ACCEPTABILITY & FEASIBILITY OF FATAL OVERDOSE PREVENTION WITH PEER-ADMINISTERED NALOXONE IN RURAL WV: PARTNERSHIP & PROPOSAL DEVELOPMENT

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Injury Control Research Center
BACKGROUND

- Growing epidemic of prescription opioid abuse and death is gripping US
- Poisoning has surpassed MVC as leading cause of injury-related death in US.

NOTE: In 1999, the International Classification of Diseases, Tenth Revision (ICD-10) replaced the previous revision of the ICD (ICD-9). This resulted in approximately 5% fewer deaths being classified as motor-vehicle traffic-related deaths and 2% more deaths being classified as poisoning-related deaths. Therefore, death rates for 1999 and earlier are not directly comparable with those computed after 1999. Access data table for Figure 1 at http://www.cdc.gov/nchs/data/series/sdr81_tables.pdf#1. SOURCE: CDC/NCHS, National Vital Statistics System.
BACKGROUND

- Though traditionally concentrated in urban areas, death due to drug overdose has rapidly increased in rural areas.
- Drug OD is a leading cause of mortality in Appalachia
- WV still had the highest rate of resident overdose deaths in the nation in 2012
Note: Manner of suicide excluded. 2011 is preliminary and unpublished data; 2012 is cumulative.
WV Bureau for Public Health – Health Statistics Center (closed data sets from 2001-2010; entry data sets 2011-2012.)
RESIDENT OVERDOSE DEATH RATES IN THE US, 2010

Age-adjusted rate per 100,000 population

- Dark blue: 15.5 – 28.9
- Dark orange: 10.2 – 12.3
- Orange: 7.8 – 10.1
- Light orange: 3.4 – 10.1

States and rates:
- NH: 11.8
- VT: 9.7
- MA: 11.0
- RI: 15.5
- CT: 10.1
- NJ: 9.8
- DE: 16.6
- MD: 11.0
- DC: 12.9
Prescription drugs play an important role, replacing heroin and cocaine as the leading drugs involved in overdoses nationwide.

Figure 3. Number of drug poisoning deaths involving opioid analgesics and other drugs: United States, 1999–2008

1 Opioid analgesics include natural and semi-synthetic opioid analgesics (for example, morphine, hydrocodone, and oxycodone) and synthetic opioid analgesics (for example, methadone and fentanyl). Some deaths in which the drug was poorly specified or unspecified may involve opioid analgesics.

NOTES: Drug categories are mutually exclusive. Access data table for Figure 3 at http://www.cdc.gov/nchs/data/databriefs/db61_tables.pdf#3.

PARTNERSHIP DEVELOPMENT

- Joshua Murphy
  - STOP Coalition of Mingo County
- Tim White, Prestera Center
  - Citizen member of the Governor’s Advisory Council on Substance Abuse
  - Coordinator for Region 5 of the six regional Substance Abuse Task Forces
- Jeremy Farley
  - PIECES Coalition of Logan County / WVU Extension Agent
ICRC OUTREACH ACTIVITY

- Synthesis of the literature on prescription drug overdose prevention
**BACKGROUND**

- In the 1990s during the heroin overdose epidemic concentrated in urban centers, overdose prevention programs utilizing peer-administered naloxone were developed, implemented, and evaluated.
- Shown to be effective at reversing overdoses.
BACKGROUND

- Yet, OOPPs have not been translated and implemented widely in the Appalachian region
- To our knowledge, no OOPPs presently exist in several high-risk Appalachian states including WV.
BACKGROUND

Appalachian Culture
- Rigid gender norms
- Familism vs. individualism
- Fatalistic health beliefs
- Mistrust and underutilization of the healthcare system
CRITICAL NEED

- For OOPPs to be translated for use in rural settings, including WV.
FUNDING ANNOUNCEMENT

- Community Engagement and Outreach Program
RESEARCH TEAM

- Academic team members
- Academic – Community Liaison
- Community team members
THE RESEARCH PROCESS

Choosing the research question

Developing the protocol

Pre-testing and revising the protocol

Carrying out the study

Analyzing the findings

Drawing and disseminating the conclusions
PROPOSAL

Long-term Research Goal
- To develop, evaluate, and disseminate effective OOPPs throughout Appalachia

Research Objective
- To assess the feasibility and acceptability of an OOPP with take-home naloxone among communities in southern WV

Rationale
- By assessing the feasibility of and acceptability to key constituencies of such a program, barriers can be identified and avoided, and the intervention can be tailored to the specific community in which the program will be piloted.
AIMS

**Specific Aim #1:** Assess the feasibility of an OOPP with peer-administered naloxone and its acceptability to members of the community who misuse or abuse opioids and are at high risk of witnessing or experiencing an overdose.

**Specific Aim #2:** Assess the acceptability of an OOPP with peer-distributed naloxone to prescribers and dispensers of naloxone in the community.
AIM #1

- Participants
  - Community members, who have recently, or currently misuse/abuse opioids will be recruited.

- Recruitment
  - Respondent-driven sampling

- Data Collection
  - Interviews conducted by community members of the research team
  - Domains of interview
    - Witnessed overdose(s)
    - Experienced overdose(s)
    - History and patterns of drug use
    - Network
    - Knowledge of OOPPs
    - Willingness to participate in OOPP
    - Sociodemographic data
AIM #2

- Participants
  - Mailed survey - all community prescribers and dispensers
    - Knowledge of OOPP
    - Willingness to participate in OOPP
  - Structured interviews – two prescribers and two dispensers per county
    - One proponent each per county
    - One opponent each per county
## OPIOID USER SURVEYS COMPLETED

<table>
<thead>
<tr>
<th>County</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boone County</td>
<td>50</td>
</tr>
<tr>
<td>Logan County</td>
<td>16</td>
</tr>
<tr>
<td>Mingo County</td>
<td>12</td>
</tr>
<tr>
<td>Wyoming County</td>
<td>48</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>126</strong></td>
</tr>
</tbody>
</table>
PRELIMINARY FINDINGS

- Data entered for n = 67
OVERDOSE EXPERIENCE

- 31 (46%) of the 67 respondents for whom we have entered data reported witnessing an overdose

- 15 (22%) of the 67 respondents for whom we have entered data reported experiencing an overdose
KNOWLEDGE OF NALOXONE

- 30 (46%) of the 67 respondents for whom we have entered data reported hearing of Narcan®
- 23 (35%) of the 67 respondents for whom we have entered data reported hearing of naloxone
- 12 (18%) of the 67 respondents for whom we have entered data reported hearing of overdose prevention programs
OVERDOSE PREVENTION PROGRAMS

Opioid overdose prevention programs exist in other areas such as big cities like New York and Chicago and other states such as New Mexico. These programs require a 20 – 40 minute training session that teaches participants about:

- How to prevent an overdose,
- How to recognize an overdose,
- Best actions to take when someone is overdosing,
- Calling 911,
- How to perform rescue breathing,
- The rescue medication naloxone, and
- Practice using naloxone.

Because opioid overdose can be life-threatening, anyone who uses opioids (with or without a prescription) or anyone who comes in contact with people who use opioids (like friends or family members) can benefit from overdose prevention training.
PARTICIPATION IN OOPP

- After being informed of the components of an overdose prevention program with peer-distributed naloxone, 60 (90%) of the 67 respondents for whom we have entered data reported that they would participate in an OOPP.
WHERE DO WE GO FROM HERE?

Herb Linn, MS
Assistant Director for Outreach, Injury Control Research Center
West Virginia University
## A WEST VIRGINIA & APPALACHIAN PROBLEM

### Age-Adjusted Rates of Unintentional, Drug Poisonings (Overdoses), WV and US, 1999-2012

<table>
<thead>
<tr>
<th>State</th>
<th>Age-Adjusted Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Virginia</td>
<td>28.5</td>
</tr>
<tr>
<td>Kentucky</td>
<td>22.1</td>
</tr>
<tr>
<td>New Mexico</td>
<td>21.0</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>17.2</td>
</tr>
<tr>
<td>Ohio</td>
<td>17.0</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>16.8</td>
</tr>
<tr>
<td>Nevada</td>
<td>16.7</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>16.6</td>
</tr>
<tr>
<td>Alaska</td>
<td>15.2</td>
</tr>
<tr>
<td>Tennessee</td>
<td>15.0</td>
</tr>
</tbody>
</table>

**Graph:**

- **X-axis:** Year (1999-2012)
- **Y-axis:** Age-Adjusted Rate
- **West Virginia**
- **United States**
A WEST VIRGINIA & APPALACHIAN PROBLEM
REQUIRES A WEST VIRGINIA AND APPALACHIAN SOLUTION...
SO, BASED UPON:

- Results of the feasibility study
- Success of programs addressing heroin users in U.S. cities
- Results of two naloxone initiatives in Central Appalachia
- Lack of any programs in WV, the highest-risk state
- An almost universal acknowledgement of need
- Growing interest among multiple individuals/orgs in WV
- Potential availability of funds (Federal and state)
- New collaboration with Project Lazarus CEO Fred Brason...
INITIATE COMMUNITY-LEVEL NALOXONE DISTRIBUTION PROGRAM(S) IN WEST VIRGINIA

- WVU Injury Control Research Center...
  - Cannot design and implement such a program
  - Can organize and facilitate a meeting to discuss such programs, and if program(s) are initiated,
  - Can support the effort and provide technical assistance as needed
  - Can conduct implementation evaluation study and report the results
FIRST STEPS...

- Invite interested state, regional, community leaders to an “exploratory” meeting to discuss such community-level programs

- Explore funding mechanisms that might support implementation and evaluation of such programs

- Collaborate with Fred Brason to take advantage of his experience and expertise
WHO IS INTERESTED?

- The WVU Injury Control Research Center
- The West Virginia Violence and Injury Prevention Program (DHHR)
- The Governor’s Substance Abuse Prevention Region 5 (10 counties in southwestern WV)
- The WVU Schools of Public Health and Pharmacy
- The U.S. Attorney’s Office
- The WV Division of Justice and Community Services
- Key WV Legislators (Sen. Stollings, Del. Perdue)
- The WV Behavioral Health Planning Council
- etc.
If you may be interested in attending, give me your business card, write down your name/email before I leave, or email me. I’ll probably conduct a doodle poll very shortly...
TWO POTENTIAL SCENARIOS...

- Programs administered through the WV Day Report Centers (under the jurisdiction of the WV Drug Court network)

- (and/or) Program addressing incarcerated offenders (e.g., upon release from incarceration)

- Funding through WV Division of Justice and Community Services Justice Assistance Grants (JAG) Program, or Federal block grants from agencies such as SAMHSA or HRSA
TEAM MEMBERS

- Herb Linn
  - Director of Outreach, WVU ICRC
- Tim White, Prestera Center
  - Citizen member of the Governor’s Advisory Council on Substance Abuse
  - Coordinator for Region 5 of the six regional Substance Abuse Task Forces
- Joshua Murphy
  - STOP Coalition of Mingo County
- Jeremy Farley
  - PIECES Coalition of Logan County / WVU Extension Agent
- Lisa Murphy
- Alexandria Macmadu
- Danielle Davdov
  - Assistant Professor, WVU Departments of Emergency Medicine and Social & Behavioral Sciences
- Jeff Coben
  - Director, WVU ICRC
- Leann Long
  - Assistant Professor, WVU Department of Biostatistics
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Thank You!

Questions?
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