# Pr Ogram S G G

lami Gas 巾 9 e Bamber', MS, James Flores Information and Response Program, Flores Col Department nvironment

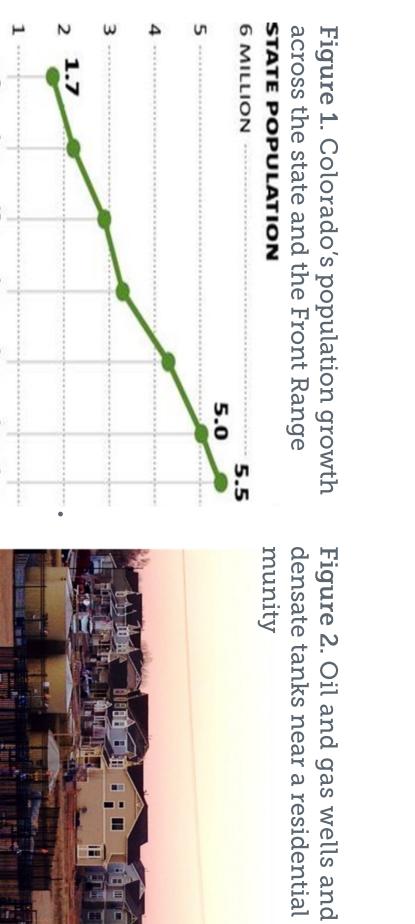
### Introduction

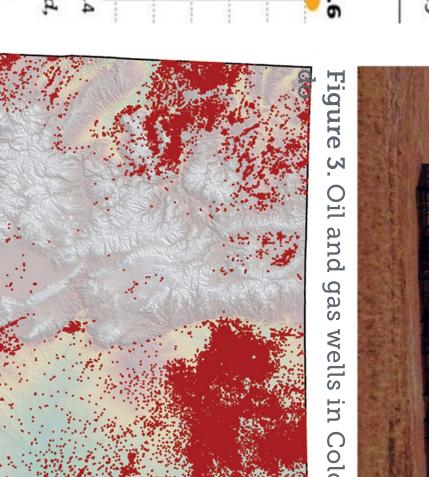
Colorado's rapidly growing population in parallel with increased oil and gas (O&G) operations in populated areas has created a situation in which many Coloradans now live and work in close proximity to O&G (Figures 1-3). In 2015, the Colorado Oil and Gas Task Force developed a set of recommendations to help foster responsible development of oil and gas in Colorado. As part of their assessment, the Task Force stated that they "heard from many citizens who expressed concern and uncertainty about potential human health risks associated with exposure to emissions from oil and gas activities. The Task Force believes citizens deserve and need accurate, credible, peer-reviewed scientific information to help them evaluate risk". In response to these concerns, the Task Force made several recommendations to be addressed by the Colorado Department of Public Health and Environment (CDPHE). CDPHE established the Oil and Gas Health Information and Response Program (OGHIR) which implemented three main goals that align with the Task Force's recommendations:

#### and deliver 9 rapid oncerns response to citizen health

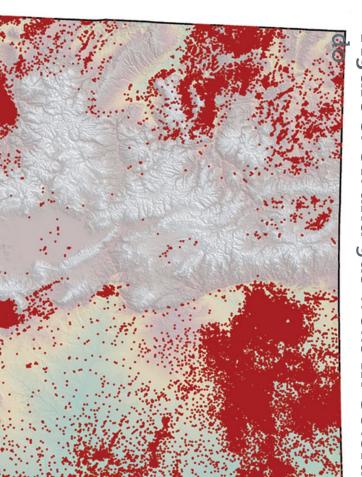
#### 2. T ovide obje Ctiv health informatio gas operations elated to 011 and

Establish and maintain credibility with stakeholders





4 MILLION



Multidepartment Stakeholder Collaboration

\*Note: Front Range counties include We Larimer, Boulder, Broomfield, Jefferson, Adams, Arapahoe, Denver and Douglas

Within the CDPHE's Disease Control and Environmental Epidemiology Division, the Oil and Gas Health Information and Response program works closely with other divisions within CDPHE and the Oil and Gas Conservation Commission housed within the Department of Natural Resources. Outreach and stakeholder relationship building includes collaborative efforts with industry, local governments, federal agencies and other oil and gas producing states.







# OGHIR tiered citizen response plan Track and Respond to Citiz

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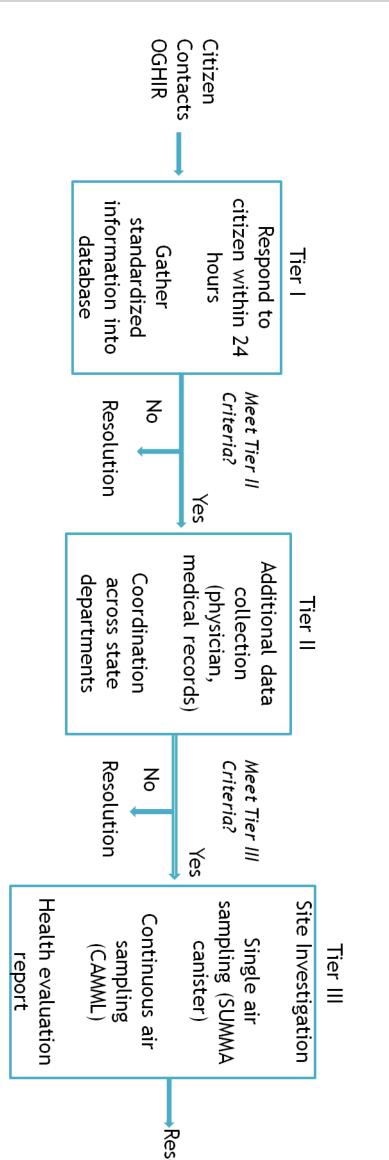


Figure 5. Over 50% of contacts (n=210) were from counties in the Colorado Northern Front Range

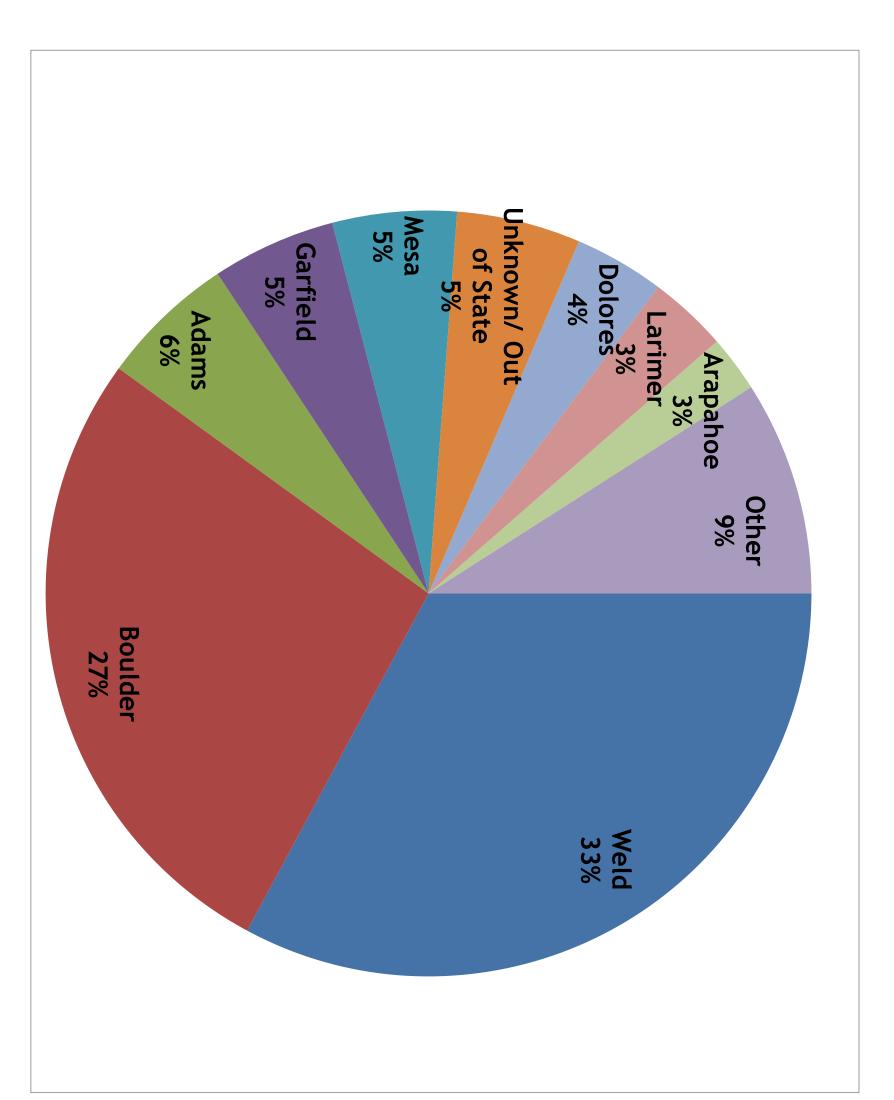
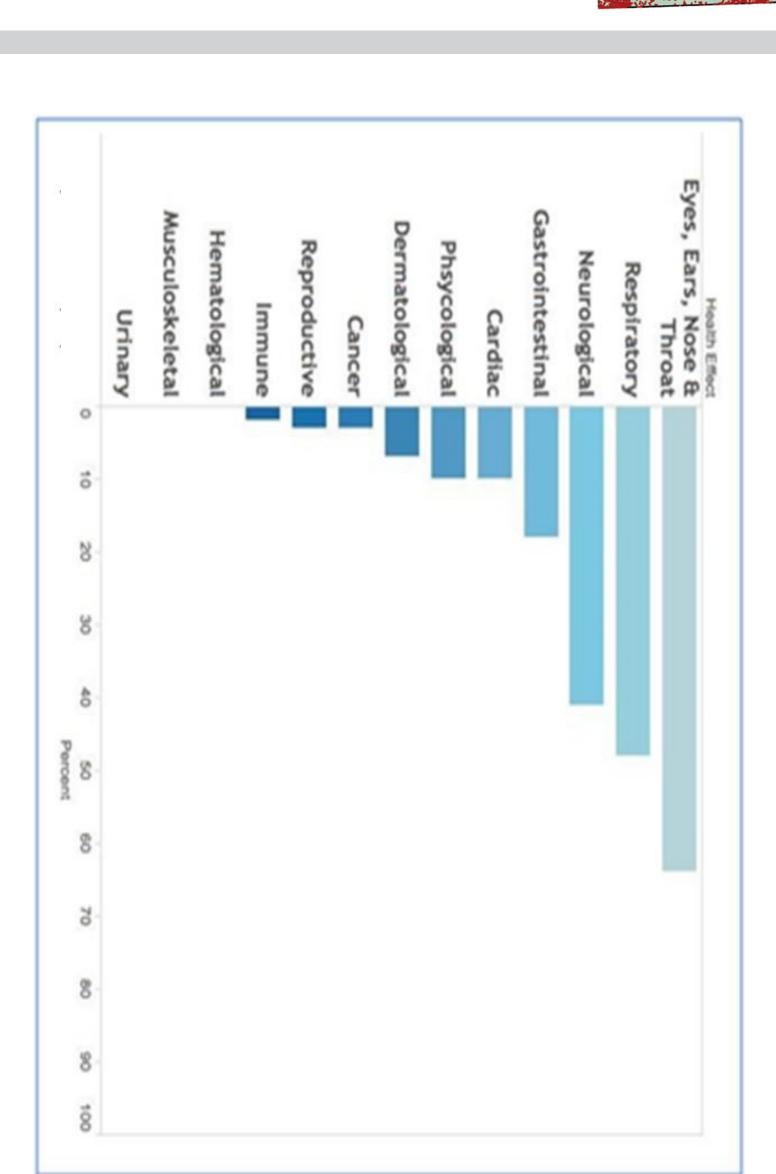


Figure 6. 70% of contacts (n=210) have reported symptoms possibly related to oil and gas operations



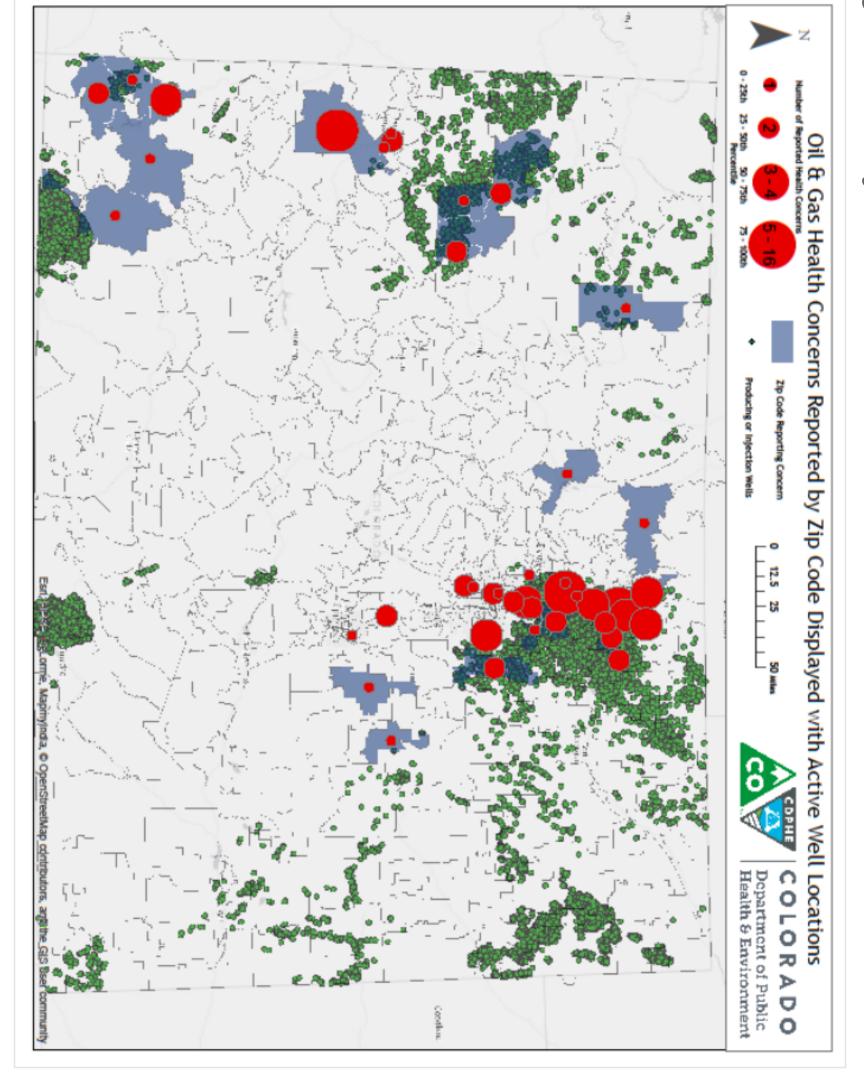
#### Figure 7. onboard gas DPHE's OPHE's Colorado Air M chromatograph/mass obile Monitoring spectrometer Unit

Health

oncerns



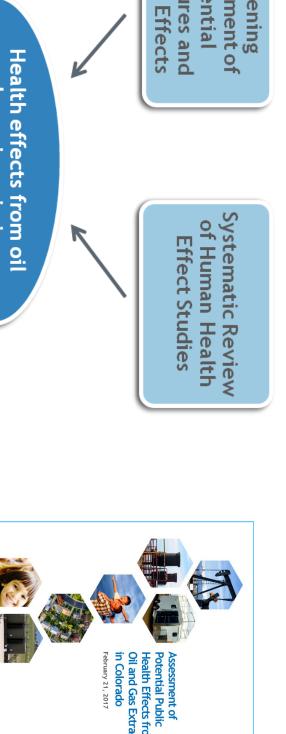
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# **Health Information**

- 1. A clearinghouse of information is available vides resources for in-depth information on O&G such as water quality, regulations, ope S. able on our website that pro-on many aspects related to operations and air quality.
- 2. Communication materials/ factsheets nate information to the public. have been created dissemi
- 3. Our report, Assessment of Potential Public Health Effects from Oil and Gas Operations in Colorado, has concluded: "At this time, resufrom exposure and health effect studies do not indicate the need for immediate public health action, but rather indicate the need for metailed exposure monitoring and systematic analyses of health effects of residents living near oil and gas operations."
- 4. A ca the emicomprehensive Hurthird-party contractonissions data from states. Human He ractor. It worm studies Health Risk Assessment t will use the latest and es and help to provide a nt will be conducted by nd most accurate air answers to important

### Figure 9. Integration of for health effects in peo information to near oil and gas evaluate the potential operations in Colorado



## Success

As part of a previous investigation, we distributed air sampling equipment to several residents of a Colorado community with instructions to collect an air sample during a time of a perceived health or odor event. We then conducted a preliminary community health screening assessment (Figure 11). Although data were limited, some general comments could be made:

- The air above air r sample detected 80 of 130 substances background sample concentrations slightly
- Based on limited air sampling data available, there is a low potential for health effects due to this short term posure

Operators forts and c and s successfully agreed to additional mitigation citizen concerns have subsided.

**Figure** 10. Example of a Tier III response success story

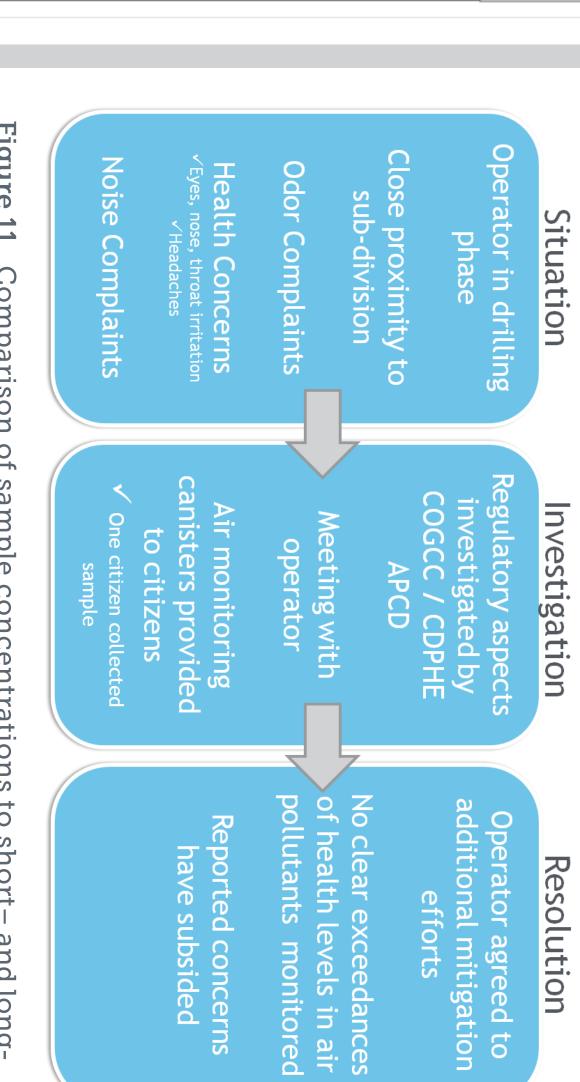
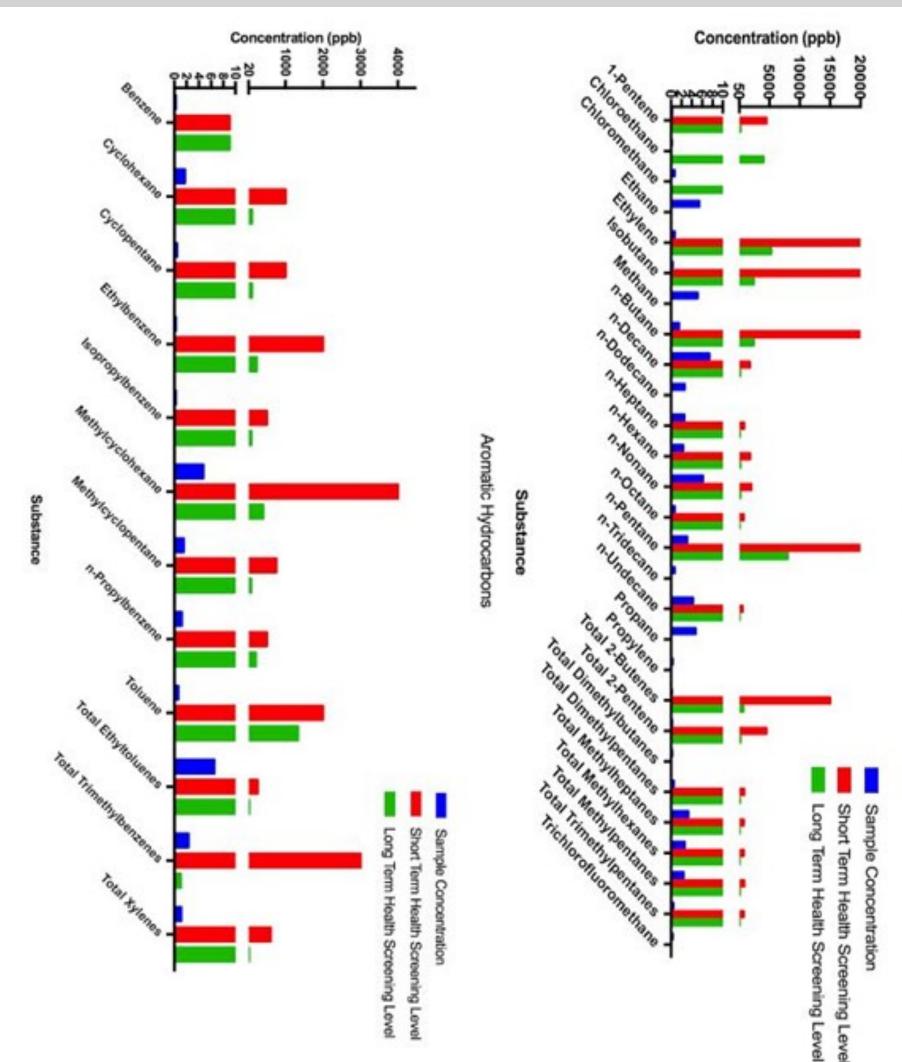


Figure 11. Comparison of sample concentrations to short—term health reference values and long-



#### CDPHE Official Report

The official report from the Oil and Gas Health Information and FY2015-2016 Status Report to Colorado State Legislature Joint can be found at: w.colorado.gov/oghealth Response Program: Budget Committee



