

PHPM 631

Health Information Management Systems

Lab 4: Data to Decision

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Population Informatics Lab (<https://pinformatics.org/>)

Course URL: <http://pinformatics.org/phpm631>

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Background for Lab 4: Data to Decision

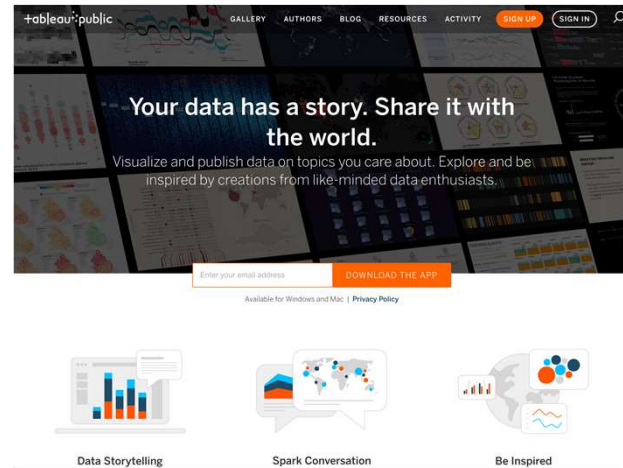
- Reminder: Submit lab by end of Sunday, 2/16
- Objectives
 - Discuss how to access Dashboards created by different groups.
 - Interact with graphs to acquire specific information regarding projects or group.
 - Search WWW to get further information to understand what the dashboard data means to the real world.
 - Discuss the use of data and information to manage population health.
- Previous labs created Dashboards
 - This lab shows you how to use them.

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Tableau Public

- Shows data uploaded by groups.
- Each group shows graphical representations of their data.
- How does each group choose to represent their data?

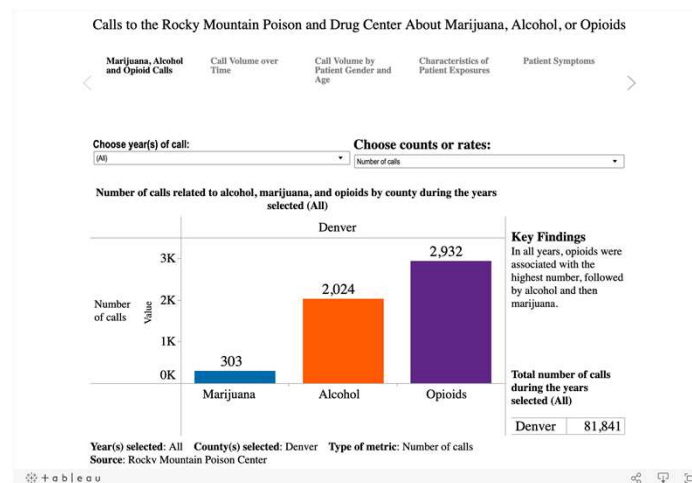


3

3

Interacting with Data

- How can you acquire meaning from data?
- Graphical displays.
- Interact with Tableau dashboards.
- Example public dashboard.
- https://public.tableau.com/profile/trevor.udden#!/vizhome/DenverDashboard_alt/Dashboard

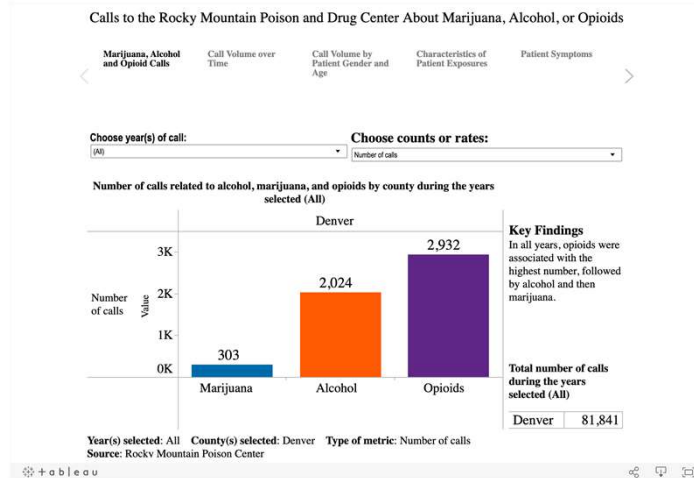


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4

Initial Questions/Approach

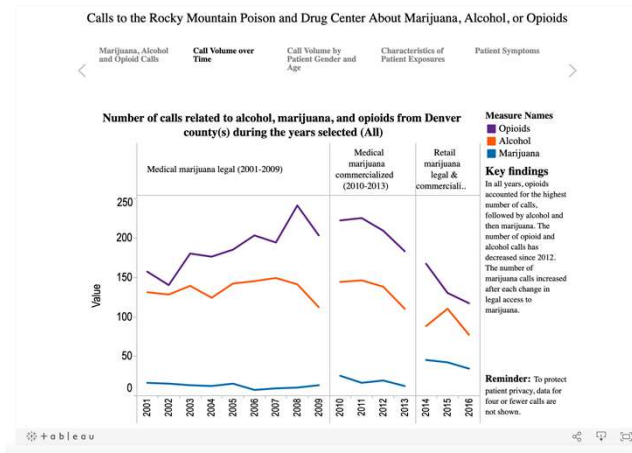
- What is this data displaying?
- What is the project/policies?
 - When have questions, Google is your friend!
- What are the years?
- Which drugs are measured?
 - Marijuana
 - Alcohol
 - Opioids



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Example Exploration

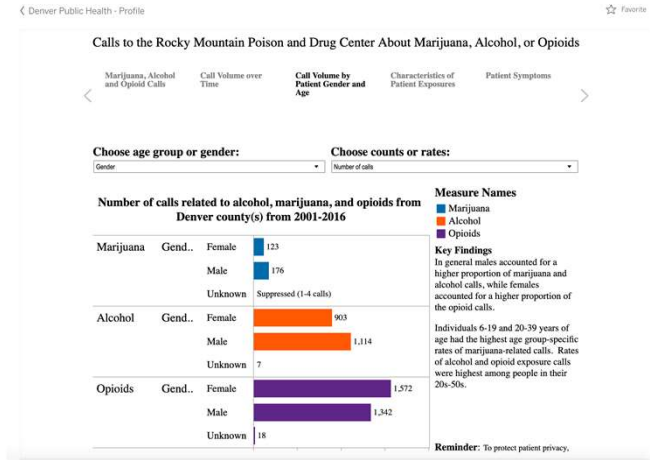
- What is the effect of year on calls based on legalization of marijuana?
 - Legal calls rise then fall.
 - Medical strictly fall.
 - Retail fall.
- Is the effect different by drug?
 - Yes, slightly.



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Example Exploration

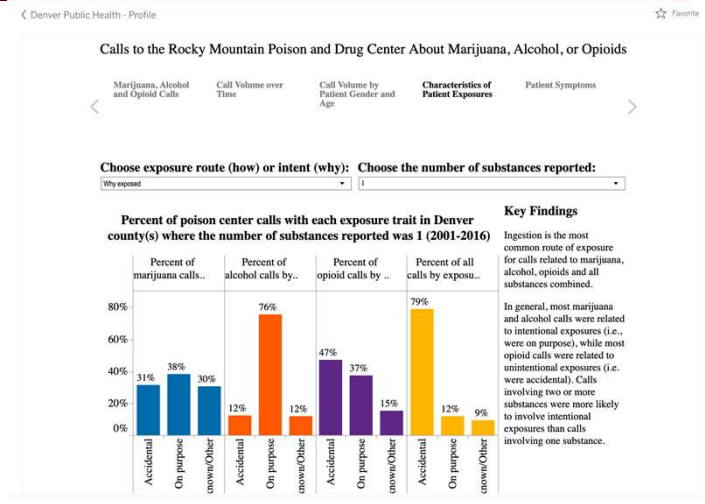
- What is the effect of gender?
 - Males are more likely to be a marijuana or alcohol call.
 - Women are more likely to be a opioids call.
- Overall, opioids have the highest proportion of calls.



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Example Exploration

- Do reasons for calls differ by type of drug?
 - Yes opioids tend to be accidental.
 - Alcohol, tends to be on purpose.
 - Marijuana evenly matched.
 - Overall, mostly accidental.



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Example Exploration

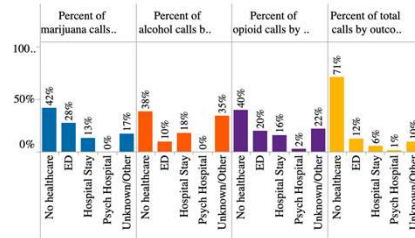


Calls to the Rocky Mountain Poison and Drug Center About Marijuana, Alcohol, or Opioids

- What type of healthcare do people receive after call?
 - Mostly no healthcare.
 - A few emergency departments or hospital stays.

Marijuana, Alcohol and Opioid Calls | Call Volume over Time | Call Volume by Patient Gender and Age | Characteristics of Patient Exposures | Patient Symptoms

Percent of poison center calls with each outcome type in Denver county(s) where the number of substances reported was 1 (2001-2016)



Key Findings

Poisoned individuals who go directly to the hospital without calling the poison center are not included in these data.

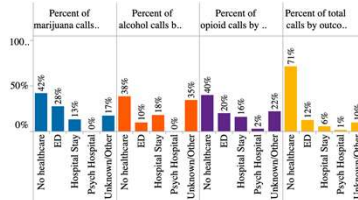
Among individuals who were reached for follow up, many calls resulted in no medical care. Calls involving one substance were generally associated with lower levels of care and lower severity than calls involving two or more substances.

County(s) selected: Denver Outcome selected: Level of care Number of substances reported: 1 Source: Rocky Mountain Poison Center (2001-2016)

Example Exploration



Percent of poison center calls with each outcome type in Denver county(s) where the number of substances reported was 1 (2001-2016)



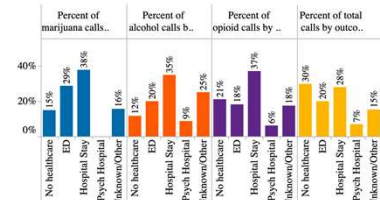
Key Findings

Poisoned individuals who go directly to the hospital without calling the poison center are not included in these data.

Among individuals who were reached for follow up, many calls resulted in no medical care. Calls involving one substance were generally associated with lower levels of care and lower severity than calls involving two or more substances.

County(s) selected: Denver Outcome selected: Level of care Number of substances reported: 1 Source: Rocky Mountain Poison Center (2001-2016)

Percent of poison center calls with each outcome type in Denver county(s) where the number of substances reported was 2+ (2001-2016)



Key Findings

Poisoned individuals who go directly to the hospital without calling the poison center are not included in these data.

Among individuals who were reached for follow up, many calls resulted in no medical care. Calls involving one substance were generally associated with lower levels of care and lower severity than calls involving two or more substances.

County(s) selected: Denver Outcome selected: Level of care Number of substances reported: 2+ Source: Rocky Mountain Poison Center (2001-2016)

- One
- Two
- Is there a difference by number of substances involved?
 - More likely to involve hospital stay with more substances.

Conclusions



- Opioids was reason for most poison center calls.
- Calls fell over time.
- More substances involved suggested increased medical care involved.
- Overdose reason differed by type of drug.
- Types drugs associated with calls differed by gender.

Texas DSRIP



- Texas Project Dashboard.
- Dashboard used for lab.
- Several tabs at top to explore large project.

