Ohio State University College of Public Health: Case Competition

Group 2: Sara Godina, Angela Hetrick, Christine McComb
Opioid Epidemic: U.S. - how did we get here?

The amount of prescription opioids sold to pharmacies, hospitals, and doctors’ offices nearly quadrupled from 1999 to 2010.

No overall change in the amount of pain that Americans reported.
Opioid Epidemic: U.S. - trends

**Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2015**

- Any Opioid
- Heroin
- Natural & Semi-Synthetic Opioids
- Other Synthetic Opioids (e.g., fentanyl, tramadol)
- Methadone

**National Overdose Deaths**

Number of Deaths from Rx Opioid Pain Relievers

- Total
- Female
- Male

Source: National Center for Health Statistics, CDC Wonder

Opioid Epidemic: Ohio 2015-2016

- According to the Centers for Disease Control and Prevention, in 2015, Ohio had the fourth highest national rate of death due to overdose (29.9 per 100,000)

- According to the Ohio Department of Health (ODH), in 2016 Ohio’s age-adjusted unintentional overdose death rate was 36.8 per 100,000 people
  - 30% increase from 2015
  - 86% of these deaths were related to opioid use
  - Over half specifically related to fentanyl and related drugs
Opioid Epidemic: Ohio - Emergence of Fentanyl and related drugs

- The good news: 2016 showed the fewest unintentional overdose deaths involving prescription opioids since 2009
  - Ohio’s efforts to reduce prescription opioid supply appear to be working

- The bad news: Significant increase in overdose deaths involving fentanyl
Hocking County is the 13th least populous county in Ohio, but ranks in the middle of all counties in Ohio for unintentional drug overdose deaths.
CDC: Social Determinants of Health

- Economic Stability
- Education
- Social and Community Context
- Health and Health Care
- Neighborhood and Built Environment
Hocking County Community Health Assessment 2016

- Economic Stability
  - Over a quarter of population fall below federal poverty level
  - A fifth of households receive food stamps
  - 6.3% unemployment rate

- Education
  - 75.6% of population do not hold a degree (associate's or higher)
  - 94% four-year graduation rate

- Social / community context
  - 22% of males said they “rarely” or “never” get social and emotional support they need

- Health and Health Care
  - Physician/Population ratio: 1,149:1
  - Suicide rate is 25.8 per 100,000 suicide rate is (2.5 times that of the HP2020 target)

- Neighborhood / built environment
  - 40% of population reported experiencing at least one of five household environmental health issues mentioned in survey
Population Health Model: County Health Rankings and Roadmaps

1. Delayed Access to Involuntary Mental Health Examinations
2. Maternal Health Literacy Progression Among Rural Perinatal Women
3. Academic-Hospital Partnership: Conducting a Community Health Needs Assessment as a Service Learning Project
Existing Strategies: Hocking County Agencies

- Hocking County Health Department
- Athens-Hocking-Vinton Alcohol, Drug Addiction, and Mental Health Services Board (317 Board)
  - 18 community partners working to lead efforts to increase and improve mental health and addiction services
- Hocking County Opiate Task Force
  - Coordinates efforts of the medical, treatment, law enforcement, and community relations efforts to combat the opiate and heroin addiction crisis
    - Creation of a community-based strategic plan to address area’s priority health concerns
- Hocking County Municipal Vivitrol Drug Court
- Suboxone Clinic
Existing Strategies: 2017-2020 Hocking County Community Health Improvement Plan (CHIP)

By December 2020...

- Increase enrollment in medication assisted treatment (MAT) by 10% for those arrested for drug related crimes.
- Increase percentage by 10% persons with a drug related conviction enrolled in MAT that are in safe housing and employed.
- Increase the number of Project DAWN kits distributed to the general population through Health Department by 10%.
- Provide at least 1 evidence based prevention education program in Logan Hocking school district.
- Create support groups for users, friends, and families in Hocking County by 1 program a year.
Strengths in Hocking County’s Current Approaches

- Many different organizations offering resources across many health factors
- 2017-2020 Hocking County Community Health Improvement Plan was guided by a health population model
Gaps in Hocking County’s Current Approaches

“Hocking County Public Health provides key substance abuse education messaging through direct campaigns, through the Women, Infants and Children Program and during screening program for Hepatitis C”

Unintentional drug overdose deaths in Ohio disproportionately affect men 25-44

Education messaging is missing target population
Gaps in Hocking County’s Current Approaches

Hocking County Community Health Assessment 2016

- ~75% of survey respondents felt heroin was a major problem for their community
- ~70% felt prescription drug misuse was a major problem

Dichotomy between public perception and statewide trends
Gaps in Hocking County’s Current Approaches

In addition to all of the resources already in place for mental health and addiction services, there needs to be a renewed focus on prevention.

How do we stop the problem before it starts?
Hocking County Problem:

- With all of these resources available in the community, why is there still such a problem with substance abuse in Hocking County?
  - People in community that need help
  - People in community willing to help

- Where is the disconnect?
  - Are community members aware of all the services available?
  - Linkage to care?
  - Education?
Intervention step 1: Community Door-to-Door efforts

- Instead of waiting for community members to come to the resources, what if we brought the resources to them?
  - Target households with high “at-risk” populations of men 25-44
- Group consisting of Hocking County Public Health worker and/or public health nurse and/or social worker
  - Assess need for treatment
  - Help in navigation of resources
  - Community education on shift from prescription misuse to illicit drugs
    - Distribution of educational materials focused on fentanyl harm reduction

Intervention step 1: Community Door-to-Door efforts

Screening: Drug Abuse Screening Test (DAST-10)\textsuperscript{7} is a 10-item brief screening tool that can be administered by a clinician or self-administered. Each question requires a yes or no response, and the tool can be completed in less than 8 minutes. This tool assesses drug use, not including alcohol or tobacco use, in the past 12 months.

Screening should also be done by public health nurses to patients with chronic pain at the Hocking County Hospital and Pain Clinic.
Intervention step 1: Community Door-to-Door efforts

If positively screened....

- Bring naloxone - distribute to high at-risk households
- Treatment options - get those opt-in to treatment, start them immediately
- Determine substance abuse with children in house
- Connect with needed services if applicable to deter future drug use
  - Housing
  - employment
  - Medicaid
  - TANF
  - Other social services

http://medicaid.ohio.gov/
Intervention step #2: Community “by-name list”

- Additionally, community members are asked if they would like to opt-in to a community by-name list (from door-to-door and hospital screening)
  - By-list strategies have proven successful in communities where they were implemented to help end veteran homelessness
    - Tracking addiction status
    - Documented, coordinated outreach
  - By-list helps deal with common outreach barriers including;
    - Scheduling coordination
    - Data sharing across agencies
    - Common assessment tool
National Coalition for Homeless Veterans: By-name list

One Plan: THREE STRATEGIES

1. Know Who Is On Your List
2. Establish a Common Language
3. System Flow + Data Quality

National Coalition for Homeless Veterans: By-name list
Identify, Define, Justify Outcome Measures for Intervention

- **Short-term outcomes**
  - Improve linkage to care: immediately place those who are ready into treatment
  - Reduce the number of opioid prescriptions

- **Long-term outcomes**
  - Hocking County will approach a functional end to opioid overdoses by 2020
  - Hocking County will approach a functional end to deaths from opioid overdoses by 2020

- Increase in number of individuals identified as having a substance abuse addiction
- Increase in number of individuals screened for opioid abuse
- Provides community members with
  - Benefits community as it creates a guide to all available services and the means to navigate resources
- Part of a larger community surveillance tool to monitor service utilization and drug abuse
  - Financially beneficial as it consolidates and strengthens the already existing resource present in Hocking County
Evaluation Plan

- As part of the surveillance system, ease of tracking:
  - Rates of recidivism: overdose, death, treatment, etc.
  - Trends of services are being utilized most successfully
    - Helps determine allocation of funds
- Better determine demographics of those experiencing addiction

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**Data Quality - Balance Check**

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<th>Month</th>
<th>Actively Homeless</th>
<th>Placements</th>
<th>Moved to Inactive</th>
<th>Inflow</th>
<th>Returned to Active</th>
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\[ 206 - 35 - 5 + 30 + 4 = 200 \]
Resource Allocation Plan / Funding

- Create liaison(s) of communication between all community partners currently working in Hocking County
- Approximate funding requested: approximately $300,000
  - 1 Project Manager ($50,000)
  - 2 case managers trained in substance abuse ($80,000)
  - 1 nurse ($50,000)
  - 1 DEA agent ($55,000)
  - 1 Narcotics Anonymous member ($30,000)
  - Materials on treatment for distribution ($5,000)
  - Fentanyl/carfentanil drug testing strips ($5,000)

- Funding sources
  - 21st Century Cures Act
  - Community Donations
  - Conveyance fees
  - Hospital tax for patient visits
  - Convert 317 Board into 501(c)(4) organization to accept tax-free donations
# Funding Distributions

## Hocking County Drug Prevention Funding Plan

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<th>Personnel</th>
<th>Annual Amount</th>
<th>Projected # Months</th>
<th>Monthly Amount</th>
<th>Base Amount for Proposal</th>
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Weakness/Limitations

- **Time allocation:**
  - “Boots on the ground” strategies are time consuming
  - By-list will take time to create and manage data
  - Mitigation: expectation is that overtime the process will be easier to manage, and those on the list will reduce

- **Potential barrier of low-response, interest, and consent**
  - Mitigation: door-to-door crew should be non-judgemental, ensure being added to treatment list will not result in persecution

- **Buy-in from all community partners**
  - Mitigation: community partners are already invested and all community members are impacted by this crisis

- **Expensive**
  - Hiring nurses, case managers, and law enforcement for door-to-door engagement
  - Once more people sign on for treatment, case managers will have more clients to manage
  - Mitigation: create a sustainable funding source (such as the levy which the 317 Board already receives)
References (APA)

8. Campbell, K. (2016). *Building a By-Name List to End Veterans Homelessness*
12. Prompt: “1st Annual OSU College of Public Health Student Case Competition”
Questions?

Thank you.