RVCR

ROANOKE VALLEY

COLLECTIVE RESPONSE

BLUEPRINT FOR ACTION

A COMMUNITY DRIVEN PLAN TO ABATE THE OPIOID AND ADDICTION CRISIS IN THE ROANOKE VALLEY.

I. A NOTE OF THANKS FROM THE RVCR LEADERSHIP

Dear Community Members:

Undoubtedly, the Roanoke Valley is a community in the throes of an addiction crisis. But, as signaled by this Blueprint, we are also, without question, a community of innovative ideas, determination, strength, and hope. As our community comes together on this plan, we must be sure that we work in tandem to enhance protective factors while we reduce our risk factors. This three-year (2020-2023) Blueprint to Action is one way of incorporating this approach into our community planning. Taking a science-based approach to the continuum of care, the Blueprint focuses on the key focus areas of: Prevention, Treatment, Connection to Care, Child and Family Support, and Recovery. As importantly, with extensive input from our stakeholders, the recommendations reflect the insights of a caring community. To that end, we believe that this Blueprint will move us forward and will increase assurances that all persons in our community, at any stage in life, can always find pathways to health and well-being.

We are grateful for the support and collaborative spirit of our RVCR partner organizations and stakeholders who contributed to this Blueprint in immeasurable ways through our five working groups (Prevention, Treatment, Connection to Care, Child and Family Support, and Recovery). A full listing of our members is provided in the Appendices. We express special appreciation to the following individuals who contributed countless hours of service to assure the completion of our Blueprint through writing, reviewing, editing and other services:

- **Elizabeth Allen,** VT Institute for Policy and Governance (Facilitation and Data Analysis)
- **Christine Baldwin, CPRS,** Project Director, HOPE Iniative
- **James Chapman,** Roanoke County Police Department (RVCR Steering Committee Member)
- **Lee Clark,** CEO, Rescue Mission of Roanoke (RVCR Steering Committee Member, Recovery Group Leader)
- **Niles Comer,** Addiction Recovery Specialist/Certified Peer Recovery Specialist (Writing Team)
- **Mary Beth Dunkenberger,** Associate Director/Research Faculty, VT Institute for Policy and Governance (Facilitation and Writing Team)
- **Nancy Hans,** MEd, Executive Director, Prevention Council of Roanoke County (RVCR Steering Committee Member, Prevention Group Leader, Writing Team)
- **Cheri Hartman,** PhD, Grant Project Director, Carilion Clinic (RVCR Steering Committee Member, Treatment Group Leader, Writing Team)

A NOTE OF THANKS FROM THE RVCR LEADERSHIP (*CONTINUED*)

- **Carrie Kroehler,** Associate Director, Center for Communicating Science, Virginia Tech (Blueprint Editor)
- **Robert Natt,** Partnership & Business Development Director, Vinod Chachra IMPACT Lab, Radford University, (RVCR Steering Committee Member)
- **Laura Nelson,** VT Institute for Policy and Governance (Facilitation and Writing Support)
- **Amy Pierce,** Healthy Minds Program Coordinator, Western Virginia Regional Jail (RVCR Steering Committee Member, Child and Family Support Group Leader)
- **Karen Pillis,** MS, Director of Mental Health Services, Family Services of Roanoke Valley, (RVCR Steering Committee Member)
- **Jill Pritts, Project Manager,** Family Services of Roanoke Valley (Writing Team)
- **Kristen Schorpp,** PhD, Assistant Professor, Roanoke College (Writing Team)
- **Amber Tiller**, Roanoke County Department of Social Services Resource Coordinator (Blueprint Design)

Focusing on a three-year time frame, we acknowledge that it may not be possible to achieve all of the Blueprint's 22 recommendations. However, we are committed to the Roanoke Valley through our RVCR partnerships to accomplish all that we can together, as quickly as possible.

KIMBERLY HORN
FOUNDING CO-CHAIR, RVCR

JANINE UNDERWOOD
FOUNDING CO-CHAIR, RVCR

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II. ACRONYMS AND DEFINITIONS

ADA: Americans with Disabilities Act
ARTS: Addiction and Recovery Treatment Services
ASAM: American Society of Addiction Medicine
BAA: Business Associates Agreement
CADCA: Community Anti-Drug Coalitions of America
CDC: Centers for Disease Control and Prevention
CFR: Code of Federal Regulations
COC: continuum of care
CRCC: Crisis Response and Connection to Care
ED: Emergency Department
EMS: Emergency Medical Services
EMTALA: Emergency Medical Treatment and Labor Act
FAACT: Framework for Addiction Analysis and Community Transformation
FMLA: Family and Medical Leave Act
HEP: Hepatitis
HFW: High Fidelity Wraparound
HIDTA: High Intensity Drug Trafficking Area program
HIV: Human Immunodeficiency Virus
HMIS: Homeless Management Information System
ICC : Intensive Care Coordination
MST: Multisystemic Therapy for Juveniles
MSA: Metropolitan Service Area
NADA: National Acupuncture Detoxification Association
NAMI: National Alliance on Mental Illness
NAS: Neonatal Abstinence Syndrome
ODMAP: Overdose Detection Mapping Application Program
PHI: Personal Health Information
PRS: Peer Recovery Specialist
RAYSAC: Roanoke Area Youth Substance Abuse Coalition
REVIVE!: Opioid Overdose and Naloxone Education program of Virginia
RMS: record management system
RSAT: Residential Substance Abuse Treatment
RVCR: Roanoke Valley Collective Response
SAMHSA: Substance Abuse and Mental Health Services Administration
SBIRT: Screening, Brief Intervention, and Referral to Treatment
SE: Supported Employment
SHRM: Society of Human Resource Managers
SPF: Strategic Prevention Framework
START: Sobriety Treatment and Recovery Teams
SUD/OUD: Substance Use Disorder/Opioid Use Disorder
TASC: Treatment Alternatives for Safe Communities
TICN: Trauma Informed Care Network
VDBHDS: Virginia Department of Behavioral Health and Developmental Services
VDH: Virginia Department of Health
VT: Virginia Tech

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III. EXECUTIVE SUMMARY

The Roanoke Valley Metropolitan Service Area (MSA; counties of Botetourt, Craig, Roanoke, and Franklin and cities of Roanoke and Salem) continues to experience the devastating consequences of opioid misuse and dependence. Exacerbating this public health crisis is the escalation of dependence on methamphetamines and other drugs. **Bottom line: The Roanoke Valley persists in an addiction crisis.**

THE RVCR MISSION:

To re-chart the course of substance use disorder in our community—not only preventing, but ensuring that there are always pathways to healthy and sustainable living for those affected by addiction.

Nearly 300 of our community members died from drug overdoses between 2015-2018; thousands more are actively struggling, impacting the health and well-being of equal numbers of children and families in the wake. Emergency rooms are experiencing increases in overdose-related visits, and incidents of children born dependent on drugs also is on the rise, with effects lasting generations. Hepatitis is also rapidly increasing among individuals who inject opioids and other drugs. These incidents lead to services strain and mounting costs for first responders, emergency departments and hospitals, law enforcement and judicial systems, and child and family services, to name only a few. The Roanoke Valley has not been idle in this crisis, but the magnitude of the problem is unlike anything our community has experienced in recent history and, likewise, requires a response unlike any we have historically used. To that end, the **Roanoke Valley Collective Response to the Opioid and Addiction Crisis (RVCR)** came together in September 2018 using a collective impact model to convene high influencers working together across multiple sectors. In getting at the root causes of the addiction, the group strives to influence policies, practices, social support, cultures and norms, and the physical environment in new ways. Generated by nearly 300 stakeholders working across the continuum of care, **RVCR Blueprint to Action** prioritizes the categories of **prevention, treatment, crisis response, recovery, and child and family support**. The present Blueprint presents **22 evidence-based, community-driven recommendations** with the purpose of providing the Roanoke Valley a roadmap to abate our substance use disorder (SUD) crisis. *Of note, these recommendations are not ranked or weighted in any particular order.*

The Blueprint, which synthesizes a shared future vision, is based on a **3-year timeframe**. We acknowledge that while it may not be possible to achieve all recommendations, we must accomplish all that we can *together as quickly* as possible. We also acknowledge that the RVCR work does not stop with this Blueprint. The RVCR intends to work closely with area officials and stakeholders to advocate, lead, guide, and advise as needed as the Roanoke Valley enacts the recommendations and the outcomes are realized.

SNAPSHOT OF RECOMMENDED PRIORITIES

PREVENTION AND EDUCATION

Priority 1: Use data-driven approaches to identify at-risk populations within the Roanoke Valley MSA with greatest prevention service needs.
Priority 2: Provide prevention education across a range of sectors emphasizing the need for and benefits of prevention, including prevention efficacy and economic benefit.
Priority 3: Apply the "Seven Strategies for Community Change" to implement new and expand existing prevention programs across the spectrum of severity and diverse populations.
Priority 4: Promote safe and effective pain management practices.

TREATMENT

Priority 1: Improve compatibility in data systems across the medical, planning, and emergency response sectors to enable more effective data sharing related to prescriptions and prior care.
Priority 2: Increase interagency collaboration to ensure that best treatment practices are available and applied across the continuum of care.
Priority 3: Strengthen continuum of care and transitions in care to reduce gaps and interruptions in treatment.
Priority 4: Initiate quick-response treatment options.

CRISIS RESPONSE AND CONNECTION TO CARE

Priority 1: Use ODMAP and FAACT platforms to determine OUD/SUD overdose prevalence, predictors, and trends across the Roanoke Valley MSA and within distinct geographic communities.
Priority 2: Use ODMAP and FAACT platforms and other available data to inform geographic- and individual-level treatment strategies, including harm reduction.

Priority 3: Implement trauma informed response services to those at risk of and experiencing overdose.
Priority 4: Expand and create resources that complement existing programs through law enforcement and criminal justice efforts and support individuals transitioning into the community from incarceration.
Priority 5: Increase access to Naloxone and other harm reduction methods, with emphasis on high-risk geographic areas.

CHILD AND FAMILY SUPPORT

Priority 1: Develop interagency processes to support families impacted by OUD/SUD.
Priority 2: Implement and monitor best practices to prevent family disruption and/or enable family reunification.
Priority 3: Educate the *Community at Large* about the effects of OUD/SUD on children and families and about impact in the Roanoke Valley.
Priority 4: Expand supportive networks and physical spaces for children and families impacted by active OUD/SUD.

RECOVERY

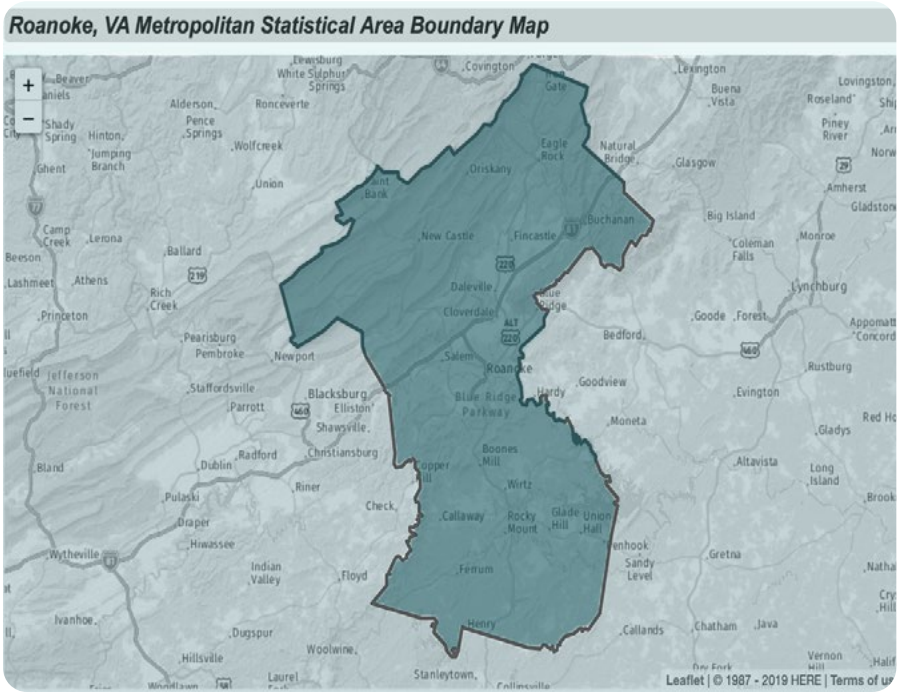
Priority 1: Educate multiple stakeholders, prioritizing businesses that are open to hiring people in recovery, about the many paths to recovery and the importance of coordinated care.
Priority 2: Build a roadmap for employers that provides information about how recovery can be mutually beneficial.
Priority 3: Establish and sustain dialogue with the insurance sector to increase coverage for recovery services.
Priority 4: Increase availability of recovery ("sober") housing and wrap-around services.
Priority 5: Improve human resource policies to support recovery in the workplace.

IV. INTRODUCTION

A. OUR GEOGRAPHIC COMMUNITY OF FOCUS

The Roanoke Metropolitan Statistical Area (MSA) is home to almost 270,000 people (52% female persons) and includes four counties (Botetourt, Craig, Roanoke, and Franklin) and two cities (Roanoke and Salem). [1-7] Over 12% of the population are considered to be in poverty, and the median household income for the area is over $5,000 less than the national average. [1-7] Within the Roanoke region, approximately 26% of residents have attained a college degree and 20% of the population is aged 65 years or older. [1-7]

B. STATEMENT OF THE PROBLEM IN THE ROANOKE VALLEY



Underscored in the recent book, "Dopesick" [8], Southwest Virginia's Roanoke Valley, like many rural and neighboring Appalachian communities, continues to experience the devastating consequences of **substance misuse** and **substance use disorder** (SUD), including **opioid use disorder** (OUD).

As revealed by key indicators such as overdose death rates, overdose emergency department visits, incidents of HIV and Hepatitis C, and Neonatal Abstinence Syndrome (NAS) rates, the Roanoke Valley experiences significantly higher negative health effects on most indicators relative to overall state averages. For instance, according to the Virginia Department of Health (VDH) [9], in 2017, Roanoke City, the area's urban center, reported a prescription opioid overdose mortality rate of 13.0 compared to the statewide rate of 4.6 (per 100,000 Virginia residents).

Between 2016 and 2017, Naloxone use rates were significantly higher in the City of Roanoke at 117.4 per 100,000 population than the state rate [10].Incidence rates of non-fatal overdoses have also increased. Between 2017 and 2018, there was a 71.5% increase in Naloxone administration by EMS in Virginia. The case rate of Hepatitis C (an infectious disease often associated with intravenous drug use) in Roanoke City is three times the statewide case rate. [9] The most current (2018, see Table 1) VDH overdose death rates

and emergency department visits and NAS data from the major counties that comprise our Roanoke Valley MSA target community include the following [11]:

TABLE 1: ROANOKE VALLEY MSA IMPACT INDICATORS 2018

Roanoke Valley MSA Major Counties	Overdose Deaths (Death Rate) per 100,000 Residents	Overdoses per 10,000 ED Visits	NAS rates per 1,000 Births
Botetourt Co.	9 (27.0)	48.0	9.4
Craig Co.	0 (0.0)	46.8	0.0
Franklin Co.	17 (30.3)	51.1	22.5
Roanoke Co.	17 (18.1)	71.2	14.5
Roanoke City	48 (48.0)	71.2	14.3
Salem City	6 (23.4)	71.2	11.7
Virginia, overall	*1,484 (15.0)*	*42.1*	*7.4*

Importantly, though these statistics are troubling, several jurisdictions have seen some improvements between 2015-2018. The overdose death rates per 100,000 residents in **Craig County** decreased by 19.4%; **Franklin County** decreased by 5.3%; **Roanoke City** decreased by 32.9%; **Salem City** decreased by 16.7%. While these data provide a partial view of the consequences of and responses to the problem, the Roanoke Valley is sorely lacking data that could lead us more quickly to more effective solutions.

C. THE ROANOKE VALLEY COLLECTIVE RESPONSE TO THE OPIOID AND ADDICTION CRISIS

Joining forces across the Roanoke Valley to tackle the opioid and addiction crisis, the Roanoke Valley Collective Response (RVCR) **mission** is to *re-chart the course of substance use disorder in our community—not only preventing but ensuring that there are always pathways to healthy and sustainable living for those affected by addiction.*

Based on a collective impact model [12, 13, 14] the RVCR uses a multi-sector approach to the complex social problems around OUD/SUD and misuse, with meaningful engagement of community members in new ways than previously tried. A hallmark of this model is eliminating effort duplication while enhancing impact through extensive networks of collaboration and high communication. [13] Collective impact models are different from conventional coalitions, which often lack shared measurement of impact and the infra-structure to forge true alignment, accountability for results, and sustainability. The RVCR provides a vehicle for individuals and organizations to work together to develop and adopt new solutions that best fit our community's needs. [13]

The RVCR meets the required tenets of an effective collective impact model by facilitating: (1) a **common agenda** for change, including a shared understanding of the problem across members and member organizations and a jointly defined approach to solving it; (2) member agreement to track progress, collect data, and measure outcomes consistently across member organizations to ensure **shared measurement** of impact and continuous improvement; (3) a **plan of action** (blueprint) that defines and coordinates **mutually reinforcing activities** such that each organization does what it does best, while identifying new ways to work together; (4) transparent **systems of continuous communication** across the members and to the general public to build trust, ensure mutual objectives, and create common motivation; and (5) maintenance of a **backbone organization, through the Bradley Free Clinic, Inc.,** dedicated volunteer staff with distinct skills to serve and sustain the entire Collective.

Launched in September 2018, the RVCR:

- Convenes **community influencers working together and spanning multiple sectors** to generate sustainable solutions to substance use disorder in our community.
- **Tackles the root causes** of the addiction crisis by influencing changes in policies, practices, social support, cultures and norms, and the physical environment.
- Combines **evidence-based practices with local insight** and personal stories to recommend, develop, and implement solutions related to **prevention, treatment, crisis response, recovery, and child and family support.**

D. LEADERSHIP AND STAKEHOLDERS

The RVCR is governed by a co-chaired, 10-member steering committee. Committee members include the following:

CO-CHAIRS

- Kimberly Horn, EdD, Scientist/Professor, Fralin Biomedical Research Institute, Virginia Tech*
- Janine Underwood, Executive Director, Bradley Free Clinic*

MEMBERS

- Christine Baldwin, CPRS, Project Director, HOPE Initiative*
- James Chapman, Roanoke County Police Department
- Lee Clark, CEO, Rescue Mission of Roanoke*
- Nancy Hans, MEd, Executive Director, Prevention Council of Roanoke County*
- Cheri Hartman, PhD, Grant Project Director, Carilion Clinic*
- Robert Natt, Partnership and Business Development Director, Vinod Chachra IM-PACT Lab, Radford University*
- Amy Pierce, Healthy Minds Program Coordinator, Western Virginia Regional Jail
- Karen Pillis, MS, Director of Mental Health Services, Family Services of Roanoke Valley (Ex-officio)

*Founding members

The RVCR work to date also was facilitated by Jill Pritts, a 1-year VISTA volunteer, who served as a program assistant January 2019-January 2020.

Central to RVCR's operations are five ongoing Working Groups **(Prevention, Treatment, Child and Family Support, Crisis Response and Connection to Care, Recovery.)** A sixth group, Harm Reduction, was a time-limited task force that achieved its outcomes to help Roanoke achieve status as one of Virginia's Comprehensive Harm Reduction sites (Council of Community Services Drop-In Center). Each group is led by a Steering Committee member. The names of all working group members and their affiliated organizations (to date) are included in Appendix 1.

EARLY SUCCESSES

5 WORKING GROUPS

- PREVENTION
- TREATMENT
- CHILD-FAMILY
- CRISIS RESPONSE & CONNECTION TO CARE
- RECOVERY

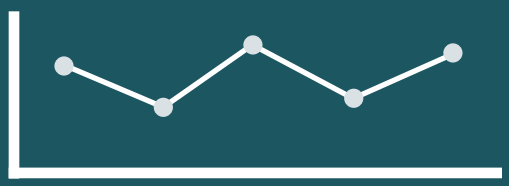
8+ SECTORS

GRANT FUNDING
SECURED

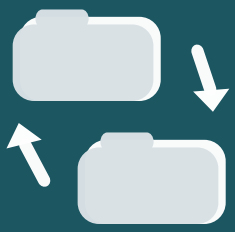
ENGAGED STAKEHOLDERS

280 INDIVIDUAL STAKEHOLDERS

130 ORGANIZATIONS



ONGOING ASSESSMENT
ASSET-GAP ANALYSIS



DATA SHARING

COLLABORATIVE BLUEPRINT DEVELOPMENT SUBMITTED

6+ JURISDICTIONS
ROANOKE CITY, ROANOKE COUNTY, SALEM CITY, VINTON, BOTETOURT COUNTY, & ALLEGHANY COUNTY

E. EARLY SUCCESSES

1. **High commitment from community stakeholders.** Finding rapid success through a collective impact model, the RVCR holds standing monthly meetings (2nd Wednesday of each month). Meetings have been held according to this schedule since September 2018, averaging more than 60 members across meetings. Total individual membership is 260 (as of this report).

2. **Sustained working groups.** The RVCR operationalized five Working Groups: **Prevention, Treatment, Child and Family Support, Crisis Response and Connection to Care, Recovery.** The highly engaged groups meet during most of the monthly stakeholder meetings and outside of the monthly meetings. The purpose of the working groups is to assess and discuss community needs and develop recommendations by analyzing existing data and potential resources serving both active and potential individuals with OUD/SUD and affected family members. The names of all working group leaders, group members, and their affiliated organizations (to date) are included in Appendix 1.

3. **Conducted asset mapping.** The RVCR stakeholders, led by the Steering Committee, conducted an interactive multi-session Asset Mapping to provide information about the strengths, resources, and gaps in our community along the continuum of care for OUD/SUD. The purpose was to uncover solutions and inform the Blueprint recommendations. The strengths and resources were inventoried and depicted in grids and graphics, allowing stakeholders to more easily think about how to build our initial recommendations. Overall, the process proved to be RVCR's first major step toward community stakeholder engagement and ownership in the problem and solutions.

4. **Initiated a Blueprint for Action.** With support by local government officials, the RVCR was charged to initiate the present Blueprint providing local officials and other leaders and community members with community-driven, evidence-based recommendations for abating the opioid and addiction crisis in the Roanoke Valley.

5. **Established a task force to mediate discussions to advance a comprehensive harm reduction program.** Steering Committee members formed a task force, alongside law enforcement and area service providers (including the Council of Community Services Drop-In Center leadership), to negotiate terms to move forward with a statewide application to fund a comprehensive harm reduction program for the Roanoke Valley. Negotiations led to a successful application from the Council of Community Services Drop-in Center, and the new program (one of four other authorized sites in Virginia), including a mobile unit, is underway.

6. **Established the RVCR logo and website.** See: https://www.rvcollectiveresponse.org.

7. **Influenced successful grant funding for local agencies.** Citing the RVCR as a major factor in winning the grants, three local agencies **received federal funding** (FY 2019) for activities aligned with the Blueprint and totaling nearly $1.6M. These include

- Family Service of Roanoke Valley, OMB No. 1121-0329, "OVC FY 2019 Enhancing Community Responses to the Opioid Crisis: Serving Our Youngest Crime Victims". -$750,000.
- Total Action for Progress received funding from U.S. DEPARTMENT OF LABOR Employment and Training Administration. Re-Employment Support and Training for the Opioid Related Epidemic, RESTORE Grant Program, (CFDA) NUMBER: 17.700, for RESTORE Southwest Virginia (Program will help women impacted by opioid epidemic obtain or advance in employment). -$500,000.
- Virginia Tech, Roanoke Valley Hope Initiative, and Virginia Harm Reduction Coalition received funding from Center for Drug Policy and Enforcement Combating Opioid Overdose through Community-level Intervention Grant Program (CFDA), Number: 95.007, for Connection to Care Program for Crisis Response and Service Referral Coordination. -$300,000.

8. **Facilitated agreements with two major data-sharing platforms.** Aligned with the Blueprint recommendations, the Roanoke Valley has official agreements in place with ODMAP and the Commonwealth's Framework for Addiction Analysis and Community Transformation (FAACT), described below:

FAACT PROJECT

- Facilitated by the Virginia Department of Criminal Justice Services (DCJS) and Qlarion, Inc.
- Combines data sets across a variety of different government agencies, law enforcement agencies, and local organizations including healthcare and social services, public safety and corrections, drug courts, and community coalitions.
- Allows for deeper analysis of data to generate insights about the contributing factors to opioid abuse and the most effective ways for communities to respond.

ODMAP PROGRAM

- Facilitated by the High Intensity Drug Trafficking Area (HIDTA)
- Near real-time overdose surveillance tool for first responders to track location, date/time, fatality status (fatal or non-fatal), and dosage of naloxone administration.
- Overdose spike notification system enables public health and safety officials to mobilize a response to affected areas including treatment and prevention strategies.

Overdose Detection Mapping Application Program (ODMAP) is a recommended data platform that facilitates interagency cooperation through information sharing. It provides near real-time surveillance of known and suspected overdose events at local levels. By linking first responders on scene to real-time mapping capabilities, ODMAP provides overdose surveillance data across jurisdictions to support the efforts of public safety and public health to mobilize a response to an overdose spike. ODMAP offers the ability to collect both suspected fatal and non-fatal overdoses, in real time, allowing us to share data across jurisdictions and to mobilize cohesive and collaborative responses. After extensive discussions with ODMAP, at the time of this writing, **three** Roanoke Valley jurisdictions are using ODMAP. [15]

Framework for Addiction Analysis and Community Transformation (FAACT) RVCR helped to secure an agreement with the Commonwealth of Virginia (Governor's Office) for the Roanoke Valley to serve as a pilot community for a systematic data-sharing platform through the FAACT project. Spearheaded by the Virginia Department of Criminal Justice Services (DCJS), FAACT brings national, Commonwealth, and local data resources to bear in addressing SUD and addiction in Virginia. Agencies and organizations that participate in the FAACT project will have access to the type of cross-functional, high-impact data and analysis needed to drive their critical decisions as they respond to the opioid crisis and other complex challenges related to OUD/SUD. The project focuses on four key processes in developing data assets for use in making data-driven decisions: *Comprehensive Data Governance; Secure Data Sharing; Self-Service Analytics; and Predictive Capability.* The FAACT project engages with regional, Commonwealth, and federal data stewards and subject matter experts to develop tools and make data resources available for analysis and decision-making. Beginning with a successful pilot deployment in the Northern Shenandoah Valley region around Winchester, VA, the FAACT project has begun incorporating Roanoke Valley into the project and will eventually encompass every region of Virginia. As part of Roanoke's selection as a pilot community for FAACT, we will be working closely with the facilitating company—Qlarion, Inc.—as contracted by the Commonwealth, at no charge to Roanoke. FAACT will design, implement, and optimize a shared data platform for mission-driven 'big data' analytics across multi-sector organizations and local government agencies. This platform can also incorporate data collected through ODMAP. Through shared data, Roanoke can better organize massive amounts of data and use it to understand and provide tailored solutions faster. The specific roles of FAACT are highlighted in the recommendation sections. [16]

F. PURPOSE OF BLUEPRINT

Stemming from extensive stakeholder input through (a) the RVCR asset mapping on the area's strengths and gaps in services, (b) examination of area public policies and practices, and (c) working group discussions, the Blueprint purpose is to provide a 3-year

plan of action that **identifies the greatest areas of need and offers innovative and evidence-based solutions tailored to our community**. These recommendations aim to facilitate additional actions that move the Roanoke Valley toward a comprehensive and sustained response to opioid use disorder specifically and OUD/SUD more broadly.

Working across our RVCR multi-sector stakeholders, the RVCR identified five strategic areas to focus our recommendations, all of which depend upon and interact with one another across a continuum of care:

Prevention, Treatment, Crisis Response, Recovery, and Child and Family Support. Each of these groups was informed by input from a broad range of experts, including individuals with lived experience in recovery and family members personally affected by SUD. With a 3-year time frame, the Blueprint details evidence-based, community-driven recommendations to abate the addiction crisis in the Roanoke Valley.

The target **audience** for the Blueprint includes Roanoke Valley local government officials and other high influencers and decision makers. As importantly, a critical audience is the RVCR stakeholders whose "on the ground" support and continued commitment will translate the proposed strategic priorities into action. This includes **health care providers, law enforcement, criminal justice, emergency services, prevention specialists, harm reduction specialists, policy makers, researchers, and perhaps most significantly individuals in recovery or actively struggling** with SUD.

V. PROCESS FOR BLUEPRINT DEVELOPMENT

Following the "outcomes-based prevention" best practices planning approach of the Substance Abuse and Mental Health Services Administration (SAMHSA), the Blueprint began with an assessment of needs and consequences of Roanoke's SUD crises and then worked backwards to recommendations. [17] More specifically, the Blueprint development process dovetailed the general RVCR development phases. As shown in Table 2, the Blueprint evolved in four distinct phases, through dedicated attention to governance and infrastructure, strategic planning, community engagement, and evaluation. It is important to note that Phase IV will be realized once we move into Blueprint implementation.

TABLE 2: BLUEPRINT DEVELOPMENT PROCESS

	Phase I (Pre-Launch)	Phase II (Initiating Action)	Phase III (Organizing for Impact)	Phase IV (Implementing and Sustaining Impact)
Governance & Infrastructure	Convened key community leaders and stakeholders.	Identified champions to form a cross-sector steering committee; identified chairperson/s.	Established infrastructure (backbone function, regular meeting structure, transparent communication methods, thematic work groups, human capital, and collaborative processes).	Facilitate collaboration and communication within and across working groups; refine structure as needed.
Strategic Planning	Held dialogue about priority issues, community context, and available resources.	Applied asset mapping to understand the landscape of service delivery across the continuum of care and OUD severity; used the data to make case for need for collective plan of action (Blueprint); began to frame the common agenda.	Created common agenda through Blueprint development (common goal and strategic priorities).	Support implementation (alignment of partners and resources to goals and strategies) to achieve Blueprint recommendations.
Community Involvement	Facilitated community outreach to engage a diverse group of individuals to participate.	Engaged stakeholders in identifying priority areas of focus (prevention, treatment, etc.)	Engaged stakeholders in thematic areas via work groups and built public will around common agenda; used small working groups to solicit ongoing input and blueprint development; set monthly stakeholder meetings.	Continue engagement and advocacy to support Blueprint recommendations.
Evaluation & Improvement	Determined if there is consensus/ urgency to move forward.	Analyzed Asset Mapping data and ongoing input from stakeholder working groups to identify key issues and gaps.	Established areas of need for shared metrics (indicators, measurement, and approach) as part of the working groups. Conducted community interviews.	Collect, track, and report progress toward Blueprint outcomes (to learn and improve) through partnership with ODMAP and FAACT .

VI. RECOMMENDATIONS

The following 22 recommendations are captured in five critical areas of the continuum of care as identified by the RVCR stakeholders: **Prevention, Treatment, Connection to Care, Child and Family Support, and Recovery.** The recommendations are based in evidence and local insights to identify critical steps and actions that stakeholders can take toward putting the recommendations into action. The recommendations are not weighted or ranked. Collectively, we must apply these recommendations to enhance our protective factors while reducing our risks.

There are many promising approaches being implemented in the Roanoke Valley, and it is difficult to point out all of those efforts. Where recommendations underscore "model programs," they are for the most part tested models successfully implemented in other communities that might be considered a best practice for Roanoke. The evidence base for these recommendations is supported by scientific literature published within the past five years. Citations are provided within the narrative, but also are presented by priority for easy reference.

The RVCR does not have the broad authority to implement the present recommendations, but the intent of the Blueprint is to **influence those who have the authority to distribute resources and implement these recommended priorities.**

PREVENTION AND EDUCATION

DEFINING: Universal prevention is defined as a means to prevent the onset of substance misuse or dependence before it begins, generally geared to general populations (e.g., programs for elementary school children). Selective prevention includes tailored services focused on higher risk populations or groups requiring specialized information (e.g., individuals dealing with chronic pain or children of parents with SUD). Indicated prevention involves intervening with people who have already been affected by SUD, building resilience or slowing or preventing consequences from becoming worse (e.g., individuals in recovery or family members).[18]

PREMISE

Prevention—universal, selective, and indicated—is critical at every stage of addressing the opioid and addiction crisis, from prevention of first use through dependence, relapse, and overdose. A range of data-driven prevention efforts is needed across the full severity spectrum. While the Roanoke Valley has an array of active prevention-based programs, further work is needed to unify and enhance existing programs to offer prevention in alignment with SAMHSA recommendations. [17] Specifically, agencies should apply "outcomes-based prevention" as a best practice following SAMHSA's "Data-Based Planning for Effective Prevention." A coordinated proactive approach that prevents SUD is a necessary, sustainable, and cost-effective means to improving individual and general population health. It is also an important means to reaching populations at greater risk of OUD/SUD-related events due to contextual, interpersonal, or individual risk factors, such as neighborhood disorder, poverty, family instability, and trauma. [17]

RECOMMENDED PRIORITIES

Priority 1: : Use data-driven approaches to identify at-risk populations within the Roanoke Valley MSA with greatest prevention service needs.

Priority 2: Provide prevention education across a range of sectors emphasizing the need for and benefits of prevention, including prevention efficacy and economic benefit.

Priority 3: Apply the "Seven Strategies for Community Change" to implement new and expand existing universal, selective, and indicated prevention programs across the spectrum of severity and diverse populations.

Priority 4: Promote safe and effective pain management practices.

PREVENTION PRIORITY 1

Use data-driven approaches to identify at-risk populations within the Roanoke Valley MSA with greatest need for prevention services. [19, 20, 21]

ACTION ITEMS FOR PRIORITY 1

a. Assess centralized data to identify geographically the high-risk communities with greatest need for prevention services.

- Engage well-established 'big data' partners, namely ODMAP and FAACT (described in Part 8), to set criteria and to confirm and visually map high-risk communities.
- Educate potential partner agencies on the value of data and data sharing.
- Establish list of critical partner agencies across sectors and the necessary data.
- Utilize FAACT and ODMAP platforms of pooled data from public (e.g., local police departments, education systems, and municipal offices) and private (e.g., healthcare systems) sectors to detect "hotspots" of OUD/SUD-related events (e.g., overdose, hospitalization, arrests) across time and by geographic location.
- Continually assess gaps in data sources and need for additional community partners.
- Engage the RVCR leadership to cultivate relationships with data partnering entities.

MODEL PROGRAM OR BEST PRACTICE OPTION

As a best practice, we recommend two platforms that are compatible, state of the art, and free of charge for the Roanoke MSA. Detailed in the Blueprint introduction, ODMAP is a recommended data platform that facilitates interagency cooperation through information sharing by providing near real-time surveillance of known and suspected overdose events. By linking first responders on scene to real-time mapping capabilities, ODMAP provides overdose surveillance data across multiple jurisdictions to support the efforts of public safety and public health and to mobilize responses to overdose spikes. As part of the Blueprint planning, Roanoke MSA is already participating in both of these services.

SUSTAINABILITY NEEDS FOR PRIORITY 1

- Successful implementation of Priority 1 requires sustained data collection and maintenance, including continual collection of agency data and continual updates to the database.
- Public education, consistent communication from local leadership, and meaningful sharing across partner agencies will promote and maintain buy-in.

MODEL PROGRAM OR BEST PRACTICE OPTION

Using data on outcomes (e.g., overdose, hospitalization, arrests) to inform prevention can be applied using SAMHSA's "outcomes-based prevention" framework. Outcomes-based prevention begins with an assessment of negative outcomes of OUD/SUD then work backward to identify causes. [17]

PREVENTION PRIORITY 2

Provide prevention education across a range of sectors emphasizing the need for and benefits of prevention, including prevention efficacy and economic benefit. [22, 23, 24, 25]

ACTION ITEMS FOR PRIORITY 2

a. Engage local prevention agencies to develop data-driven, tailored education programs/materials for atypical audiences, focusing first on the following sectors: healthcare and insurance companies, law enforcement, local businesses, faith communities, and government. Findings from FAACT database analysis should be used to inform and supplement materials development.

- Generate data-driven prevention education briefs for local and state legislators and other Roanoke Valley government officials, to be distributed by RVCR. Materials development should be accompanied by a dissemination plan.

b. Implement multi-agency campaigns across the Roanoke Valley to increase public awareness of the risks of opioid misuse and OUD and importance of prevention.

MODEL PROGRAM OR BEST PRACTICE OPTION

SAMHSA recommends data-driven prevention planning as ideal. There are many organizations and coalitions across the Roanoke Valley MSA using these planning strategies, including the longstanding (over three decades) of Strategic Prevention Framework (SPF) trained coalitions. Examples include: Prevention Council of Roanoke County, Roanoke Area Youth Substance Abuse Coalition (RAYSAC), Craig Prevention Planning Team, Botetourt Prevention Coalition, Salem Prevention Planning Team, and Roanoke Prevention Alliance, among others. These groups can be key influencers to adopt this strategy area-wide. They also can provide guidance and mentorship for other organizations pursuing data-driven planning.

MODEL PROGRAM OR BEST PRACTICE OPTION

Multi-agency campaigns offer high reach and impact. We will select one or two campaigns to highlight within the Blueprint. Examples include **"Generation Rx**" and RAYSAC's **"Be in the Picture" campaign**. Both of these could be easily be adapted for the Roanoke Valley.

PREVENTION PRIORITY 3

Apply the "Seven Strategies for Community Change" to implement new and expand existing programs across the spectrum of severity and across diverse populations. [26, 27]

COMMUNITY ANTI-DRUG COALITIONS OF AMERICA (CADCA)

CADCA recommends seven strategies to guide prevention programming (universal, selective, and indicated prevention). [26, 27] As such, all programming actions should continually consider providing relevant information, enhancing skills, providing support, enhancing access/reducing barriers, changing consequences, changing design/environment, and modifying policies as needed.

ACTION ITEMS FOR PRIORITY 3

a. Use data compiled by FAACT to estimate prevalence of opioid-related disparities, within targeted geographic communities, by age, race/ethnicity, gender, sexual identity, and SES. To the extent possible, this should include overdose, arrest, hospitalization, and other drug-related events in the Roanoke Valley. This information should be communicated in a variety of formats to stakeholders.

b. To change consequences (incentives) and remove cultural barriers, prevention services must be sensitive/adaptable to diverse population needs and distinct historical, political, and cultural contexts that affect how prevention services are perceived and used. For example, the history of criminalizing OUD/SUD and misuse within Black communities contributes to community distrust of prevention and treatment services and to poorer treatment outcomes among Blacks with OUD. [28] Among Hispanics in the U.S., linguistic barriers, distrust of the legal system, and experience of racial discrimination in health care settings are associated with decreased use of dependence-related services and with poorer treatment outcomes. [29, 30] Finally, LGBTQ youth and adults have a disproportionately high prevalence of OUD coupled with trauma-related mental illness, calling for educational and treatment programs that are specific to the needs of LGBTQ populations. [31] Of note, the programs must also be taken into the communities or locations with ease of access.

MODEL PROGRAM OR BEST PRACTICE OPTION

The Roanoke Valley implements a range of evidence-based prevention programs. It is important to ascertain, however, that these programs are working for our community and specifically for priority populations. SAMHSA recommends ongoing evaluation that results in data-driven prevention planning. [18]

c. Administer a formal needs assessment to identify existing or planned prevention programs, across the Roanoke Valley MSA, to inform shared and expanded valley-wide prevention efforts, to determine where policy changes are needed, and reach.

- A number of promising prevention initiatives have been implemented in the Roanoke Valley and neighboring communities; however, these programs have been largely uncoordinated and limited in scope/populations served. Sharing or partnering with existing community programs, especially those that serve marginalized high-risk groups, could significantly extend Roanoke's prevention reach.

MODEL PROGRAM OR BEST PRACTICE OPTION

Refer to guiding principles in the Centers for Disease Control and Prevention (CDC)'s "**Evidence-Based Strategies for Preventing Opioid Overdose**" – "Nothing about us without us." Prevention strategies need to consider perspectives of those affected by opioid use disorder.

d. Identify and disseminate prevention programs that address opioid use and misuse among older adults to extend support across the lifespan.

- While youth-centered programs are integral to preventing drug misuse and dependence in early life and young adulthood, the need to prevent dependence among older adults (defined as age 60+), particularly those prescribed opioid medications for chronic pain, is often overlooked. The aging experience has unique health-related issues and tends to include more frequent contact with providers due to chronic health conditions. Older adults are also less likely to question prescribing decisions made by a provider and often play a less active role in developing their own treatment plans. Educational programs for older adults should promote self-efficacy when making health- and treatment-related decisions, particularly in relation to prescription drug use. Some area agencies are already providing these services. Best practice options should be explored as routine practice for organizations that serve older adults.

e. Establish thematic Speakers Bureaus to ensure that people in recovery and families affected by dependence have increased opportunities to be represented as speakers, educators, and decision-makers within prevention programs. This would enhance knowledge and skills across the community.

- Prevention programs that enable participants to connect with people who are directly affected by dependence foster communication, increase community cohesion, and reduce the stigma of substance misuse and dependence. [25] Further, representation of people in recovery and affected families within decision-making bodies also ensures that program development is informed not only by data but also by personal narratives that reflect larger community issues. While personal experiences with substance misuse and dependence are unique for every individual, inclusion of these perspectives aids in developing programs that are responsive to the needs of affected communities with diverse skills and knowledge. This could be managed through the RVCR.

SUSTAINABILITY NEEDS FOR PRIORITY 3

- Sustained coordination and intentional communication must occur across agencies to develop and expand prevention programs. However, because of reliance on grant funding, sustainability will require staff who can prepare and secure grants from local, state and federal sources.

PREVENTION PRIORITY 4

Promote safe and effective pain management practices. [32, 33, 34]

ACTION ITEMS FOR PRIORITY 4

a. Assess the effectiveness of Virginia's adoption of prescribing regulations for opioids, specifically as it impacts opioid prescribing in the Roanoke Valley.

- One underlying cause of the opioid crisis is the increase in opioid prescriptions for pain. [35] Virginia adopted new prescribing regulations for opioids and buprenorphine in 2018. [36] Using data compiled in the FAACT database, it is possible to assess whether opioid-related events have changed since Virginia's adoption of stricter prescribing regulations in August of 2018. In addition, if prescribing data is available in the database, evaluation can determine whether there has been meaningful change in opioid prescribing since adoption of the new regulations.

b. Identify whether further policy change in prescribing is needed in the Roanoke Valley.

- Findings in Action Item 1 would determine whether additional changes to prescribing regulations are needed to more effectively prevent overprescribing of opioids in the Roanoke Valley.

c. Implement or expand education to raise provider and patient awareness of (a) safe prescribing practices and (b) alternatives to opioid prescribing for chronic pain management. Mandated education, via stated internal policies, should be explored for high-volume opioid prescribing specialties (e.g., family medicine, internal medicine, orthopedics, and dentistry). [37]

MODEL PROGRAM OR BEST PRACTICE OPTION

A pilot program from Canada called "Opioid Self-Assessment Package" increased adherence to the Canadian Opioid Guideline among family physicians. The program uses basic educational and self-assessment tools to provide prescribers with feedback on their current knowledge and practices. Evaluation suggests potential use in the Roanoke Valley for opioid quality improvement tools in primary care settings. [38] Of note, Carilion Clinic is currently conducting a speaker series titled "Treating Pain: Beyond Medication" and targeted toward patient education, which may be generalizable to other settings. Ideally, programs for providers and patients are jointly offered in a given setting.

d. Implement patient screening protocol before opioid prescribing to assess patient risk of opioid misuse.

e. Implement and expand existing prescription take-back programs so that they are available on an ongoing basis. Many area organizations and agencies are already engaged in take-backs; their lessons learned should inform others.

MODEL PROGRAM OR BEST PRACTICE OPTION

Screening, Brief Intervention, and Referral to Treatment (SBIRT) has demonstrated effectiveness for SUD populations; SBIRT is being applied at Carilion in the Orthopedics Department with a documented impact on modifying physician's care of patients identified as at moderate to high risk for opioid misuse using the Opioid Risk Tool. [39]

SUSTAINABILITY NEEDS FOR PRIORITY 4

- Successful completion of Priority 4 requires sustained data gathering and maintenance, as well as continual education of providers and patients in medical settings.
- Local and state "champions" and advocates of prescribing practice policy changes are needed.

TREATMENT

DEFINING: Treatment is defined as a services array, provided by a range of professionals including peer recovery specialists, with a primary focus on treating SUD, providing both acute stabilization and ongoing treatment.

PREMISE

The view of substance misuse and dependence as a biopsychosocial and spiritually influenced disease process undergirded the establishment of Treatment Priorities. In Virginia, the Addiction and Recovery Treatment Services (ARTS) Initiative directed policy changes that used the American Society of Addiction Medicine (ASAM) continuum of care as its framework. Reimbursement for OUD/SUD treatment services was increased to improve parity, making it financially feasible for treatment providers to admit Medicaid patients. Reimbursement became available for the first time for services such as care coordination and peer recovery specialist coaching. These policy changes transformed the landscape of patient access to treatment, outlining a continuum of care that includes early intervention (for example, SBIRT); outpatient services (therapy and/or medication-assisted treatment) (ambulatory care); intensive outpatient services/partial hospitalization; residential/inpatient care (24 hour "clinically managed" care)/medical monitoring; and inpatient care (24-hour medically managed care with OUD/SUD credentialed physicians). Coupled with Medicaid expansion, which became effective on January 1, 2019, the pathway was laid for exponentially more Virginians to have access to the full continuum of care – potentially. Unfortunately, the treatment community capacity in the Roanoke Valley is not currently able to increase services to meet this full potential.

Upon examination of the RVCR asset mapping of resources (described in part I) by stakeholders, perceptions revealed that the majority of treatment services for persons with a moderate to severe level of an OUD fall into the outpatient category (i.e., public and private, Medicaid and commercial payer-based, medication-assisted treatment, and/or therapeutic). Few residential treatment programs are available in the Roanoke Valley or throughout the state. When one considers residential treatment programs that accept Medicaid or the uninsured, this number drops to two that have been identified at the current time. Outpatient programs report waiting lists indicative of insufficient capacity for counselors trained in OUD/SUD treatment and not enough buprenorphine-waivered prescribers who work to their capacity for treatment. Stakeholders also report a shortage of intensive outpatient/partial hospitalization services. The following recommendations are intended to address the gaps that persist along the continuum of care in the Roanoke Valley MSA:

RECOMMENDED PRIORITIES

Priority 1: Improve compatibility in data systems across the medical, planning, and emergency response sectors to enable more effective data sharing related to prescriptions and prior care.

Priority 2: Increase interagency collaboration to ensure that best treatment practices are available and applied across the continuum of care.

Priority 3: Strengthen continuum of care and transitions in care to reduce gaps and interruptions in treatment.

Priority 4: Initiate quick-response treatment options.

TREATMENT PRIORITY 1

Improve compatibility in data systems across the medical, planning, and emergency response sectors to enable more effective data sharing. [40, 41]

The treatment workgroup placed high value on accessing data, ranging from ODMAP real time overdose data (linked with GIS mapping) to public health data, such as the number of overdoses treated in the Emergency Department and the number of revivals versus deaths. We identified the need for a central repository of data on what treatment facility has how many slots and beds and how many are available at the time of a referral. The ability to share information across sectors will provide a wider range of local data that can inform policy decisions. Sharing Personal Health Information (PHI) across systems would improve coordination of care and continuity of care, which is grossly undermined by the absence of shared data even in urgent situations in the ED. Finally, shared data may aid with research, community awareness, and timely interventions. Quality Improvement studies of service programs could be analyzed by researchers to determine which treatment services are most effective for whom and when.

ACTION ITEMS FOR PRIORITY 1

a. Adopt the ODMAP system locally in each jurisdiction in our area.

- Follow up sending peer-recovery specialists to "areas of spikes."
- Use data to initiate a warm handoff that is more likely to be successful if informed by relevant PHI and by bed availability/open slots data.
- Access to data for probation officers – link treatment providers more effectively with court system through shared data and releases and training for probation officers.

b. Develop universal Business Associates Agreements (BAAs) for database sharing.

- Written to meet HIPAA requirements and 42 Code of Federal Regulations (CFR) Part II for having real-time information on the inventory of services, beds, slots for each level of care and on patient assessment
- Look at lessons learned from Emergency Medical Treatment and Labor Act (EMTALA) policies (derived from Creigh Deeds case)

c. Create a hub or central up-to-date database of available resources (open slots/beds).

d. Conduct a capacity study of the slots/beds available at various facilities to better establish a baseline and identification of treatment service gaps along the continuum of care.

MODEL PROGRAM OR BEST PRACTICE CONSIDERATION

As demonstrated by the use of FAACT 's data-sharing platform in Winchester, VA, massive data collection gives us the tools to better understand the complex issues our Roanoke Valley treatment organizations address. With better understanding through data, we can hone in on ways to improve the impact of our interventions. Winchester's experiences can guide our community as we explore the real-life utility of big data.

SUSTAINABILITY NEEDS FOR PRIORITY 1

- Ongoing data collection and analytics via FAACT and ODMAP may require grant funding to maintain the shared data platform and to sustain the action plan for the Roanoke Valley, depending on state-level commitment.
- Public education, consistent communication from local leadership, and meaningful sharing across partner agencies will promote and maintain buy-in.

TREATMENT PRIORITY 2

Increase interagency collaboration to ensure that best treatment practices are available and applied across the continuum of care. [42,43]

The ASAM Criteria [2013] emphasize that best practices in comprehensive assessment and treatment service placement require cross-agency collaboration to meet the complex needs of individuals struggling with a SUD. Multi-systemic coordination is needed to meet the co-occurring problems of legal entanglements, child welfare challenges, and housing and unemployment problems, as well as the likely medical and psychiatric comorbidities.

Our opioid crisis has been a stark reminder of the need for integration of mental health and SUD services, in particular. Communications across various systems must promote joint interdisciplinary treatment plans and after care. Collaboration would require sharing Personal Health Information across the agencies and clarifying roles in the mutual support for early identification, harm reduction, treatment, maintenance of sobriety, and sustaining recovery. Matching patients to the appropriate level of care and managing transitions among the levels of care increase the effectiveness of treatment and patient outcomes. [44]

Narrative input provided by Collective Response participants described many incidents of systems working at cross-purposes. For example, treatment is interrupted by incarceration for prior charges. Drug Court mandates discontinue treatment and exclude some evidence-based practices such as medication-assisted therapy. Incarcerated individuals whose progress while living in constrained circumstances is reversed as continuity of care (if provided while incarcerated) is derailed as the releasee faces lack of insurance, no access to treatment, and other factors that bar successful re-entry.

ACTION ITEMS FOR PRIORITY 2

a. Implement business agreements to achieve better cross-agency information sharing.

b. Establish collaborative teams including monthly meetings for creating coordinated plans of care.

c. Compose protocols for "warm" handoffs across agencies.

d. Train for cross-agency cooperation to facilitate coordination and referral processes and follow-up communication. [44]

e. Dedicate staffing to provide support services to enroll individuals in Medicaid expansion.

SUSTAINABILITY NEEDS FOR PRIORITY 2

- Alignment with area researchers to track outcomes to support accessing funds for sustaining collaboration and funding the staff needed to convene the teams, to track the outcomes, and to report on the results.

TREATMENT PRIORITY 3

Strengthen continuum of care and transitions in care to reduce gaps and interruptions in treatment. [45,46,21]

Transitions in care are times of vulnerability due to gaps in service provision, delays, inefficiencies, absence of accurate information, and interruptions in access to appropriate treatment.

Problems can arise from preauthorization requirements, lack of sober living after care, and other gaps in services along the continuum of care and from failures to plan adequately for a successful discharge. Untimely transitions into treatment after a referral is made or between levels of treatment dishearten the individuals seeking treatment and can unravel their willingness to get treatment. Interruptions and gaps in care can be fatal.

We emphasize that "one size does not fit all" and that a recovery-oriented, patient-centered health care community would offer the full range of the continuum of care with options available at each level that aligned with the individual's particular biopsychosocial and spiritual characteristics.

ACTION ITEMS FOR PRIORITY 3

a. Strengthen services along the continuum of care.

- Collect data for a capacity study of current availability of beds/slots in outpatient, intensive outpatient, and the various levels of residential treatment to establish a baseline and a prioritization plan for investing funds in program/facility development.
- Increase availability of intensive outpatient programming for treating all SUDs, not just OUD.
- Increase residential care options--especially residential programs that accept Medicaid, include medication-assisted treatment, and provide care for the uninsured. (The only local residential program that allows medication-assisted treatment in Roanoke Valley is Bethany Hall for women).
- Existing long-term residential care for SUD disease management cannot manage medically complex patients, so medically complex patients are strictly in short-term inpatient units. Home-based medical supports and longer-term inpatient care options are needed.

b. Expand access to treatment in jails including trauma-based care, medication-assisted treatment (going beyond naltrexone, using injectable formats such as Sublocade to avoid diversion).

c. Collaboratively establish early identification, harm reduction, and diversionary programs.

- SBIRT: Screening, Brief Intervention, Referral to Treatment across systems
- Comprehensive syringe services that screen for the medical sequelae such as Hep A, B, and C and HIV and provide treatment engagement strategies including peer recovery coaches, triage to the full continuum of care, and case management for addressing the social determinants of housing, unemployment, child welfare, and legal entanglements, and education on avoiding infection and disease worsening.
- Naloxone in combination with REVIVE! training and made available free of charge.
- Determine extent of use of Naloxone.

- Diversionary programs in local prosecutor's offices linking offenders identified as having a SUD with treatment professionals, who can collaboratively work with the legal system to identify the appropriate level of care and making it possible to avoid conviction by adhering to treatment.

d. More sober-living environments are needed for after care and post-release from incarceration to sustain recovery. The sober-living houses need better regulation and monitoring to ensure that sobriety is fostered and that active SUD leads to placement in a more appropriate setting.

e. Advocate for expanding the ARTS Initiative to include all forms of SUD to enable the use of interdisciplinary care planning teams and reimbursement for care coordination not currently available to private sector providers.

f. Drug Courts (both local and federal) need to work collaboratively with health care professionals to ensure placement options include the full continuum of care. This would include treatment professionals informing the mandated treatment plans such that medical consultation is built into medication-assisted treatment.

g. Provide the full range of OUD/SUD treatment services for incarcerated populations, going beyond naltrexone to other forms of medication-assisted treatment (injectable extended release forms for buprenorphine are now available: Sublocade); evidence-based group therapy programs can address any type of SUD, such as:

Post-release preparation and planning for the incarcerated and discharge planning for residential care would be more effective with access to a hub that houses a database of available after-care programs, facilitating transitions in care and supporting sobriety.

MODEL PROGRAM OR BEST PRACTICE CONSIDERATION

The Matrix model and emerging research supports addressing co-occurring problems. For instance, **START NOW** (a nationally available program administered through Carilion Clinic) is effective for reducing disciplinary problems alongside SUDs in young adults. Trauma-based therapy and cognitive behavior therapy are evidence-based therapies for the incarcerated population. SAMHSA has resources to guide the development of treatment programming for the incarcerated that can be adapted for the Roanoke Valley.

h. An urgent care center is needed to provide immediate access to compassionate care to address acute medical conditions that don't warrant Emergency Department services and to address the need for SUD services. See Priority Area #4 for details.

i. A 24-hour recovery/care center would provide a safe place for shelter and support for sobriety and linkages to care.

j. Emergency Departments (ED) staffed with physicians trained in SUD disease basics and on withdrawal symptom management, post-overdose protocols, SBIRT, OUD/SUD diagnostics, as well as staffed by peer recovery specialists and social workers trained for triage, would enhance care.

MODEL PROGRAM OR BEST PRACTICE CONSIDERATION

Types of evidence-based **ED-based programs** include a) SBIRT-trained staff to create pathways to treatment; b) Treatment referral bridges that provide collaborative, rapid access to treatment; c) Embedded peers in the ED. Notably, embedding peers in EDs has been found to significantly improve engagement in post-overdose treatment. A model for the nation, the Carillon Clinic model for an ED Bridge to Treatment program could be exported to other EDs to improve the percentage of overdose patients who get into treatment. A new Connection to Care project, co-developed by the RVCR and Virginia Tech (VT), provides referral services to the HOPE Initiative through points of contact with EMS, EDs, and the Virginia Harm Reduction Coalition. The program is under pilot evaluation.

k. Expanding detoxification services with immediate access to post-discharge care, eliminating delays or gaps in continuity of care, which can be fatal.

- Residential programs that include detoxification services are needed
- More residential programs that don't require detoxification and include MAT are needed. A vulnerability is created through detoxification as post-detox is the single most likely time for a fatal overdose, if the patient does not immediately access residential treatment.

l. Partner with area researchers to design and implement comparative effectiveness studies to determine what treatment services are most effective for which types of populations.

SUSTAINABILITY NEEDS FOR PRIORITY 3

- It is essential that advocacy be combined with an elevated level of community awareness. Collaboration mechanisms need to be instituted to achieve the efficiency and effectiveness that derive from avoiding duplication and reducing counterproductive cross purpose efforts. This is especially true in relation to coordinating law enforcement, court-ordered care programs, and services for the incarcerated and releasees with health care treatment providers and recovery supports.
- Advocacy with commercial payers, Medicaid, and Medicare to achieve adequate coverage for treatment along the continuum of care will help to ensure sustainability of a strengthened continuum of care.

***Note**: The Blueprint does not currently address the needs for youth treatment services. Few exist, and narrative input from Collective Response stakeholders indicated that even for current programs few referrals are made from area gatekeepers (e.g., schools, counselors, pediatric offices, Adolescent Health Centers). It is a concern that screenings are not being conducted. SBIRT training may be needed, along with educational outreach on the importance of early identification and referral into treatment for adolescents in our community. Recovery High Schools should also be considered.*

TREATMENT PRIORITY 4

Initiate quick-response treatment options. [26,47]

The need to provide immediate access to a medical setting (a walk-in clinic), where an individual can be treated with compassion and evaluated clinically and comprehensively for both urgent needs and longer-term needs. Individuals not requiring hospitalization also need immediate access to safe places with simple medical services to stay overnight.

ACTION ITEMS FOR PRIORITY 4

a. Establish "urgent care" clinics that remove traditional barriers to care (flexible access, walk in system with as long hours as possible; available regardless of ability to pay or insurance). These clinics would provide the following services:

- Access to assessment using the ASAM criteria for treatment placement for one's SUD.
- Screening for medical conditions (Hep A, B, and C, HIV, liver and kidney problems, infections in general.)
- Harm reduction services, prescribing and distributing Naloxone.
- On-site case management, therapy, and peer recovery coaching.

b. Create user-friendly ED units to triage patients for SUDs (e.g., embed peers, referrals to the Roanoke Valley HOPE Initiative, networks of collaborative care to facilitate rapid access to treatment, and offer take-home Naloxone kits).

MODEL PROGRAM OR BEST PRACTICE CONSIDERATION

Prescribing and providing free access in the ED to Naloxone can reduce overdose fatalities in communities (See also Priority 3). Studies show that ED providers are willing to prescribe take-home Naloxone and patients are willing to accept a take-home Naloxone kit and believe that the ED is an appropriate venue. [48]

SUSTAINABILITY NEEDS FOR PRIORITY 4

- Same as for Priority 3

CRISIS RESPONSE AND CONNECTION TO CARE

DEFINING: Crisis Response and Connection to Care (CRCC) is defined as a spectrum of strategies, including protocols and processes for overdose prevention and reversal, harm reduction, and coordinated responses and connection to OUD/SUD care. A CRCC workgroup goal is to facilitate dialogue leading to solutions that promote connections to treatment while helping those individuals in active substance use or disorder who are willing to pursue significant change find pathways to treatment and needed services. The priorities seek to address conditions of OUD/SUD for the individual user. Conditions related to OUD/SUD may include HIV, Hepatitis C, other infections, overdose, and death among people who are unable or not ready to stop using substances. Coordinated crisis response and connection to services also seeks to reduce harm to family members and friends of persons with active substance use, along with public health workers and first responders.

PREMISE

Informed by the asset mapping and stakeholder discussions, the Roanoke Valley MSA is lacking sufficient information to identify rates of overdose (fatal and reversed), capture standard and consistent data across all response sectors, educate and equip citizens to prevent and reduce overdose, and connect persons in active OUD/SUD to services. The RVCR seeks to identify existing resources for overdose reversal and a continuum of care for reduction, prevention, and reoccurrence of SUD-related diseases and overdoses. Crisis response and care connection strategies require that interventions and policies to serve individuals with SUD reflect specific individual and community needs. Such strategies also require meeting the individual and the service provider continuum where they are with regard to readiness to change behaviors and practices.

RECOMMENDED PRIORITIES

Priority 1: Use ODMAP and FAACT platforms to determine OUD/SUD overdose prevalence, predictors, and trends across the Roanoke Valley MSA and within distinct geographic communities.

Priority 2: Use ODMAP and FAACT platforms and other available data to inform geographic- and individual-level treatment strategies, including harm reduction.

Priority 3: Implement trauma informed response services to those at risk of and experiencing overdose.

Priority 4: Expand and create resources that complement existing programs through law enforcement and criminal justice efforts and support individuals transitioning from incarceration into the community from incarceration.
Priority 5: Increase access to Naloxone and other harm reduction methods, with emphasis on high-risk geographic areas.

CRISIS RESPONSE AND CONNECTION TO CARE PRIORITY 1

Use ODMAP and FAACT platforms to determine opioid and other substance overdose prevalence, predictors, and trends across the Roanoke Valley MSA and within distinct geographic communities. [49,40]

ACTION ITEMS FOR PRIORITY 1

a. Explore connection between Roanoke-area data and the state level Emergency Medical Services (EMS) record management system (RMS) with the purpose of identifying high risk areas and determining needs for services.

b. Collaborate with ODMAP and FAACT to train a cross-jurisdictional data team to foster uniform data input and develop shared process protocols to reduce duplicate entry.

c. Convene first responders from local jurisdictions to set up and train on ODMAP with a goal to have 100% of jurisdictions implementing ODMAP.

d. Evaluate how current locality systems can integrate ODMAP in order to network resources for services.

e. Establish monitoring and dissemination protocols through discussion with other jurisdictions across Virginia that have implemented ODMAP, including the High Intensity Drug Trafficking Area program (HIDTA).

f. Disseminate ODMAP outputs with other data distribution sources (e.g., social media, Facebook Messenger) to inform the community of evolving risks in a timely manner.

SUSTAINABILITY NEEDS FOR PRIORITY 1

- Ongoing engagement with key stakeholders is critical for successful buy-in at the most local level for ODMAP implementation and sustainability. RVCR can help facilitate this process.
- Sustained access to/connection to FAACT platform.

CRISIS RESPONSE AND CONNECTION TO CARE PRIORITY 2

Use ODMAP and FAACT platforms and other available data to inform geographic-and individual-level treatment strategies, including harm reduction. [50,51]

ACTION ITEMS FOR PRIORITY 2

a. Develop joint protocols across jurisdictions for assessing risk and identifying areas of high need using ODMAP and FAACT data, including emerging drug trends, vulnerable populations, and effective intervention strategies.

b. Develop process for broadcasting notices of overdose risk to officials across the Roanoke Valley MSA.

c. Establish protocols for responding to overdose risk with crisis response, harm reduction services, and connections to treatment.

d. Connect individuals and communities with high overdose risk to crisis response and treatment strategies.

SUSTAINABILITY NEEDS FOR PRIORITY 2:

- Will require putting joint protocols into action and monitoring for meaningful outcomes.

CRISIS RESPONSE AND CONNECTION TO CARE PRIORITY 3

Implement trauma informed response services to those at risk of and experiencing overdose. [26,52]

ACTION ITEMS FOR PRIORITY 3

a. Determine continuum of care (COC) partners for response services and develop a graphic that can be displayed on websites and other social media outlets.

b. Develop communication, coordination, and referral protocols. Connection points are essential at regional jails, EDs, and EMS to assure that individuals at risk of overdose are supported through each transition from these touch points to services.

c. Develop Business Associates Agreement (BAA) for COC partners to enable transparency in referral and follow-up services.

d. Develop a connection to care kit to provide to individuals following an overdose or who are at risk of overdose with the intent of establishing a lifeline to resources ranging from personal care and housing services, to harm reduction strategies and connections to treatment.

- To be distributed to individuals with SUD who leave the emergency department, EMS, or other points of contact to link with resources to treatment services and entities providing harm reduction strategies.
- The kits will include Naloxone, contact information on a card for connection to treatment services, and daily living supplies.

e. Support best practices that extend time of stay in the Emergency Department or provide treatment connections after an overdose.

- Engage with the person who overdoses more purposefully allows gauging their real needs and readiness for treatment.

f. Embed peer-recovery models into EDs and throughout the community.

- Community engagement has shown that the peer-recovery model is an important aspect of the treatment and recovery process in the Roanoke region.

g. Provide timely resources on scene with EMS response for an overdose and mechanism for follow-up within specified, rapid time frame.

h. Expand public messaging about available resources and harm-reduction strategies through social media and community awareness events.

SUSTAINABILITY NEEDS FOR PRIORITY 3

- Grant funding would be useful to study the efficacy of the Connection to Care model. With evidence of efficacy, state and local governments could be petitioned to provide sustained funding for service provision either through direct allocation or ability to bill services through Medicaid.
- Will require assessment of provider ability to bill insurance for Connection to Care services provided by PRS.

CRISIS RESPONSE AND CONNECTION TO CARE PRIORITY 4

Expand and create resources that complement existing programs through law enforcement and criminal justice efforts and support individuals transitioning into the community from incarceration. [53, 54, 55, 56]

ACTION ITEMS FOR PRIORITY 4

a. Identify existing resources and expand upon best practices that compliment law enforcement and criminal justice efforts, such as Drug Court, Residential Substance Abuse Treatment (RSAT), and HOPE Initiative. This service array should include treatment services that work in conjunction with punitive measures to complement the criminal justice system as well as reentry supports for post incarceration.

- Evaluate effectiveness and assess ways to improve Drug Court, RSAT, ALPHA, and HOPE Initiative to reach positive outcomes for individuals currently involved in the legal system. Evaluation should include providers and participants.
- Dialogue with law enforcement to better understand their needs and gaps in services and training.
- Host meeting with representatives from these programs, the RVCR members, local law enforcement, criminal justice representatives (judges, magistrates), and participants who have been in these programs to explore a range of treatment services that work in conjunction with punitive measures to complement the criminal justice efforts.

b. Enable law enforcement to exercise a point of contact to connect individuals with community-based resources including trauma informed intensive case management programs where individuals receive a wide range of resources to address transitional and/or permanent housing, OUD/SUD treatment and recovery programs, and legal obligations.

- Evaluate agency resources required for referrals to services at transition touchpoints.
- Establish protocols for law enforcement and criminal justice education to engage and refer individuals to resources.
- Explore needs of juveniles who have been involved with law enforcement and criminal justice and identify best practices for addressing needs.

c. Explore models of various therapeutic communities that not only address SUD but also behavior modification and accountability.

SUSTAINABILITY NEEDS FOR PRIORITY 4

- Potential reinvestment of criminal justice cost cuts and reallocation of other sources, such as through lowered recidivism and criminal drug related funds, may support sustainability.

CRISIS RESPONSE AND CONNECTION TO CARE PRIORITY 5

Increase access to Naloxone and other harm reduction methods, with emphasis on high-risk geographic areas. [57,21,58]

ACTION ITEMS FOR PRIORITY 5

a. Improve access to and distribution of Naloxone in the Roanoke Valley, especially to groups at highest risk for overdoses (e.g., persons with active SUD and persons leaving treatment and incarceration; see also Treatment Priority #3).

- Develop list of current and potential distribution channels.
- Secure Naloxone for community distribution to individuals with a high risk of overdose.
- Distribute Naloxone for individuals being released from incarceration who have a history of opioid use.

b. Raise awareness of effectiveness of the range of harm reduction strategies that can be expanded or introduced in the Roanoke Valley.

- Educate local pharmacies (especially frontline pharmacy techs) on Commonwealth's standing order and how to process it through insurance.
- Host educational session with CEUs.

c. Train local outreach workers in Rapid REVIVE! to distribute Naloxone in the community to individuals with a high risk of overdose.

MODEL PROGRAM OR BEST PRACTICE OPTION

Post-release opioid-related overdose mortality is the leading cause of death among people released from jails or prisons. A recent Post-Release Opioid-Related Overdose Risk Model could be considered by the Roanoke Valley to provide targeted healthcare services and harm reduction strategies to meet the needs of new releasees. Giving access to Naloxone, for example, upon release period could reduce overdose deaths. [59]

d. Address needs of individuals with Hep C and HIV in conjunction with SUD treatment.

e. Educate the community at large through social media and community awareness events on existing comprehensive harm reduction efforts and engage stakeholders on considerations for expanding harm reduction efforts.

f. Explore the feasibility and effectiveness of overdose prevention sites for the Roanoke Valley.

SUSTAINABILITY NEEDS FOR PRIORITY 5

- Continue to monitor sources of and advocate for no cost and low-cost Naloxone and harm reduction efforts available to individuals and organizations across all jurisdictions.

CHILD AND FAMILY SUPPORT

DEFINING: Child and Family Support is defined as services to foster healthy maintenance and preservation of the family unit with a focus on children whose parents are actively experiencing OUD/SUD and on relatives and friends who support the family through OUD- and SUD-related crises as well as during treatment and recovery.

PREMISE

Children and families are often the unseen victims of the opioid epidemic. Children and families throughout the Roanoke Valley are significantly impacted by the opioid and addiction crisis. To mitigate these impacts, the Child and Family Support workgroup, combining information for the RVCR asset mapping, identified resources currently available to children and families. The group also explored the unmet needs of these children and families, with a focus on services needed to provide short- and long-term stabilization and family preservation. Crisis support, legal advising protocols, prevention, education, and efforts to keep families intact are critical to ensuring family well-being and to reducing fiscal, geographic, and stigma barriers associated with the opioid and addiction crisis. With rising rates of SUD, the Roanoke Valley has an increase in diverse family care structures. Home placements with relatives or family friends (fictive kinship) have become more commonplace for alternative care, in addition to traditional foster care placements. Many individuals serving as guardians in alternative home placements would benefit from additional support to ensure the best outcomes for children and family members. Families impacted by SUD often have interactions with service providers from legal, mental health, and other fields. The integration of a trauma informed care model is essential in reducing the risk of re-traumatization among children and family members seeking support. It is also critical that service providers are aware of how best to address diverse family care structures. The following recommendations intend to address these urgent issues.

RECOMMENDED PRIORITIES

Priority 1: Develop interagency processes to support families impacted by OUD/SUD.

Priority 2: Implement and monitor best practices to prevent family disruption and/or enable family reunification.

Priority 3: Educate the Community at Large about the effects of OUD/SUD on children and families and about impact in the Roanoke Valley.

Priority 4: Expand supportive networks and physical spaces for children and families impacted by active OUD/SUD.

1 - Someone who, though unrelated by birth or marriage, has such a close emotional relationship with another that they may be considered part of the family.

CHILD AND FAMILY SUPPORT PRIORITY 1

Develop interagency processes to support families impacted by SUD. [60,61]

ACTION ITEMS FOR PRIORITY 1

a. Promote the integration of a trauma informed care model into all child and family services, with an emphasis on being culturally competent and addressing diverse family care structures.

- Identify organizations in the area that have already integrated a trauma informed care model and organizations that would benefit from trauma informed care training.
- Develop educational materials to distribute to local organizations with a focus on working with diverse family care structures.
- Appoint a representative from the Roanoke Valley Collective Response to attend the **Trauma Informed Care Network (TICN)** meetings and identify opportunities for collaboration.

b. Create and distribute a resource list of services that can assist families and individuals in navigating various aspects of the legal and support service systems.

- Identify programs/services in the community that offer support for individuals to navigate the legal or support service systems.
- Compile and distribute the list of identified services.
- Identify opportunities to connect the listed programs with rural areas in the region (workshops, mobile days, etc.).

c. Identify strategies to communicate with Juvenile and Domestic Court judges, the legal community, and service providers regarding changing needs, emerging trends, and trauma informed care in our community.

- Develop local, multi-sector working groups to report on changing trends and needs in the community. Groups should include representation from schools, service providers, prevention and afterschool programs, community health workers, legal and law enforcement, community, and service providers, among others. The RVCR is a logical facilitator of these connections and workgroups.
- Develop or locate existing educational resources that can be used to educate the legal community and service providers regularly about changing needs within the community and trauma informed care.

SUSTAINABILITY NEEDS FOR PRIORITY 1

- Continued communication with community stakeholders will enable dialogue surrounding new programs and changing needs within the region.

- Community dialogue will inform improvements to the training resources.
- Ideally, the resource directory will be housed, promoted, and maintained by an existing organization in the region that has broad reach.

CHILD AND FAMILY SUPPORT PRIORITY 2

Monitor and implement best practices to prevent family disruption and/or enable family reunification. [62, 63, 64, 65]

ACTION ITEMS FOR PRIORITY 2

a. Identify or create a common tool that can be used for a family needs assessment.

- Use best practices and existing tools (such as the Virginia DSS CANS assessment) to create an assessment tool to assess the entire family's needs (if applicable).
- Make the family assessment tool available to community organizations on-line.
- Compile and provide a list of recommended questions for agencies to ask clients during the screening/intake process that will enable capturing standardized data relevant to SUD in the community and eligibility for complementary support services.

b. Connect adults in treatment for SUD to peer recovery specialists, including those reentering the community from incarceration.

- Maintain easily accessible list of organizations with peer recovery specialists in the region for referrals.
- Advocate to healthcare decision makers for expansion of existing peer recovery specialist services and extension to other key service providers within the Roanoke MSA.

c. Investigate best practices for supporting youth with SUD (e.g., a peer recovery model for adolescents).

MODEL PROGRAM OR BEST PRACTICE OPTION

VDBHDS endorses the **High Fidelity Wraparound (HFW)** framework, which is a team-based, collaborative planning process for developing and implementing individualized care plans for children with behavioral health challenges and their families. HFW is an evidence-based process driven by 10 principles. [26] This framework can easily be applied broadly in the Roanoke Valley.

d. Advocate for the use and implementation of Intensive Care Coordination (ICC) and high fidelity wraparound service principles to relevant partners. According to the Virginia Department of Behavioral Health and Developmental Services [66] "ICC ensures necessary services are provided to youths and their families that maintain or transition youths to family-based or community-based setting. These services involve activities that extend beyond regular case management services that are within the normal scope of responsibilities of the public child-serving system, and that are beyond the scope of - Mental Health Case Management."

- Conduct training about ICC and high fidelity wraparound services for RVCR and other community stakeholders.
- Identify an agency experienced with high fidelity wraparound services that could lead the training.
- Identify alternative funding sources to support ICC and other high fidelity wraparound services.
- Encourage referrals from the judicial and legal communities to organizations conducting ICC and high fidelity wraparound services.

MODEL PROGRAM OR BEST PRACTICE OPTION

Sobriety Treatment and Recovery Teams (START) is a Child Protective Services program for families experiencing parental substance misuse and child abuse/neglect. Potentially useful for the Roanoke Valley, this program helps parents achieve sobriety and keeps children with their parents when it is possible and safe. START has proven to be very effective at improving outcomes for mothers. Mothers who participated in START achieved sobriety at nearly twice the rate of mothers treated without START. Children in families served by START were half as likely to be placed in state custody as compared with children in a matched control group (21% and 42%, respectively).

e. Assess options at beginning of treatment to address individual family needs including family reunification strategies and developmental needs of minor children.

- Investigate best practices for including a family needs assessment in development of treatment plans.
- Educate treatment providers about best practice models.

MODEL PROGRAM OR BEST PRACTICE OPTION

The **National Alliance on Mental Illness (NAMI)** offers a youth peer group and training for youth leaders (four areas of Virginia already have the program in place); Youth Era, an Oregon program, trains youth to be peer supporters and advocates. [67]

SUSTAINABILITY NEEDS FOR PRIORITY 2

- Expanded access to family services addressing the needs of all family members are critical to stop the generational cycle of dependence.
- Development of community tools and expanded, ongoing training so that service providers can incorporate these resources into their regular operations.

CHILD AND FAMILY SUPPORT PRIORITY 3

Educate the Community at Large about the effects of OUD and SUD on children and families and about impact in the Roanoke Valley. [68]

ACTION ITEMS FOR PRIORITY 3

a. Identify the lay persons (i.e., individuals without formal position in the service community) who are community/cultural influencers but who may not have complete education about SUD. Community members want to help, but often they do not have enough knowledge about OUD or SUD and effective ways to support children and families in crisis.

- Determine sources of local engagement of lay persons (i.e., where do people gather, get information, get groceries, get their hair cut, go to church, etc.). Community Health Workers (e.g., United Way) are knowledgeable sources of this information.
- Find potential links for identifying neighborhood-specific lay persons, particularly in high risk areas. For example, court advocates may have knowledge about community leaders. Faith-based organizations and coalitions are also good resources to engage local community members.

b. Present easily accessible educational materials to lay persons in person or on-line. There are several existing community education programs and materials geared specifically toward community education. For examples refer to resources provided by the **Partnership for Drug Free Kids**. Educational materials should also include facts and data specific to Roanoke. These materials could be promoted across the Roanoke Valley as part of other campaigns (see Prevention Priority #2).

SUSTAINABILITY NEEDS FOR PRIORITY 3

- Mechanisms in place to continually promote and provide current training to lay persons in the community (see Prevention Priority #2).
- Means to conveying accurate up-to-date data to community members (e.g., from FAACT data reports).

CHILD AND FAMILY SUPPORT PRIORITY 4

Expand supportive networks and physical spaces for children and families impacted by active OUD/SUD. [69]

ACTION ITEMS FOR PRIORITY 4

a. Identify safe spaces in the Roanoke Valley where children and family members of individuals with active SUD can receive support. Safe is defined as a place they can talk about a parent/family member's SUD without feeling shame, stigma, or threat. Examples of safe spaces include faith spaces, after-school programs, Roanoke Diversity Center, and other community youth service organizations.

b. Identify existing organizations that could offer safe spaces and meaningful services for both minor children and adult family members.

MODEL PROGRAM OR BEST PRACTICE OPTION

Community responses to children affected by SUD are often guided by a belief that unless the substance dependent parent receives treatment, there is little help for the child. It is true that much of SUD- and OUD-related is adult-centric, but a significant body of research proves the importance of not only addressing the immediate well-being of the children of parents with SUD but preventing the continuing cycle of drug dependence. It is important that Roanoke explore a range of best practice programs for these children and disseminate the best practices broadly in schools and community settings. Guidance provided by local Virginia Tech researchers can be found in this **article**.

c. Identify training needs for programs or organizations that are serving youth impacted by OUD and SUD.

- Ensure staff of youth serving organizations receive trauma informed care training.
- Provide education to professional and lay audiences about OUD and stigma.

d. Identify resources and funding needs to establish new or adapt existing sites for safe spaces.

- Assess family needs and preferences for safe spaces.

e. Explore resources needed to establish whole family-based recovery spaces.

MODEL PROGRAM OR BEST PRACTICE OPTION

The demand for materials to assist child welfare agencies in approaches that are culturally safe, trauma informed, harm reduction-oriented and family-child-driven is high. Roanoke is no exception. A toolkit recently developed in Canada is an example of an open-access, free kit that highlights the state-of-the art in how we can improve efforts in partnership with the women and families who use services. The toolkit, **Mothering and Opioids: Addressing Stigma and Acting Collaboratively**, is a multi-session program that could be easily adapted for our community. [70]

MODEL PROGRAM OR BEST PRACTICE OPTION

The Family Recovery and Reunification Program in Illinois works with parents with open foster care cases who screen positive for parental SUDs. Treatment Alternatives for Safe Communities (TASC) case managers engage parents in treatment and other services needed to achieve recovery and family unity, including parenting classes, individual and family counseling, and assistance in finding housing and employment. Through TASC's intensive outreach and case management, the program helps achieve family reunification more often and more quickly.

RECOVERY

DEFINING: Recovery is defined as processes of change through which individuals, families, and communities affected by SUD seek continual improvement in their health and wellness, are self-directed, and strive to reach full potential. Because recovery often involves setbacks, resilience is key. Resilience in recovery is also vital for family members. Hope, the belief that these challenges and conditions can be overcome, is the foundation of recovery.

PREMISE:

Recovery is a much-needed part of the answer to Roanoke Valley communities hard hit by SUD. Yet recovery supports are significantly lacking. The Recovery Workgroup recommendations relate primarily to four major dimensions that foster recovery [71]:

- Health—overcoming or managing one's disease(s) or symptoms and making informed, healthy choices that support physical and emotional well-being.
- Home—having a stable and safe place to live.
- Purpose—conducting meaningful daily activities and having the independence, income, and resources to participate in society.
- Community—having relationships and social networks that provide support, friendship, love, and hope.

RECOMMENDED PRIORITIES:

Priority 1: Educate multiple stakeholders, prioritizing businesses that are open to hiring people in recovery, about the many paths to recovery and the importance of coordinated care.

Priority 2: Build a roadmap for employers that provides information about how recovery can be mutually beneficial.

Priority 3: Establish and sustain dialogue with the insurance sector to increase coverage for recovery services.

Priority 4: Increase availability of recovery ("sober") housing and wraparound services.

Priority 5: Improve human resource policies to support recovery in the workplace.

RECOVERY PRIORITY 1

Educate multiple stakeholders, prioritizing businesses that are open to hiring people in recovery, about the many paths to recovery and the importance of coordinated care. [72, 73]

ACTION ITEMS FOR PRIORITY 1

a. Educate the business community on recovery options and supports using on-line or face-to-face training, social media, and traditional advertising.

- Some options to underscore include but are not limited to National Acupuncture Detoxification Association (NADA) protocols, SMART Recovery, Addiction Counseling, and 12-step support groups.
- Work with employers to reduce stigma of employees in recovery and their ongoing support needs.

b. Encourage employers to offer support groups on site or provide options to take advantage of supports offered elsewhere.

MODEL PROGRAM OR BEST PRACTICE OPTION

Employment is vital for OUD/SUD treatment success and is associated with a decreased likelihood of relapse (Henderson, Hoots, et Al. 2019). SAMHSA provides a **kit for practice principles** for supported employment, using an approach to vocational rehabilitation for people living with serious mental illness, including SUD/OUD. This could be used to educate employers and adopted broadly in the Roanoke Valley.

MODEL PROGRAM OR BEST PRACTICE OPTION

A **Homeless Management Information System (HMIS)** is a local information technology system used to collect client-level data and data on the provision of housing and services to homeless individuals and families and persons at risk of homelessness. Each Continuum of Care is typically responsible for selecting an HMIS software solution that complies with HUD's data collection, management, and reporting standards. An HMIS-type system for Roanoke would be a significant asset and could possibly be joined with the FAACT platform. [74]

c. Explore options for a Continuum of Care Hub and mobile application to track real-time availability of services, encourage connection to care, and facilitate dialogue among service providers regarding issues and difficult cases (also see Treatment Priority #3, Connection to Care and Crisis Response Priority #4).

d. Establish a job board geared toward employers willing or seeking to hire individuals in recovery. The RVCR website is a possible resource.

SUSTAINABILITY NEEDS FOR PRIORITY 1

- Sustained engagement of the business community with recovery support service providers.
- Ongoing training for employers without recovery support services to be organized through professional organizations (Chamber of Commerce, Society of Human Resource Managers (SHRM), Professional and Trade Associations, etc.) and facilitated by individuals identified by the Collective Response.

RECOVERY PRIORITY 2

Build a roadmap for employers that provides information about how recovery can be mutually beneficial. [72, 75, 76, 77, 78]

ACTION ITEMS FOR PRIORITY 2

a. Provide current data to employers on the quality of work and positive impacts that people in recovery can provide.

- Data is typically used to show the negative implications of SUD. This equation can be flipped to show positive impacts of recovery. Focused messaging is key. For example, people in recovery who return to work, vote, volunteer, cease being an economic "burden" to communities, and instead become fully restored tax-paying citizens.

b. Increase employer awareness of the mental health component of SUD and recovery.

- Train employers to recognize the signs and symptoms of active OUD/SUD and relapse behaviors so that preventative measures (i.e., interventions that occur before full relapse or complete behavioral relapse happens) can be taken.

c.. Advocate on the state and federal level for economic incentives for businesses to hire people in recovery.

d. Identify ways to disseminate information about SUD and recovery through local trade associations in targeted industries, such as food service and construction trades.

- Provide messaging materials that can be shared with employers on positive impact to bottom line (What does it mean to be a Recovery Friendly employer?). For example,

emphasize that people in recovery use fewer sick days, are more productive, and bring a greater sense of positivity to the job.

MODEL PROGRAM OR BEST PRACTICE OPTION

It is essential that the Roanoke Valley take measures to assure that the Americans with Disabilities Act (ADA), the Rehabilitation Act, and other anti-discrimination laws are enforced among employers to reduce individuals' fear of entering SUD treatment when they are employed or discrimination when seeking new employment once they are in recovery. **SAMHSA's Transforming Lives Through Supported Employment (SE) Program** offers guidance and provides models from several states that could guide efforts in Roanoke.

SUSTAINABILITY NEEDS FOR PRIORITY 2:

- Sustainability could be achieved if we could commodify recovery data and offer it to private employers at a subscription cost that would be priced to cover basic overhead. Issues of privacy and security would need to be addressed.
- Possibly facilitated through the FAACT platform, data could include capturing indicators such as people in recovery and sick days, work productivity, economic sufficiency and salary increase, currents of economic mobility (from homeless to renter to homeowner type of scenario), people in recovery and job performance and performance evaluations, decrease in criminal behavior, increase in positive parental, familial, community involvement.

RECOVERY PRIORITY 3

Establish and sustain dialogue with the insurance sector to increase coverage for recovery services. [79, 80, 81]

ACTION ITEMS FOR PRIORITY 3

a. Identify and invite insurance benefits experts to RVCR meetings.

- Determine what can be done at local and state levels to advocate for increased coverage of recovery services by the insurance industry.
- Seek assistance from the insurance industry to assist in improving access treatment and recovery services for the uninsured.
- Identify ways to incentivize insurance sector/public/private sector partnerships to lowering barriers and cost for recovery services.

b. Document and share wellness parameters with relevant parties (i.e., insurance providers, employers, the larger business community and other interested entities) to reduce health insurance costs and provide healthy incentives to employees and employers who have hired or are thinking of hiring people in recovery.

c. Overcome concerns among employers about relapse and increased medical insurance costs through online resources and educational workshops facilitated by individuals identified by the Collective Response.

SUSTAINABILITY NEEDS FOR PRIORITY 3

- Sustained engagement of the business community and insurance experts in RVCR meetings.

RECOVERY PRIORITY 4

Increase availability of recovery ("sober") housing and wraparound services in the Roanoke Valley MSA. [82, 83, 84]

ACTION ITEMS FOR PRIORITY 4

a. Create partnerships with Restoration Housing, Virginia Community Capital, Carilion Clinic, and local real estate developers to explore immediate and long-term housing needs (Permanent Supportive Housing) as a model and help integrate their housing stock to such housing.

- The overall need for recovery-based and oriented housing is a significant gap in the Roanoke Valley, including the following:
    - o Gap housing (between contemplating and entering into treatment)
    - o Post-treatment housing/Post treatment transitional and long-term housing
    - o Post-detox Recovery Supportive Housing;
    - o Long-term sustainable housing (sustainable, affordable, safe).

MODEL PROGRAM OR BEST PRACTICE OPTION

Approaches to supportive housing that emphasize choice for individuals with OUD offer both the supports and the opportunities for individuals to enter into and maintain recovery. The report, **Choice Matters: Housing Models That May Promote Recovery for Individuals and Families Facing OUD**, provides strong evidence that could assist Roanoke Valley leaders and providers in better understanding which housing models may be most effective for different populations of individuals and families with OUD.

b. Maximize the strength and cost effectiveness of Peer Recovery Specialists on site.

c. Establish housing options that are proximal to food and healthcare access.

d. Use Opportunity Zone, New Market, and other tax credits to stimulate investment in housing options.

SUSTAINABILITY NEEDS FOR PRIORITY 4

- Unknown at this time

RECOVERY PRIORITY 5

Improve human resource policies to support recovery in the workplace. [85, 86, 87]

ACTION ITEMS FOR PRIORITY 5

a. Educate employers on providing creative ways to create safe, supportive environments for recovery.

b. Educate employers with employee assistance programs on how they can take a more active role in promoting their services to employees.

c. Educate employers and employees about ADA requirements for those employed in an "At Will" state (like Virginia) so all vested parties can understand what IS and IS NOT protected.

d. Advocate to provide paid or unpaid time off for people in recovery to maintain their recovery programs, which may include support groups, counseling, and other related mental health and healthcare appointments.

- Allow participation in mutual aid groups during work time (e.g., going to an Alcoholics Anonymous meeting during lunch)
- Allow for support calls (calling 12-Step Sponsors, therapists, Certified Peer Recovery Specialists, etc.) during scheduled work hours.

e. Increase employment opportunities for people in recovery (especially for individuals with previous involvement in the criminal justice system) by providing workforce development and skills training opportunities.

- Foster public/private partnerships between government, agencies, and business and recovery community organizations to identify opportunities for skills training and job creation.

f. Advocate for a pathway to rights restoration for people in recovery in Virginia with a felony background related to addiction.

- Explore similar legislation passed in other states, including **Kentucky House Bill 40: Felony Expungement (KRS 431.073)**, which created a path to expungement for individuals convicted of a Class D felony (with limited exceptions).

MODEL PROGRAM OR BEST PRACTICE OPTION:

A best practice for Roanoke Valley employers should be to have less focus on strict compliance with their drug policies and instead on engaging in proactive strategies that offer supports to their employees. Further, employers can take the lead in negotiating for alternative pain management coverage in their health insurance plans and in promoting their employer assistance programs. They can also allow employees to use their Family and Medical Leave Act (FMLA) rights to leave while supporting family members with SUD. As such, employers can help to prevent opioid-related problems in the workplace before they begin, and can support and foster goodwill with their employees, while reducing legal liability concerns. [88]

SUSTAINABILITY NEEDS FOR PRIORITY 5:

- Sustain partnerships and relationships between employers, employees, and recovery support services to ensure that identified services are maintained and integrated into the structure of the workforce.
- Convey to employers the financial investment expected of them in order to support potential employees.
- Maintain a current, accessible list of recovery and treatment resources to assist employers with providing support to employees.
- Demonstrate the positive impacts of investing in recovery (and people in recovery) for economic development and community renewal through data tracking, literature review, and execution of a cost-benefit analysis.

VII. NEXT STEPS

The RVCR will continue to put forth sustainable recommendations based on evidence and local insight to local leaders and decision makers. As we move forward, it will be essential to facilitate multi-sector planning and implementation processes to maintain a shared vision. Helping to bring ongoing meaningful relationships between our stakeholders and ODMAP and FAACT will be key to identifying necessary data and meaningful data reporting. Ultimately, we strive to facilitate evidence-based, locally relevant policy and practice and shared resources across the Roanoke Valley.

Many successes have already occurred as a function of developing this Blueprint. However, much work remains. The RVCR stakeholders identified several immediate next steps subsequent to the Blueprint release:

1. Continue to **explore information gained from asset mapping and working groups** to continue to identify resources and gaps within the Roanoke Valley. We seek to accompany local officials in town hall meetings to encourage Blueprint-driven dialogue.

2. **Present the Blueprint** to various community stakeholder groups, regional and state officials, and community stakeholders according to our roll-out plan.

3. Develop an **evaluation plan**, outlining recommendations for sustainable and measurable action in collaboration with FAACT .

4. Prepare a **financial mode**l, including budget estimates and sustainability needs per priority. These recommendations will be presented to local officials in a forthcoming Blueprint Supplement.

5. Establish optimal means to **measure/access to local data on OUD/SUD** and misuse in partnership with FAACT .

6. **Engage community as evaluation and research partners** to learn from best practices and inform future research focused on local solutions and with regional scientists.

7. **Secure funding sources** to strengthen support from our backbone organization, Bradley Free Clinic.

8. **Identify policy considerations and make policy recommendations per priority.** These recommendations will be presented to local officials and other stakeholders in a forthcoming Blueprint Supplement.

9. Generate supplemental **Blueprint recommendation areas**, including rising poly-drug use and youth treatment options, including recovery school models. These recommendations will be presented in a forthcoming Blueprint Supplement.

10. Conduct a **community-wide assessment** to understand and improve OUD/SUD service disruption in the face of pandemics and other systemic emergencies.

11. Determine **RVCR roles in short- and long-term implementation** and execution of Blueprint recommendations.

All of these actions are intended to advance the RVCR mission to re-chart the course of OUD/SUD in our community of service—not only preventing but ensuring that there are always pathways to healthy and sustainable living, regardless of the substance or SUD severity.

For more information about this Blueprint or to provide comment or input, please contact the RVCR through our website: www.rvcollectiveresponse.org.

IX. CURRENT EVIDENCE BASE BY PRIORITY

PREVENTION AND EDUCATION

PREVENTION AND EDUCATION PRIORITY 1

Use data-driven approaches to identify at-risk populations within the Roanoke Valley MSA with greatest prevention service needs.

- Bonfine, N., Munetz, M. R., & Simera, R. H. (2018). Sequential Intercept Mapping: Developing Systems-Level Solutions for the Opioid Epidemic. Psychiatric Services, 69(11), 1124–1126. doi:10.1176/appi.ps.201800192
- Ertugrul, A. M., Lin, Y. R., & Taskaya-Temizel, T. (2019). CASTNet: Community-Attentive Spatio-Temporal Networks for Opioid Overdose Forecasting. arXiv preprint arXiv:1905.04714.

PREVENTION AND EDUCATION PRIORITY 2

Provide prevention education across a range of sectors emphasizing the need for and benefits of prevention, including prevention efficacy and economic benefit.

- Gano, L., Renshaw, S. E., Hernandez, R. H., & Cronholm, P. F. (2018). Opioid Overdose Prevention in Family Medicine Clerkships: Family Medicine, 50(9), 698–701. doi:10.22454/fammed.2018.757385
- Davison, C., & Perron, M. (2013). First do no harm: Responding to Canada's prescription drug crisis. Ottawa: Canadian Centre on Substance Abuse
- National Drug Intelligence Center (NDIC). 2011. The Economic Impact of Illicit Drug Use on American Society. Washington, DC: United States Department of Justice

PREVENTION AND EDUCATION PRIORITY 3

Apply the CADCA's "Seven Strategies for Community Change" to implement new and expand existing universal, selective, and indicated prevention programs across the spectrum of severity and across diverse populations.

- Cavazos-Rehg, P., Grucza, R., Krauss, M. J., Smarsh, A., Anako, N., Kasson, E., - Bierut, L. J. (2019). Utilizing social media to explore overdose and HIV/HCV risk behaviors among current opioid misusers. Drug and Alcohol Dependence, 205, 107690. doi:10.1016/j.drugalcdep.2019.107690
- Scott, C. K., Dennis, M. L., Grella, C. E., Nicholson, L., Sumpter, J., Kurz, R., & Funk, R. (2020). Findings from the recovery initiation and management after overdose (RIMO) pilot study experiment. Journal of Substance Abuse Treatment, 108, 65–74. doi:10.1016/j.jsat.2019.08.004

PREVENTION AND EDUCATION PRIORITY 4

Promote safe and effective pain management practices.

- Karamchandani, K., Klick, J. C., Linskey Dougherty, M., Bonavia, A., Allen, S. R., & Carr, Z. J. (2019). Pain management in trauma patients affected by the opioid epidemic: A narrative review. The Journal of Trauma and Acute Care Surgery, 87(2), 430–439. doi:10.1097/TA.0000000000002292
- Sturdivant, T., Seguin, C., & Amiri, A. (2020). Ethical Decision-Making for Nurses Treating Acute Pain in Patients with Opioid Abuse History. Medsurg Nursing, 29(1).
- Wiener, R. C., Waters, C., Bhandari, R., Trickett Shockey, A. K., & Panagakos, F. (2019). U.S. Re-Licensure Opioid/Pain Management Continuing Education Requirements in Dentistry, Dental Hygiene, and Medicine. Journal of Dental Education, 83(10), 1166–1173. doi:10.21815/JDE.019.115

TREATMENT

TREATMENT PRIORITY AREA 1

Improve compatibility in data systems across the medical, planning, and emergency response sectors to enable more effective data sharing related to prescriptions and prior care.

- Daly, E. R., Dufault, K., Swenson, D. J., Lakevicius, P., Metcalf, E., & Chan, B. P. (2017). Use of emergency department data to monitor and respond to an increase in opioid overdoses in New Hampshire, 2011-2015. Public Health Reports, 132(1-suppl), 73S-79S. doi:10.1177/0033354917707934
- Smart, R., Kase, C. A., Taylor, E. A., & Stein, B. D. (2019). Strengths and Weaknesses of Existing Data Sources to Support Research to Address the Opioids Crisis. Preventive Medicine Reports, 101015. Retrieved from https://doi.org/10.1016/j.pmedr.2019.101015

TREATMENT PRIORITY AREA 2

Increase interagency collaboration to ensure that best treatment practices are available and applied across the continuum of care.

- Rawson, R. A., Rieckmann, T., Cousins, S., McCann, M., & Pearce, R. (2019). Patient perceptions of treatment with medication treatment for opioid use disorder (MOUD) in the Vermont hub-and-spoke system. Preventive medicine, 128, 105785. Retrieved from https://doi.org/10.1016/j.ypmed.2019.105785
- Reif, S., Brolin, M. F., Stewart, M. T., Fuchs, T. J., Speaker, E., & Mazel, S. B. (2020). The Washington State Hub and Spoke Model to increase access to medication treatment for opioid use disorders. Journal of substance abuse treatment, 108, 33-39. Retrieved from https://doi.org/10.1016/j.jsat.2019.07.007

TREATMENT PRIORITY AREA 3

Strengthen continuum of care and transitions in care to reduce gaps and interruptions in treatment.

- Edwards, F. J., Wicelinski, R., Gallagher, N., McKinzie, A., White, R., & Domingos, A. (2020). Treating Opioid Withdrawal With Buprenorphine in a Community Hospital Emergency Department: An Outreach Program. Annals of emergency medicine, 75(1), 49-56. Retrieved from https://doi.org/10.1016/j.annemergmed.2019.08.420
- Carroll, J. J., Green, T. C., & Noonan, R. K. (2018). Evidence-based strategies for preventing opioid overdose: what's working in the United States: an introduction for public heath, law enforcement, local organizations, and others striving to serve their community. Retrieved from http://www.cdc.gov/drugoverdose/pdf/pubs/2018-evidence-based-strategies.pdf
- Storholm, E. D., Ober, A. J., Hunter, S. B., Becker, K. M., Iyiewuare, P. O., Pham, C., & Watkins, K. E. (2017). Barriers to integrating the continuum of care for opioid and alcohol use disorders in primary care: a qualitative longitudinal study. Journal of substance abuse treatment, 83, 45-54. Retrieved from https://doi.org/10.1016/j.jsat.2017.09.015

TREATMENT PRIORITY AREA 4

Initiate quick-response treatment options.

- Dunkley, C. A., Carpenter, J. E., Murray, B. P., Sizemore, E., Wheatley, M., Morgan, B. W., . . . Steck, A. (2019). Retrospective review of a novel approach to buprenorphine induction in the emergency department. The Journal of emergency medicine, 57(2), 181-186. Retrieved from https://doi.org/10.1016/
- Scott, C. K., Dennis, M. L., Grella, C. E., Nicholson, L., Sumpter, J., Kurz, R., & Funk, R. (2020). Findings from the recovery initiation and management after overdose (RIMO) pilot study experiment. Journal of Substance Abuse Treatment, 108, 65–74. doi: 10.1016/j.jsat.2019.08.004

CRISIS RESPONSE AND CONNECTION TO CARE

CRISIS RESPONSE AND CONNECTION TO CARE PRIORITY AREA 1

Use ODMAP and FAACT platforms to determine opioid and other substance use overdose prevalence, predictors, and trends across the Roanoke Valley MSA and within distinct geographic communities.

- Beeson, J. (2018). Notes From the Field-ODMAP: A Digital Tool to Track and Analyze Overdoses. Retrieved from https://nij.ojp.gov/topics/articles/odmap-digital-tool-track-and-analyze-overdoses

- Smart, R., Kase, C. A., Taylor, E. A., & Stein, B. D. (2019). Strengths and Weaknesses of Existing Data Sources to Support Research to Address the Opioids Crisis. Preventive Medicine Reports, 101015. Retrieved from https://doi.org/10.1016/j.pmedr.2019.101015

CRISIS RESPONSE AND CONNECTION TO CARE PRIORITY AREA 2

Use ODMAP and FAACT platforms and other available data to inform geographic- and individual-level harm reduction and treatment strategies, including harm reduction.

- Bearnot, B., Pearson, J. F., & Rodriguez, J. A. (2018). Using publicly available data to understand the opioid overdose epidemic: geospatial distribution of discarded needles in Boston, Massachusetts. American journal of public health, 108(10), 1355-1357. Retrieved from https://doi.org/10.2105/AJPH.2018.304583
- Mazumdar, S., S Mcrae, I., & Mofizul Islam, M. (2015). How can geographical information systems and spatial analysis inform a response to prescription opioid misuse? A discussion in the context of existing literature. Current drug abuse reviews, 8(2), 104-110. Retrieved from https://doi.org/10.2174/1874473708021509281853O2

CRISIS RESPONSE AND CONNECTION TO CARE PRIORITY AREA 3

Implement trauma informed response services to those at risk of overdose and experiencing overdose.

- Langabeer, J., Champagne-Langabeer, T., Luber, S. D., Prater, S. J., Stotts, A., Kirages, K., . . . Chambers, K. A. (2020). Outreach to people who survive opioid overdose: Linkage and retention in treatment. Journal of substance abuse treatment, 111, 11-15. Retrieved from https://doi.org/10.1016/j.jsat.2019.12.008
- Scott, C. K., Dennis, M. L., Grella, C. E., Nicholson, L., Sumpter, J., Kurz, R., & Funk, R. (2020). Findings from the recovery initiation and management after overdose (RIMO) pilot study experiment. Journal of Substance Abuse Treatment, 108, 65–74. doi: 10.1016/j.jsat.2019.08.004

CRISIS RESPONSE AND CONNECTION TO CARE PRIORITY AREA 4

Expand and create resources that complement existing programs through law enforcement and criminal justice efforts and support individuals transitioning into the community from incarceration.

- Baughman, M., Tossone, K., Singer, M. I., & Flannery, D. J. (2019). Evaluation of treatment and other factors that Lead to drug court success, substance use reduction, and mental health symptomatology reduction over time. International journal of offender therapy and comparative criminology, 63(2), 257-275. doi:10.1177/0306624X18789832
- Cheesman, F. L., Graves, S. E., Holt, K., Kunkel, T. L., Lee, C. G., & White, M. T. (2016). Drug court effectiveness and efficiency: findings for Virginia. Alcoholism Treatment Quarterly, 34(2), 143-169. doi:10.1080/07347324.2016.1148486

- Goodison, S. E., Vermeer, M. J., Barnum, J. D., Woods, D., & Jackson, B. A. (2019). Law Enforcement Efforts to Fight the Opioid Crisis: Convening Police Leaders, Multidisciplinary Partners, and Researchers to Identify Promising Practices and to Inform a Research Agenda. Retrieved from https://www.rand.org/pubs/research-reports/
- Collins, S. E., Lonczak, H. S., & Clifasefi, S. L. (2017). Seattle's Law Enforcement Assisted Diversion (LEAD): program effects on recidivism outcomes. Evaluation and program planning, 64, 49-56. Retrieved from https://doi.org/10.1016/j.evalprogplan.2017.05.008.

CRISIS RESPONSE AND CONNECTION TO CARE PRIORITY AREA 5

Increase access to Naloxone and other harm reduction methods, with emphasis on high-risk geographic areas.

- Geiger, C., Smart, R., & Stein, B. D. (2019). Who receives naloxone from emergency medical services? Characteristics of calls and recent trends. Substance abuse, 1-8. doi:10.1080/08897077.2019.1640832
- Carroll, J. J., Green, T. C., & Noonan, R. K. (2018). Evidence-based strategies for preventing opioid overdose: what's working in the United States: an introduction for public heath, law enforcement, local organizations, and others striving to serve their community. Retrieved from http://www.cdc.gov/drugoverdose/pdf/pubs/2018-evidence-based-strategies.pdf
- Naumann, R. B., Durrance, C. P., Ranapurwala, S. I., Austin, A. E., Proescholdbell, S., Childs, R., ... & Shanahan, M. E. (2019). Impact of a community-based naloxone distribution program on opioid overdose death rates. Drug and alcohol dependence, 204, 107536. Retrieved from https://doi.org/10.1016/j.drugalcdep.2019.06.038.

CHILD AND FAMILY SUPPORT

CHILD AND FAMILY SUPPORT PRIORITY 1

Develop interagency processes to support families impacted by OUD/SUD.

- Fleegler, E. W., Bottino, C. J., Pikcilingis, A., Baker, B., Kistler, E., & Hassan, A. (2016). Referral system collaboration between public health and medical systems: a population health case report. NAM Perspectives. Retrieved from http://nam.edu/wpcontent/uploads/2016/05/Referral-System-Collaboration-Between-Public-Health-andMedical-Systems-A-Population-Health-Case-Report.pdf.
- Leitch, L. (2017). Action steps using ACEs and trauma-informed care: a resilience model. Health & justice, 5(1), 5. Retrieved from https://doi.org/10.1186/s40352-017-0050-5

CHILD AND FAMILY SUPPORT PRIORITY 2

Implement and monitor best practices to prevent family disruption and/or enable family reunification.

- Murphy, A. L., Harper, W., Griffiths, A., & Joffrion, C. (2017). Family reunification: A systematic review of interventions designed to address co-occurring issues of child maltreatment and substance use. Journal of public child welfare, 11(4-5), 413-432. doi:10.1080/15548732.2017.1340221Anderson, L., Ringle, J. L., Ingram, S. D., Ross, J. R., & Thompson, R. W. (2017). Care coordination services: A description of an alternative service model for at-risk families. Journal of evidence-informed social work, 14(4), 217-228. doi:10.1080/23761407.2017.1306731
- Milligan, K., Meixner, T., Tremblay, M., Tarasoff, L. A., Usher, A., Smith, A., ... & Urbanoski, K. A. (2019). Parenting interventions for mothers with problematic substance use: a systematic review of research and community practice. Child maltreatment, 1077559519873047.
- Schor, E. L. (2019). Ten essential characteristics of care coordination. JAMA pediatrics, 173(1), 5-5. doi:10.1001/jamapediatrics.2018.3107

CHILD AND FAMILY SUPPORT PRIORITY 3

Educate the Community at Large about the effects of OUD/SUD on children and families and about impact in the Roanoke Valley.

- Kelly, A., Rahman, M., Tam, V., & Montgomery, A. (2019, November). Building resilience on the neighborhood level: Reducing overdose by investing in social support. In APHA's 2019 Annual Meeting and Expo (Nov. 2-Nov. 6). American Public Health Association.

CHILD AND FAMILY SUPPORT PRIORITY 4

Expand supportive networks and physical spaces for children and families impacted by active OUD/SUD).

- Normile, B., Hanlon, C., & Eichner, H. (2018). State strategies to meet the needs of young children and families affected by the opioid crisis. The National Academy for State Health Policy: Washington, DC, USA.

RECOVERY

RECOVERY PRIORITY 1

Educate multiple stakeholders, prioritizing businesses that are open to hiring people in recovery, about the many paths to recovery and the importance of coordinated care.

- Best, D., Irving, J., Collinson, B., Andersson, C., & Edwards, M. (2017). Recovery networks and community connections: Identifying connection needs and community linkage opportunities in early recovery populations. Alcoholism Treatment Quarterly, 35(1), 2-15. doi:10.1080/07347324.2016.1256718
- Sinakhone, J. K., Hunter, B. A., & Jason, L. A. (2017). Good job, bad job: The employment experiences of women in recovery from substance abuse. Work, 57(2), 289-295.

PRIORITY 2:
Build a roadmap for employers that provides information about how recovery can be mutually beneficial.

- Becton, A. B., Chen, R. K., & Paul, T. M. (2017). A second chance: Employers' perspectives in hiring individuals in addiction recovery. Journal of Applied Rehabilitation Counseling, 48(1), 6-15.
- David Best & Stephanie de Alwis (2017) Community Recovery as a Public Health Intervention: The Contagion of Hope, Alcoholism Treatment Quarterly, 35(3), 187-199. doi:10.1080/07347324.2017.1318647
- Dunn, E. C., Wewiorski, N. J., & Rogers, E. S. (2008). The meaning and importance of employment to people in recovery from serious mental illness: Results of a qualitative study. Psychiatric Rehabilitation Journal, 32(1), 59–62. Retrieved from https://doi.org/10.2975/32.1.2008.59.62

PRIORITY 3:
Establish and sustain dialogue with the insurance sector to increase coverage for recovery services.

- Saloner, B. (2017). An update on "Insurance coverage and treatment use under the Affordable Care Act among adults with mental and substance use disorders". Psychiatric Services, 68(3), 310-311.
- Hancock, C., Mennenga, H., King, N., Andrilla, H., Larson, E., & Schou, P. (2017). Treating the rural opioid epidemic. National Rural Health Association. Retrieved from https://www.ruralhealthweb.org/NRHA/media/Emerge-NRHA/Advocacy/Policy%20documents/2019-NRHA-Policy-Document-Treating-the-Rural-Opioid-Epidemic.pdf
- Clemans-Cope, L., Wishner, J. B., Allen, E. H., Lallemand, N., Epstein, M., & Spillman, B. C. (2017). Experiences of three states implementing the Medicaid health home model to address opioid use disorder-Case studies in Maryland, Rhode Island, and Vermont. Journal of substance abuse treatment, 83, 27-35.

PRIORITY 4:
Increase availability of recovery ("sober") housing and wraparound services.

- Mericle, A. A., Polcin, D. L., Hemberg, J., & Miles, J. (2017). Recovery housing: Evolving models to address resident needs. Journal of psychoactive drugs, 49(4), 352-361. doi:10.1080/02791072.2017.1342154
- Polcin, D. L., Korcha, R., Bond, J., Galloway, G., & Lapp, W. (2010). Recovery from addiction in two types of sober living houses: 12-month outcomes. Addiction research & theory, 18(4), 442-455. doi:10.3109/16066350903398460

- Polcin, D. L., & Korcha, R. (2017). Housing status, psychiatric symptoms, and substance abuse outcomes among sober living house residents over 18 months. Addictive disorders & their treatment, 16(3), 138.

PRIORITY 5:

Improve human resource policies to support recovery in the workplace.

- David Best, Tracy Beswick, Steve Hodgkins & Matt Idle (2016) Recovery, Ambitions, and Aspirations: An Exploratory Project to Build a Recovery Community by Generating a Skilled Recovery Workforce, Alcoholism Treatment Quarterly, 34(1), 3-14. doi:10.1080/07347324.2016.1113105
- Jennifer Harrison, Matthew J. Krieger & Hillary A. Johnson (2020) Review of Individual Placement and Support Employment Intervention for Persons with Substance Use Disorder, Substance Use & Misuse, 55(4), 636-643. doi:10.1080/10826084.2019.1692035
- LePage, J. P., Crawford, A. M., & Philippe, M. (2018). The association between time incarcerated and the search for employment in a veteran sample with substance use disorders. Psychiatric Rehabilitation Journal, 41(4), 328–335. Retrieved from https://doi.org/10.1037/prj0000322

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11. Virginia Department of Health. (2019). *Opioid Data: Neonatal Abstinence Syndrome (NAS).* Retrieved from http://www.vdh.virginia.gov/opioid-data/neonatal-abstinence-syndrome-nas/

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13. Kania, J., & Kramer, M. (2011). *Collective impact:* FSG.

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18. Substance Abuse and Mental Health Services (SAMHSA). (2018). *Selecting Best-fit Programs and Practices: Guidance for Substance Misuse Prevention Practitioners.* Retrieved from https://www.samhsa.gov/sites/default/files/ebp_prevention_guidance_document_241.pdf

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XI. APPENDIX

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