

APPENDIX

Overview of the Naloxone Distribution Effort

Several agencies collaborated to implement this program: the WV Department of Health and Human Resources (WVDHHR) Bureaus of Behavioral Health and Health Facilities (WVBBHBF) and Public Health (WVBPH), the WV University Injury Control Research Center (WVUICRC), WV Simulation Training and Education for Patient Safety (WVSTEPS), and the WV University (WVU) Medical Center Pharmacy. The funding for this project arose from two existing federal grants: a Substance Abuse and Mental Health Services Administration (SAMHSA) grant (managed by the WVBBHBF), and a Centers for Disease Control and Prevention (CDC) grant (managed by the WVBPH). The statewide naloxone distribution effort became a Rapid Response Project (RRP) under the CDC's Prescription Drug Overdose Prevention for States grant. SAMHSA funds were used to purchase naloxone, associated materials and supplies. CDC funds could not be used to purchase naloxone but were used to cover staffing and administrative costs to conduct and evaluate the effort. The WVUICRC managed and evaluated the distribution, WVSTEPS provided naloxone trainings, and the WVU pharmacy stored and dispensed the naloxone.

All the materials to assemble the naloxone kits (including the drug) had to be purchased up front to meet a grant expiration deadline. The naloxone kits consisted of a container, two doses of naloxone (e.g. Amphastar Luer-lock needless syringes), two Teleflex Mucosal Atomization Devices (atomizers), an instruction sheet outlining the administration of naloxone, two exam gloves, a naloxone administration card for reporting, and information on WV's Good Samaritan Law.

While several OEND programs commenced by 2016, there was not a comprehensive list of existing programs in WV. The WVUICRC had to coordinate with the Governor's Substance

Abuse Task Force staff to identify these programs, which included police departments, fire departments, and other ‘on-site’ programs. ‘On-site’ programs were those wherein a naloxone rescue kit(s) was maintained on an organization’s premises to protect staff members and visitors in the event an overdose took place (e.g. correction facilities, schools, day report centers, etc.).

In parallel with the effort to identify candidate programs, a prioritization method was developed to facilitate a systematic and equitable distribution of naloxone kits in case demand exceeded supply. A prioritization score was calculated based on three separate components: 1) an overdose death risk score based on overdose mortality rate for the county where the program was located 2) a program type score which gave priority to organizations who dealt directly with high-risk clients and 3) a naloxone need score which was based on self-reported responses to an electronic survey administered using REDCap software. To determine how much naloxone an organization ‘needed’, factors such as the number of clients served, whether the agency already had naloxone, etc. were considered. The survey (known as the ‘Needs Assessment’) was designed and tailored to each type of organization and had to be completed by all programs in order to receive naloxone. These scores were then summed to reach an overall priority score that was used for ranking purposes.

Scoring and Ranking of Agencies

To ensure a systematic and equitable distribution of naloxone to participating agencies, a prioritization method was developed. This entailed a prioritization “score” that was based on three separate components: 1) an overdose death risk score based on overdose mortality rate for the county where the program was located 2) a program type score which gave priority to organizations who dealt directly with high-risk clients and 3) a naloxone need score which was based on self-reported responses to an electronic survey administered using REDCap software.

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Overdose Death Risk Score

The risk score was derived by ranking WV counties by the rate of opioid-involved overdose deaths for the period from 2012 through 2016. Counties that were ranked in the top tier of counties for the rate of opioid-involved overdose deaths (number of deaths per 100,000 population) were assigned a score of 50 points. Counties ranked moderately were assigned a score of 40 points. Counties ranked lower in rate were assigned a score of 30 points. A screenshot of the table (Figure 1A) used for scoring overdose death risk based upon the county of location for participating organizations.

2012-2016 deaths/rates				2012-2016 deaths/rates					
County	#deaths	population	rate	County	#deaths	population	rate		
Kanawha	385	192,179	40.1	Cabell	357	96,974	73.6	Cabell	50
Cabell	357	96,974	73.6	Boone	73	24,478	59.6	Boone	50
Berkeley	247	107,098	46.1	Wyoming	67	23,273	57.6	Mingo	50
Raleigh	173	79,021	43.8	Mingo	74	26,103	56.7	Mercer	50
Mercer	165	62,523	52.8	Mercer	165	62,523	52.8	Logan	50
Wood	109	86,701	25.1	McDowell	53	21,326	49.7	Berkeley	50
Monongalia	107	100,332	21.3	Logan	85	36,168	47.0	Raleigh	50
Logan	85	36,168	47.0	Berkeley	247	107,098	46.1	Kanawha	50
Fayette	78	45,869	34.0	Brooke	55	23,853	46.1	Fayette	40
Mingo	74	26,103	56.7	Raleigh	173	79,021	43.8	Wyoming	40
Boone	73	24,478	59.6	Kanawha	385	192,179	40.1	McDowell	40
Jefferson	73	54,504	26.8	Fayette	78	45,869	34.0	Brooke	40
Harrison	71	69,141	20.5	Summers	22	13,737	32.0	Summers	40
Wyoming	67	23,273	57.6	Webster	14	9,043	31.0	Webster	40
Wayne	63	41,649	30.3	Morgan	27	17,471	30.9	Morgan	40
Brooke	55	23,853	46.1	Wayne	63	41,649	30.3	Jefferson	40
McDowell	53	21,326	49.7	Nicholas	38	26,229	29.0	Monroe	40
Ohio	44	44,075	20.0	Lincoln	30	21,627	27.7	Wood	40
Putnam	41	56,435	14.5	Jefferson	73	54,504	26.8	Monongalia	40
Greenbrier	40	35,820	22.3	Monroe	17	13,463	25.3	Wayne	30
Marion	38	56,678	13.4	Wood	109	86,701	25.1	Nicholas	30
Nicholas	38	26,229	29.0	Greenbrier	40	35,820	22.3	Lincoln	30
Hancock	33	30,305	21.8	Hancock	33	30,305	21.8	Greenbrier	30

Figure 1A. Prioritizing of counties by Risk Level.

Program Type/Population Served Score

Only three types of programs were assigned scores reflecting higher priority among other types of programs—non-EMS first response agencies whose staff might be expected to administer naloxone to suspected overdose victims; programs that served patients or clients who are reasonably assumed to face high risk of overdose themselves (such as treatment or recovery programs, harm reduction programs, and day report centers or other community justice programs); and other programs that did not regularly interact with high-risk persons who use drugs. These are detailed in Figure 2A below.

Calculating a Program Priority Score

Type (30 points): Priority will be given to programs that serve patients or clients in acute situations or among high-risk populations

- 1) First responder (i.e. Fire and Police departments) (30 points)
- 2) Take-Home Programs that service high-risk patients/clients for overdose (20 points)
 - this includes syringe exchange, substance abuse treatment and recovery programs, day report centers,
- 3) Take-Home Programs that serve lower risk clients (10 points)
 - this includes public health departments with “open” programs (i.e., for general public)

Figure 2A. Calculating a Program Priority Score.

Naloxone Need Score

A Naloxone Need Score was assigned to each candidate program based upon self-reported need expressed in the program’s response to a survey. Essentially, need was based upon whether the program had naloxone, whether it was enough for the program’s operation during the next 6 months, or whether the expiration date of the doses on hand was within the next 6 months. The point distribution is shown in Figure 3 A. below.

Calculating a Naloxone Need Score**Supply (20 points): Priority is given to facilities whose current needs are not met**

1) Amount of naloxone on-site vs. client/patient need

- If facility has no naloxone on-site (20 points)
- If facility has naloxone, but does not meet the need (15 points)
- If facility has naloxone and does meet the need (0 points)

2) Expiration date of current supply

- If supply (or portion of supply) expires within 3 months of survey (5 points)
- If supply expires within 6 months from survey (3 points)
- If supply expires over 6 months from survey (0 points)

Figure 3A. Calculating a Program Priority Score.

After the points were added, agencies were ranked. Those with higher scores were distributed naloxone first. Those with lower scores received naloxone next. This continued until all kits were distributed.

Questions on Needs Assessment Surveys For Take Home Naloxone Distribution**Programs**

What is the name and address of your facility?

Please indicate which type best describes your organization. (check all that apply) Local health department Health care provider Treatment/recovery program Harm reduction program (e.g., needle exchange, free clinic, etc.) Criminal justice facility (e.g., jail or prison) Community justice facility (e.g., day report center) School, College or University Other

If other, please specify.

Does your facility currently have a naloxone distribution program? Yes No Unsure

When did your naloxone distribution program begin? ((mm/yyyy))

Is your facility interested in starting a naloxone distribution program? Yes No Unsure

Please provide us with preferred contact information (name, address, email, phone number, preferred contact method, and when you can be reached)

The following questions pertain to your naloxone distribution program. Does your organization: (check all that apply) Provide overdose recognition and response training to your patient/clients Prescribe or dispense naloxone to patient/clients Keep naloxone on-site in the event an individual overdoses at your facility

Is your facility interested in prescribing or dispensing naloxone to individuals? Yes No Unsure

As of today, how many doses of naloxone are kept on-site?

(On-site in case one of your patient/clients or a visitor overdose at your facility. IF YOU HAVE "NALOXONE RESCUE KITS" WITH MULTIPLE DOSES OF NALOXONE, PLEASE COUNT EACH DOSE SEPARATELY.)

Does your facility need additional doses of naloxone, to be kept on-site? Yes No Unsure

How many additional doses of naloxone does your facility need?

Considering this supply of naloxone, when is the earliest expiration date?

How many doses will need to be replaced soon, due to the expiration date?

On average, how many opioid-dependent patient/clients does your facility treat per month?

How do your opioid-dependent patient/clients obtain their naloxone? Choose the scenario that best describes your facility's process. The patient/client independently fills their prescription at a pharmacy. The patient/client receives naloxone from our facility. Some patient/clients fill their prescriptions independently at pharmacies and others are provided with naloxone by our facility. Other

If other, please specify.

On average, how many prescriptions of naloxone are written per month at your facility?

Does your facility want to provide your opioid-dependent patient/clients with naloxone? Yes No Unsure

As of today, how many doses of naloxone are kept at your facility, for your patient/clients?

(IF YOU DISTRIBUTE "NALOXONE RESCUE KITS" WITH MULTIPLE DOSES OF NALOXONE, PLEASE COUNT EACH DOSE SEPARATELY.)

Does your facility need additional doses of naloxone for your patient/clients? Yes No Unsure

How many additional doses of naloxone does your facility need?

Considering this supply of naloxone, when is the earliest expiration date?

How many doses will need to be replaced soon, due to the expiration date?

This section refers to the use of naloxone in an on-site program. Has naloxone ever been administered to a suspected overdose victim at your facility? Yes No Unsure

To date, how many individuals have been revived by naloxone at your facility?

(Please do not include numbers from first responders.)

To date, how many times has naloxone been administered and an individual did not survive?

(Please do not include numbers from first responders.)

Please describe how you document these naloxone administrations.

This section refers to reporting of overdoses and/or reversals among your patients/clients Do your patient/clients report overdose reversals to your facility? Yes No Sometimes Unsure

Please describe how you document these overdose reversals

To date, how many of your patient/clients were revived by naloxone?

(Please do not include numbers from first responders.)

To date, how many of your patient/clients were administered naloxone, but did not survive?

(Please do not include numbers from first responders.)

Questions on Needs Assessment Surveys For Fire Services

What is the name of your department?

Does your department currently have a naloxone program? Yes No Unsure

Is your department interested in starting a naloxone program? Yes No Unsure

Please provide us with preferred contact information (name, address, email, phone number, preferred contact method, and when you can be reached)

The following questions pertain to your department.

This will give us a better understanding of the size of your department. As of today, how many fire fighters belong to your department? Please include both paid and volunteer fire fighters in this figure.)

How many fire trucks does your department have?

The following questions pertain to your naloxone program.

IF YOU USE "NALOXONE RESCUE KITS" WITH MULTIPLE DOSES OF NALOXONE, PLEASE COUNT EACH DOSE SEPARATELY. When did your department begin to supply its fire fighters with naloxone? (mm/yyyy)

How many total doses of naloxone does your department currently possess?

How does your department distribute naloxone? Select all that apply. Provided to specific individuals Provided to specific fire trucks Other

How many individuals in your department are supplied with naloxone?

How many fire trucks are supplied with naloxone?

Please explain how your department distributes naloxone.

Does your department need additional doses of naloxone? (e.g, to equip those who do not carry on a given shift; or to provide extras to replace doses that are used) Yes No Unsure

How many additional doses of naloxone does your department need?

Considering your supply of naloxone, when is the earliest expiration date?

How many doses will need to be replaced soon, due to the expiration date?

The following section pertains to the funding of your naloxone program. Please provide the source(s) of funding for your naloxone program? (e.g. private grants, state grants, self-funded, etc.)

Will these funding sources continue to support your naloxone program? Yes No Unsure

Questions on Needs Assessment Surveys For Law Enforcement

What is the name of your department?

Does your department currently have a naloxone distribution program? Yes No Unsure

Is your department interested in starting a naloxone distribution program? Yes No Unsure

Please provide us with preferred contact information (name, address, email, phone number, preferred contact method, and when you can be reached)

The following questions pertain to your department.

This will give us a better understanding of the size of your department. How many officers does your department currently employ? (Please include both full and part-time officers in this figure.)

In the past 30 days, what was the maximum number of officers on duty at the same time?

The following questions pertain to your naloxone distribution program.

IF YOU DISTRIBUTE "NALOXONE RESCUE KITS" WITH MULTIPLE DOSES OF NALOXONE, PLEASE COUNT EACH DOSE SEPARATELY. When did your agency begin to supply officers with naloxone? (mm/yyyy)

How many total doses of naloxone does your department currently possess?

Does your agency supply all officers with naloxone? Yes No Unsure

How does your department distribute naloxone? Select all that apply. Provided to specific patrol officers Provided to specific shifts Other

How many specific officers are supplied with naloxone?

How many officers are supplied with naloxone per shift?

Please explain how your department distributes naloxone.

Does your department need additional doses of naloxone? (e.g, to equip officers who do not carry on a given shift; or to provide extras to replace doses that are used) Yes No Unsure

How many additional doses of naloxone does your department need?

Considering your supply of naloxone, when is the earliest expiration date?

How many doses will need to be replaced soon, due to the expiration date?

The following section pertains to the funding of your naloxone distribution program. Please provide the source(s) of funding for your naloxone distribution program? (e.g. private grants, state grants, self-funded, etc.)

Will these funding sources continue to support your naloxone distribution program? Yes No Unsure