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The Public Science Collaborative (PSC) is assisting the Iowa Department of Public Health Substance Abuse Bureau and the Linkage to Care Advisory Board to develop single source, in the form of a dashboard, containing public health vital statistics including information on youth and data currently in the prescription monitoring program.

Objective:

Promote health equity, move from data to action, improve preparedness for substance use outbreaks, monitor state-wide substance use and support data-informed decision making.

Users:

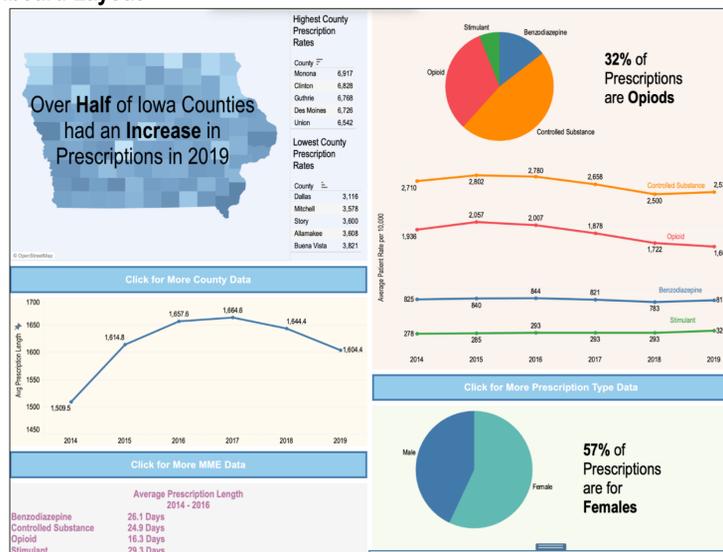
- Proposal Writer: Research, creating tables and monitoring trends to write grants, reports, policy briefs and develop needs assessments.
- Community Coalition: Strategic planning, circulate information, local planning and recovery/peer support.
- Decision Maker: Decisions that impact Iowa services, programs and citizens.
- Health Administrator: Identify gaps in services, monitor prescribing practices and connect to other community resources, services and providers.

Datasets:

- Vital Statistics 2010-2020 (Simulated)
- Iowa Youth Survey 2018 (IYS - Simulated)
- Prescription Monitoring Program 2014-2019 (PMP)

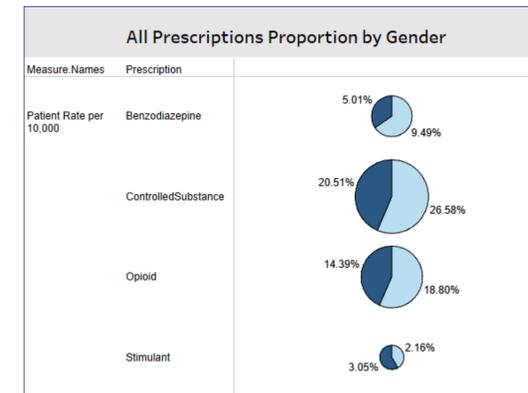
Focus on designing a dashboard for the PMP dataset.

Dashboard Layout



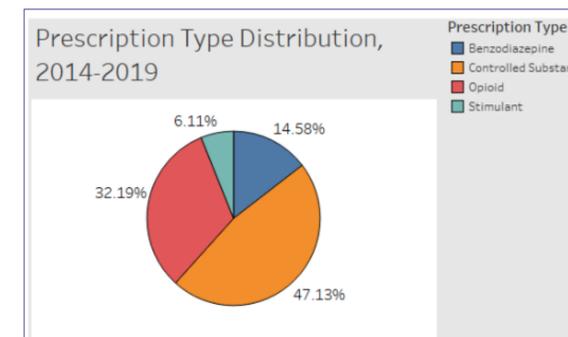
Gender

- The majority of prescriptions are controlled substances and opioids.
- The prescriptions with an increasing trend are stimulants and benzodiazepines.
- Stimulants are the only prescription where there is a larger proportion of males than women



Patient Prescription, 2014 - 2019

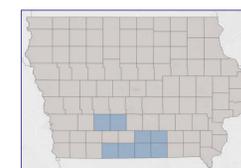
- The year 2015 had the most substances prescribed
- The year 2018 had the least substances prescribed
- Controlled substances were prescribed the most
- Stimulants were prescribed the least out of all substances
- Substance prescriptions were declining until 2019 as we start to see a potential up-trend in prescriptions
- Interestingly, all prescribed substances have similar upward and downward trends over the years except for stimulants as they have been steadily rising over the years.



Prescription Length

- Prescription trends, between 2014 - 2019, show that opioid prescription lengths are consistently shorter, by roughly 10 days, compared to benzodiazepine, stimulants and other controlled substances.
- The range for each substance is consistent during the six-year timeframe.

County	2014	2015	2016	2017	2018	2019
Adair						X
Appanoose	X	X	X	X	X	X
Decatur	X	X	X			X
Lucas					X	
Madison		X	X	X	X	X
Monroe	X	X	X	X	X	X
Ringgold	X	X	X	X	X	X
Wayne	X		X	X		

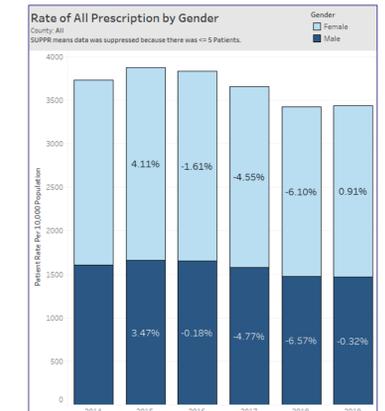
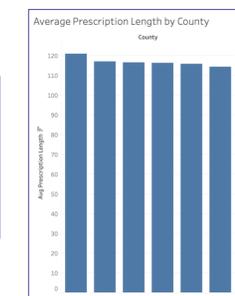


Longest Opioid Prescription Length Top 5

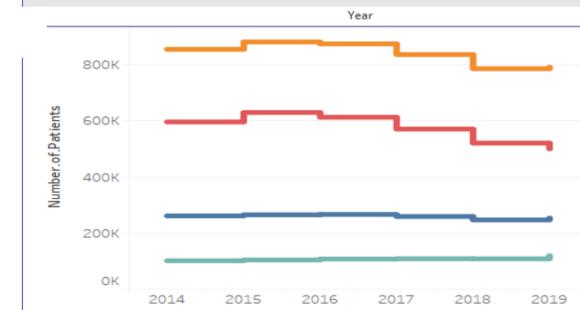
- Counties with the longest opioid prescription length between 2014 - 2019 varied among Decatur, Ringgold, Wayne, Monroe, Appanoose, Madison, Lucas, and Adair.
- Ringgold and Appanoose have been in the Top 5 all 6 years.
- Monroe and Madison have been in the Top 5 for 5 of the 6 years.
- 4 of the counties, including Ringgold and Appanoose, are located along the Iowa/Missouri border.

Average Days by Morphine Equivalent (MME)

- The counties with the highest MME concentration and prescription length are Appanoose, Sac, Mahaska, Decatur, Montgomery and Webster.
- The above six remain consistently the top 6 throughout 2014-2019.
- Counties with the least MME concentration and prescription length are Jones, Story, Clay, Woodbury and Louisa. These counties also remain mostly consistent throughout 2014-2019, with only Osceola entering the top 5 in 2018.
- This analysis leads us to believe that MME concentration and its relationship with prescription length has remained roughly the same.



Yearly patients using prescriptions, 2014-2019



Shortest Opioid Prescription Length Top 5

- Counties with the shortest opioid prescription length between 2014 - 2019 varied among Buena Vista, Henry, Palo Alto, Clay, Jones, Sioux, Johnson, Linn, O'Brien and Winneshiek.
- Clay and Sioux have been in the Top 5 for all 6 years.
- Henry and Palo Alto counties were only in the Top 5 once, in 2014.
- Counties with the shortest opioid prescription length between 2014 - 2019 are clustered into two groups located in the northwest and eastern part of the state. Palo Alto, Clay, Sioux, Buena Vista and O'Brien make-up the northwest cluster and Linn, Jones, Johnson and Henry make up the eastern cluster.

County	2014	2015	2016	2017	2018	2019
Buena Vista		X	X			
Clay	X	X	X	X	X	X
Henry	X					
Johnson			X	X	X	
Jones	X	X				
Linn		X	X		X	X
O'Brien				X	X	X
Palo Alto	X					
Sioux	X	X	X	X	X	X
Winneshiek				X	X	X

