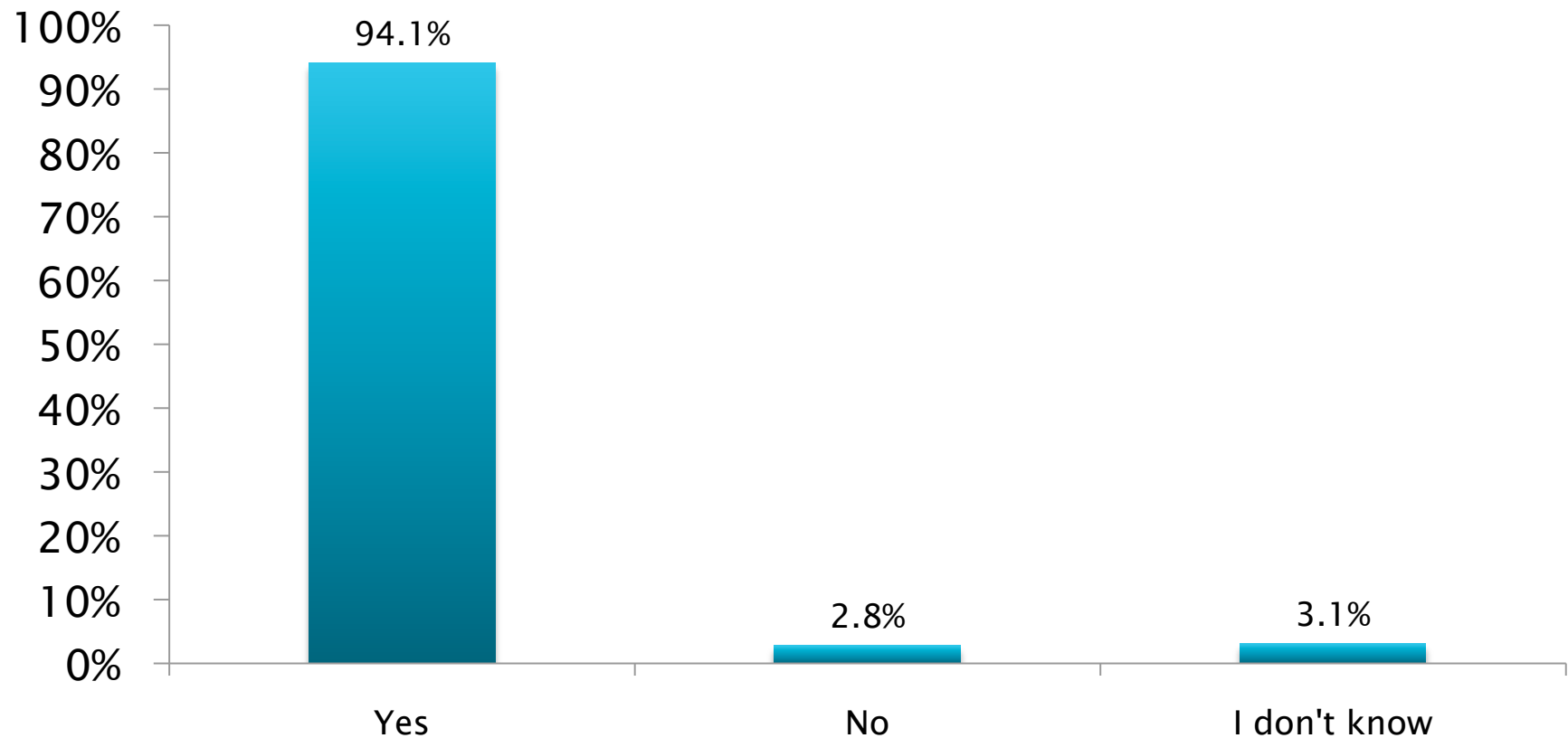
# Satisfaction with Complaint Handling

How satisfied are you about how they handled your complaint?



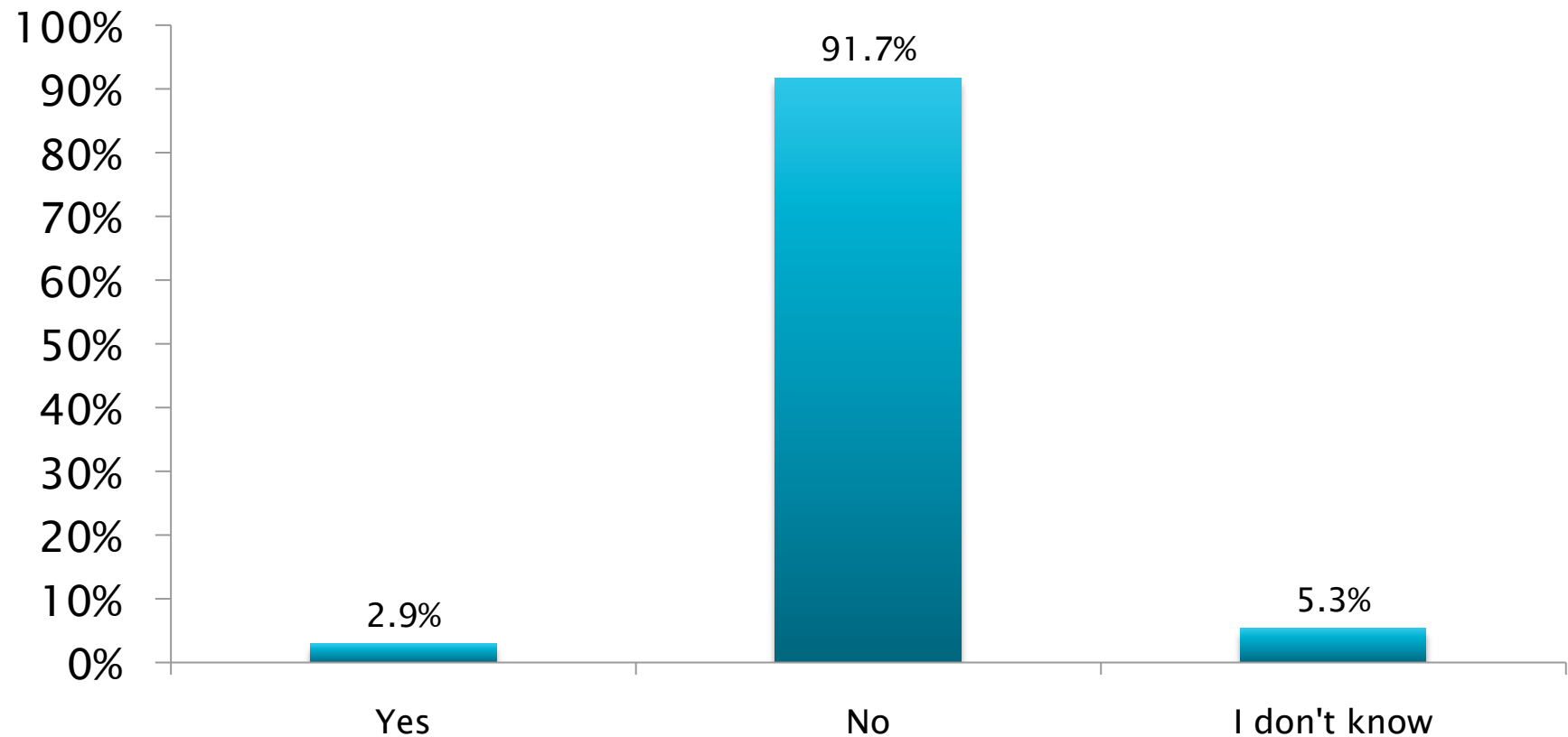
# Prefer to Retain Analog Meters

Would you prefer to retain or restore the analog (also known as electromechanical meter) utility meters and a meter reader? N=387



# Pay Extra for Analog Service

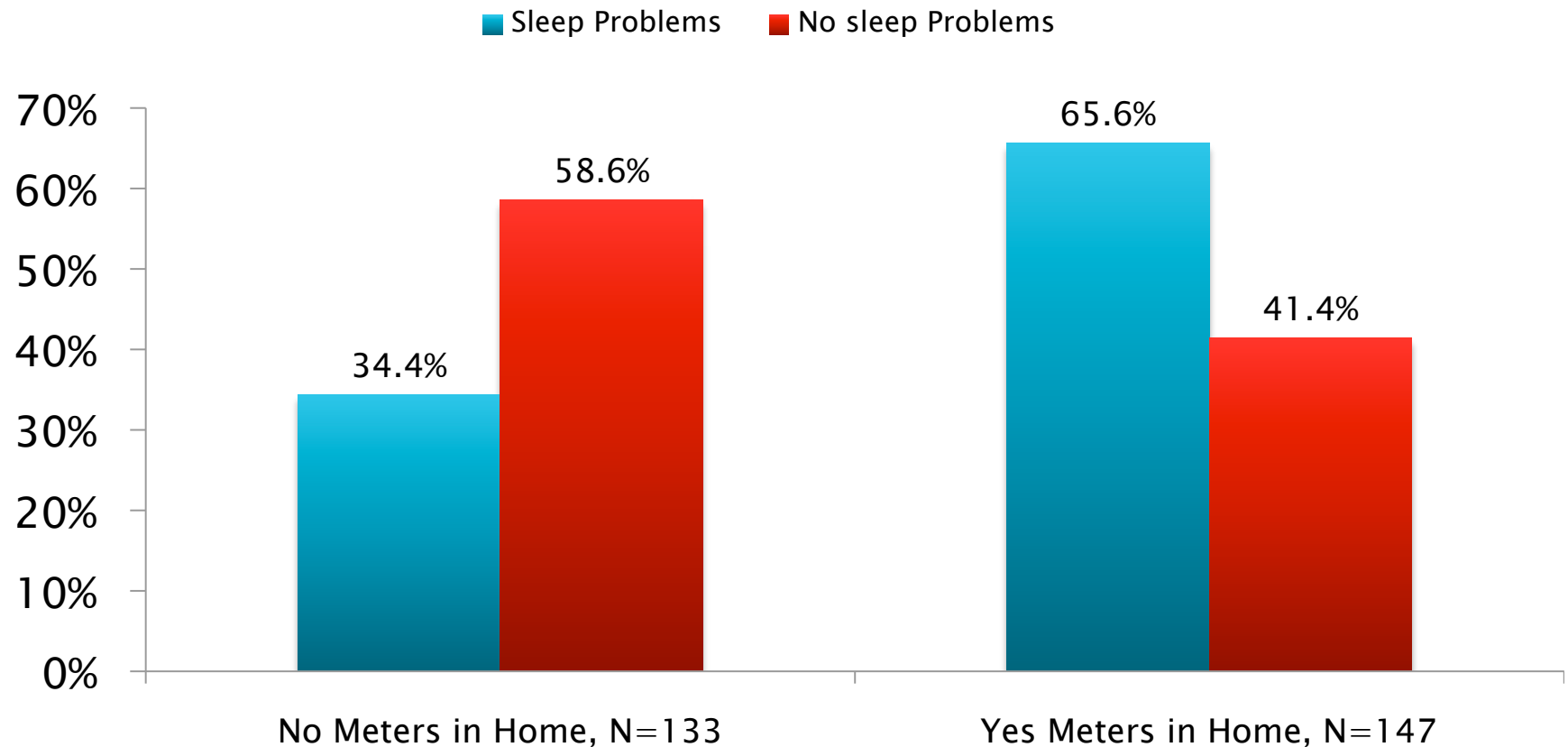
If yes, do you think you should pay more for the analog service? N=374



# Factors Associated with Health Symptoms

# Sleep Problems\* by Meters in the Home

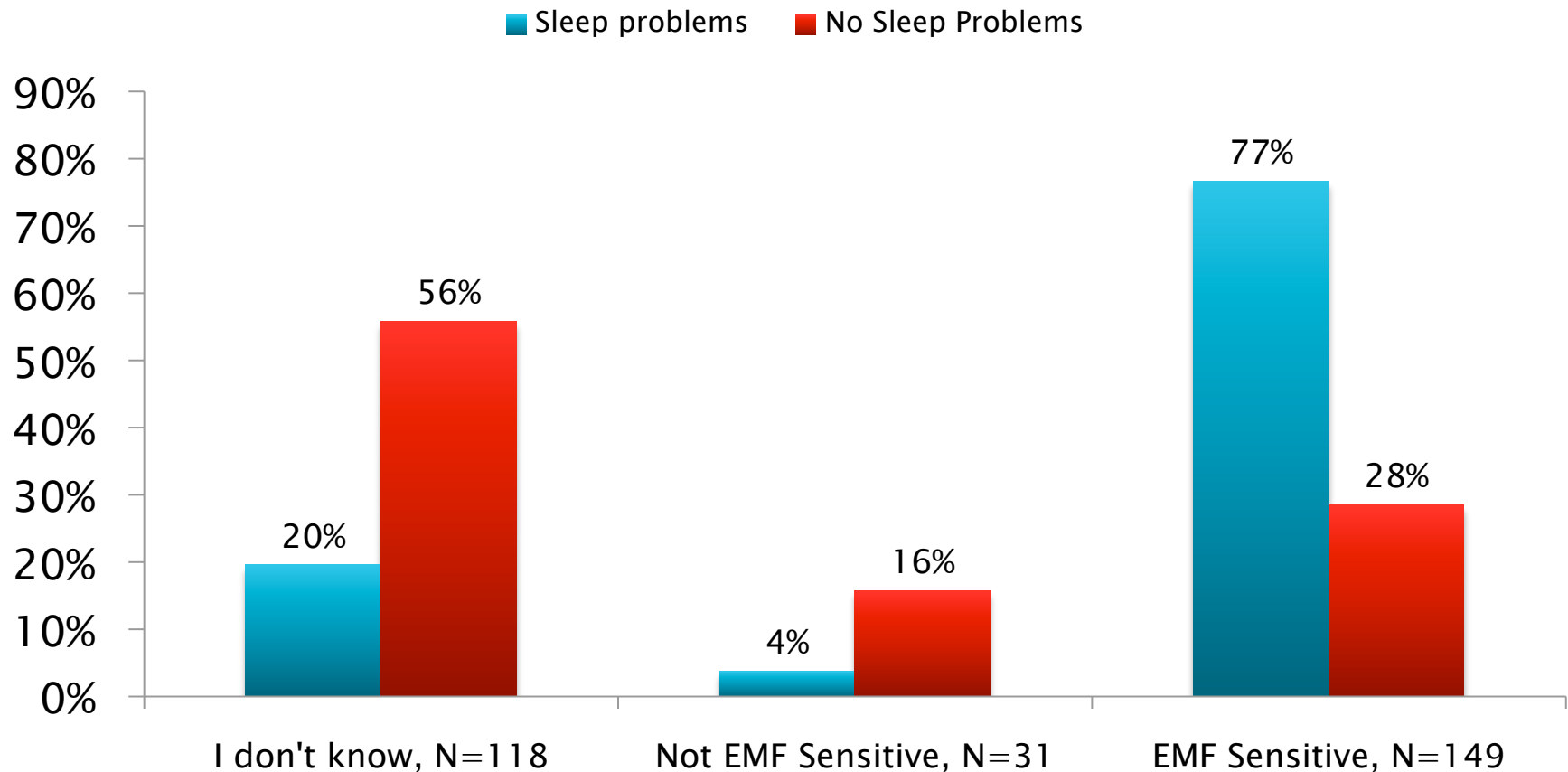
Have you, or anyone in your household, experienced new or worsened health symptoms since the new wireless utility meters have been installed on your home, in your neighborhood, apartment building, area, town or city? (Check all that apply.) N=298



*\* The relationship is the same for the top five Health Symptoms sited.*

# Sleep Problems\* by EMF Sensitivity

Have you, or anyone in your household, experienced new or worsened health symptoms since the new wireless utility meters have been installed on your home, in your neighborhood, apartment building, area, town or city? (Check all that apply.) N=298



# Verbatim Comments I

## Sampled from the 542 Comments Received

- ▶ *"We should not have to pay for NO CHANGE in electric service. We don't pay for not getting cable. We don't pay for not getting satellite. We don't pay for gas if we don't use gas appliances."*
- ▶ *"I firmly believe that it is ILLEGAL to charge someone for services they are not receiving. I should not have to pay for the "privilege" of retaining my analog utility meter and I should not have my rates increase monthly whether my usage does nor not. That is RIDICULOUS ..."*
- ▶ *"I am almost ready to deny gas and electric service rather than pay for an analog or accept a SmartMeter. Then they would have the freezing death of an old lady on their hands and my kids could sue them."*
- ▶ *"I am a Doctor of Chiropractic. Several patients have told me they become sick and weak in the presence of wireless devices. They get sicker the closer they are. Some are sensitive even blocks away. These are intelligent, educated, sincere people who ask if I know of anything that can help them mitigate their symptoms, given that such fields are increasingly common."*
- ▶ *"I see absolutely NO BENEFIT from this expensive, wasteful change-out. I see nothing but trouble ahead, especially once hackers get into the network. I believe that human meter readers are a community benefit and am distressed to see them removed at a time when we need jobs and the extra oversight they provide in our communities."*
- ▶ *"The electrical companies and investors should be forced to foot the bill on this one and not be allowed to pass the cost on to customers. They deserve to be sued and heavily fined and maybe some people belong in prison over this."*



# Verbatim Comments II

## Sampled from the 542 Comments Received

- ▶ *“The radio transmissions of the meters could very well be affecting the presence of pollinators in our yards. Bees, hummingbirds and butterflies are small and sensitive creatures that are becoming less prevalent and I am certain it is due to the air wave pollution we are inflicting upon them . . .”*
- ▶ *“We should not have smart meters and their mesh network in our community (in any community) due to non-ionizing wireless RF radiation from these devices being classified by the WHO as a Class 2B carcinogen, on par with DDT. ... Chronic long-term exposure to this type of radiation is stressful on our cells and associated with increased risk of cancer, according to peer-reviewed health studies. ... This should not be mandatory, especially when the Federal government does not mandate these on our homes. This is a gross violation of our civil liberties, and endangers the privacy, security, public safety, health and lives of ourselves and our loved ones, neighbors, friends and family.”*
- ▶ *“I am so worried about these Smartmeters, that I don't want to leave home because the installers will put them on whether you want them or not. ... I do know many people who are suffering terribly from them.”*
- ▶ *“... it effected the equipment in the emergency medical operating unit. The doctor did not know what was causing this, he had the old back up ways before tech in his head, but maybe others do not have this. He almost lost an animal due to this. So I am very frustrated over all this. ... Appliances burned up, blender caught fire, stereo malfunctioned, two shredders burned up, a water fountain no longer works, a popcorn popper caught on fire, ...”*

# Verbatim Comments III

## Responses on utility company complaints

- ▶ *"In the beginning I called all around, talked to many people about my concern. I was told I had no choice – the meters are going in and I have no say. No one addressed my concerns or called me back to address my concerns as I had left messages and asked. Anyone who I spoke with to address my concerns skated right past them and told me the same thing, I have no choice but to have a SmartMeter installed."*
- ▶ *"My interaction with PG&E has been entirely focused on keeping them from installing meters on my home. Each time I have called, I get only arguments that they are safe, no way to guarantee that we can opt out."*
- ▶ *"I have been thinking of contacting PG&E, but I dread it knowing that it will increase my already elevated stress levels. I'm feeling very frustrated and stuck. I've thought about taking a sledge hammer to the meter at some points."*
- ▶ *"SCE basically told us that there was nothing they could do to help us. My husband has emailed every executive at SCE and CPUC and nobody will reply back. I even got a letter from my Dr. about my EMF/RF sensitivities and SCE said that they have no contingency plan for people with EMF/RF sensitivities or health problems that are caused by their Smart Meters."*
- ▶ *"They do not care about the long-term health of their customers. They are a 100% monopoly, and the CPUC is their lapdog. This situation stinks."*

# Survey Questions

- ▶ How concerned are you about the reported problems with the new wireless Smart Grid utility meters, also known as Smart Meters (AMR, AMI, AED)? Check all that apply.
- ▶ Do you believe wireless devices can cause health problems?
- ▶ Are you, or is a member of your household, EMF sensitive? (EMF sensitivity is also called electrical sensitivity, or electrohypersensitivity)
- ▶ Have you had a new wireless utility meter installed on your home?
- ▶ If yes, how long ago was it installed on your home?
- ▶ If yes, please indicate the type of new meter installed on your home. Check all that apply.
- ▶ If yes, have your bills increased, decreased or stayed about the same ?
- ▶ If yes, have you experienced interference, damaged equipment, or a fire since the new meter(s) has been installed? Check all that apply.
- ▶ Do you have new wireless utility meters deployed in your neighborhood, apartment building, area, town or city?
- ▶ Please describe the placement of the wireless utility meters in relation to where you live. Check all that apply.
- ▶ Have you, or anyone in your household, experienced new or worsened health symptoms since the new wireless utility meters have been installed on your home, in your neighborhood, apartment building, area, town or city? Check all that apply.
- ▶ Do you have one or more of the following? Check all that apply.
- ▶ If you have experienced problems with the new wireless utility meter(s), have you complained to the utility company?
- ▶ If you complained to the utility company about the new wireless utility meter(s), how satisfied are you about how they handled your complaint?
- ▶ If you have experienced problems with the new wireless utility meter(s), have you complained to your Public Utilities Commission or similar utility oversight commission?
- ▶ If yes, how satisfied are you with how they handled your complaint?
- ▶ Would you prefer to retain or restore the analog (also known as electromechanical meter) utility meters and a meter reader?
- ▶ If yes, do you think you should pay more for the analog service?