

Vermont Baseline Needs Assessment

Rural Practitioners and Stakeholders



Center on
Rural Addiction
UNIVERSITY OF VERMONT

Prepared by the Center on Rural Addiction
Surveillance & Evaluation Core
March 2021

Table of Contents

Executive Summary.....	3
Responses and Inclusion Criteria	5
Rural Practitioners.....	5
Rural Community Stakeholders	5
Rural County Location.....	6
Rural Practitioners.....	6
Rural Community Stakeholders	6
Work Setting & Role	7
Rural Practitioners.....	7
Rural Community Stakeholders	8
Rural Practitioner Waiver and Ability to Treat OUD.....	9
Rural Practitioner Concern About Treatment Adherence	10
Rural Practitioner Number of Patients	10
Concern About Substances.....	11
Rural Practitioners.....	11
Rural Community Stakeholders	12
Rural Practitioner Comfort Treating SUD	14
Rural Practitioner Training and Supports	16
Treatment Barriers.....	17
Rural Practitioners.....	17
Rural Community Stakeholders	19
Beliefs.....	20
COVID-19 Impact	24
Rural Practitioner UVM CORA Resource Requests.....	26
Rural Practitioner Ability to Provide Data for Evaluation Efforts	29
Most Important Improvement Needed.....	31
Share and Learn	33
Acknowledgements	34
Questions	34
Suggested Reference	34

Executive Summary

The mission of the University of Vermont (UVM) Center on Rural Addiction (CORA) is to expand addiction treatment capacity in rural counties by providing consultation, resources, training, and evidence-based technical assistance to healthcare practitioners and other staff. With our baseline needs assessment, we aim to identify current and future addiction treatment needs and barriers in rural Vermont counties with direct input from practitioners, policymakers, and other stakeholders working in rural communities. The online survey was conducted in two rounds: April 28 – May 31, 2020 and July 27 – August 31, 2020. This report includes responses from practitioners and community stakeholders working in rural counties (as designated by the Health Resources & Services Administration; HRSA).

Our respondents included 188 practitioners and 92 community stakeholders working in rural Vermont counties. The highest proportion of rural respondents was primary care (45%) and specialist (28%) physicians among practitioners, and fire department/emergency medical services workers (43%) among community stakeholders. Survey topics included concerns about substance use, comfort in treating substance use disorders (SUD), training/support needs, practitioner and patient barriers to treatment, beliefs about addiction, impact of COVID-19, and the UVM CORA resources which may be of interest and assistance to practitioners.

When asked about their concerns regarding substance use among their patients, rural practitioners' greatest concerns were related to tobacco products, alcohol, and the combination of opioids and alcohol. When asked about their concerns regarding substance use in their community, rural community stakeholders rated fentanyl, heroin, and the combination of opioids and alcohol as their substances of greatest concern. Rural practitioners with waivers to prescribe buprenorphine expressed greater concern regarding the use of all substances relative to non-waivered rural practitioners.

Rural practitioners overwhelmingly endorsed lack of time, transportation, and other supports (81%) among the top-three barriers to their patients receiving treatment for opioid use disorder (OUD). They also identified time/staffing constraints (59%) and possible medication diversion (55%) as barriers practitioners face in treating patients with OUD. Rural community stakeholders reported a variety of responses when asked about barriers to OUD treatment in their communities, including challenges related to adherence to treatment requirements (44%), lack of care coordination (40%), and treatment accessibility (40%).

Rural practitioners in Vermont reported a moderate level of comfort in treating patients with OUD and lower comfort with treating special populations (families, adolescents, and pregnant patients). Consistent with this, the UVM CORA resource most requested by rural practitioners was related to

training on treating SUD among special populations (69%). Other highly prioritized resources included training for SUD screening/assessments (64%), mentoring from other practitioners (64%), and training in manualized treatments for addressing conditions that often co-occur with OUD, such as tobacco use or stimulant use disorder (59%).

Given that our Vermont baseline needs assessment was conducted concurrently with the COVID-19 pandemic, we also included several questions on the impact of the pandemic on rural community substance use and treatment availability. Substantial proportions of rural practitioners (43%) and rural community stakeholders (53%) believed that substance use in their communities had increased since the start of the COVID-19 pandemic. In contrast, very few rural practitioners (2%) and community stakeholders (5%) believed that access to medications for opioid use disorder (MOUD) had increased.

Visit uvmcora.org to find more information about our baseline needs assessments in Vermont, Maine, New Hampshire, and New York, as well as resources and technical assistance on substance use treatment.

Abbreviations Used Throughout This Report

UVM CORA: University of Vermont Center on Rural Addiction

MOUD: Medications for opioid use disorder

OUD: Opioid use disorder

SUD: Substance use disorder

HRSA: Health Resources and Services Administration

This publication is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$10,365,921 with zero percentage financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

Responses and Inclusion Criteria

Rural Practitioners

We invited 1,462 Vermont practitioners to participate in our Vermont baseline needs assessment survey, which we administered in two rounds: the first (April 28 – May 31, 2020) reached mainly practitioners working in HRSA-designated rural counties (Figure 1) and the second (July 27 – August 31, 2020) mainly reached practitioners working in non-rural counties. This report focuses on practitioners working in rural counties. We received a list of all practitioners licensed in the state from the Vermont Department of Health. We then used the National Plan and Provider Enumeration System database to identify practitioners in roles with the opportunity to directly serve patients with OUD. Surveys were sent via email with reminders sent out weekly over the course of data collection. A total of 381 practitioners responded to the survey (response rate = 26%), 217 of whom reported working in rural counties. This sample of rural practitioners was not selected at random; rather, it was a convenience sample in which practitioners self-selected to participate. Eight retired practitioners and 21 practitioners who did not provide responses aside from general demographic information were excluded from analyses. Our final cohort of rural practitioners included 188 respondents. The majority ($n=165$, 88%) responded in the first round of surveys, with the remainder responding in the second round of surveys.



Figure 1. Map of HRSA-designated rural counties in Vermont (HRSA rural counties are depicted in green)

Rural Community Stakeholders

We invited 342 community stakeholders (people who interact with or provide services to persons with OUD through work in the community) to participate in our Vermont baseline needs assessment survey, during the first round of survey administration only. Invited community stakeholders included relevant staff at Vermont state agencies, healthcare organizations, and mental health and designated agencies; state legislators; and fire fighters and emergency medical services providers. A total of 100 community stakeholders responded to the survey (response rate = 29%). There were 97 responses from community stakeholders working in rural areas in Vermont. Three community stakeholders reported working in non-rural counties and were excluded from our analysis. Five did not provide responses aside from general demographic information, leaving 92 responses in our final cohort of rural community stakeholders, all included in this report.

Rural County Location

Rural Practitioners

Our responses included representation from all 11 of Vermont's rural counties (Table 1). We received only one response from a practitioner serving Essex County. Essex County has the smallest population of any rural county in the state, which may account for the low representation in this survey.

Table 1. Practitioner responses by rural Vermont county.

Work location (county)	Freq.	Percent
Addison	14	7.5
Bennington	22	11.7
Caledonia	14	7.5
Essex	1	0.5
Lamoille	9	4.8
Orange	6	3.2
Orleans	9	4.8
Rutland	25	13.3
Washington	30	16.0
Windham	17	9.0
Windsor	26	13.8
Multiple counties	15	8.0
Total	188	100

Rural Community Stakeholders

Similar to practitioners, representation among community stakeholders from all rural counties was generally reflective of their respective population sizes (Table 2).

Table 2. Community stakeholder responses by rural Vermont county.

Work location (county)	Freq.	Percent
Addison	5	5.4
Bennington	6	6.5
Caledonia	5	5.4
Essex	1	1.1
Lamoille	10	10.9
Orange	7	7.6
Orleans	4	4.4
Rutland	10	10.9
Washington	14	15.2
Windham	12	13.0
Windsor	9	9.8
Multiple counties	9	9.8
Total	92	100

Work Setting & Role

Rural Practitioners

Approximately half of rural practitioner respondents (n=188) reported working in community hospitals (27%) or Federally Qualified Health Centers/Rural Health Centers (24%) (Table 3).

Table 3. Rural practitioner work settings.

Practice/Work Setting	Freq.	Percent
Academic medical center	4	2.1
Addiction specialty treatment provider	7	3.7
Community hospital	51	27.1
Community mental health center	2	1.1
Federally Qualified Health Center or Rural Health Center	45	23.9
Hospital-owned practice	29	15.4
“Hub” opioid treatment program	1	0.5
Private practice	26	13.8
Other	23	12.2
Total	188	100

Approximately three-quarters of rural practitioner respondents who provided their professional roles (n=187) were either primary care physicians (46%) or specialist physicians (28%; Table 4). Most remaining rural respondents were physician assistants (16%), with relatively few responses from nurse practitioners (7%) and nurses (1%).

Table 4. Rural practitioner professional roles.

Professional role	Freq.	Percent
Nurse	2	1.1
Nurse practitioner	13	7.0
Primary care physician (MD, DO)	85	45.5
Physician assistant	29	15.5
Specialist physician (e.g., psychiatrist, addiction medicine)	53	28.3
Other	1	0.5
Multiple	4	2.1
Total	187	100

Of the 188 rural practitioner respondents, 161 provided their specialty (Table 5). The most common specialty was family medicine/general practice (39%). The remainder of rural practitioners were spread across a range of specialties including internal medicine (11%), pediatrics (11%), emergency care (11%), psychiatry (9%), obstetrics and gynecology (5%), and addiction medicine (4%).

Table 5. Practitioner specialties.

Specialty	Freq.	Percent
Addiction medicine	7	4.4
Family medicine/general practice	63	39.1
Obstetrics/gynecology	8	5.0
Internal medicine	18	11.2
Emergency/urgent care	17	10.6
Pediatrics	17	10.6
Psychiatry	14	8.7
Multiple/other	17	10.6
Total	161	100

Rural Community Stakeholders

Many of our rural community stakeholder respondents (n=91) reported working in fire departments or emergency medical service settings (43%; Table 6). There were also a notable number of respondents working in mental health agencies (15%).

Table 6. Community stakeholder work settings.

Work Setting	Freq.	Percent
Fire and/or emergency medical services	39	42.9
Child welfare/Department of Children & Families	4	4.4
Healthcare/hospital	5	5.5
Law enforcement (e.g., police, staff, state trooper)	1	1.1
Mental health/designated agencies	14	15.4
Public health/Department of Health	8	8.8
State legislator	9	9.9
Addiction specialty practice	5	5.5
Other	6	6.6
Total	91	100

Rural Practitioner Waiver and Ability to Treat OUD

Among rural practitioners that can prescribe medications (i.e., MD, DO, NP, PA; n=162), 41% reported having a waiver to prescribe buprenorphine to patients with OUD (Table 7). Among those who reported having a waiver to prescribe buprenorphine or being able to treat patients with OUD using MOUD (n=92), 63% of rural practitioner respondents indicated that they were currently treating patients with OUD (Table 8) using U.S. Food and Drug Administration-approved medications (e.g., methadone, buprenorphine, naltrexone).

Table 7. Current waiver status for prescribing buprenorphine among rural practitioners that can prescribe medications (i.e., MD, DO, NP, PA).

	Freq.	Percent
Waivered	66	40.7
Not Waivered	96	59.3
Total	162	100

Table 8. Rural practitioners currently treating patients with opioid use disorder (OUD) using U.S. Food & Drug Administration-approved medications for OUD (MOUD).

	Freq.	Percent
Treating OUD with medications	58	63.0
Not treating OUD with medications	34	37.0
Total	92	100

Among rural practitioners responding to the question “**In the last year, which medication do you primarily prescribe to treat patients with opioid use disorder? Select the one best response**” (n=55), the majority reported primarily prescribing buprenorphine (89%; Table 9). The remainder of responding rural practitioners (11%), none of whom were waivered to prescribe buprenorphine, reported primarily prescribing naltrexone. None of the respondents in this cohort of rural practitioners reported primarily prescribing methadone.

Table 9. Primary medication prescribed by rural practitioners currently treating patients with opioid use disorder (OUD) using U.S. Food & Drug Administration-approved medications for OUD (MOUD).

Medication primarily prescribed for OUD	Freq.	Percent
Buprenorphine	49	89.1
Naltrexone	6	10.9
Methadone	0	0.0
Total	55	100

Rural Practitioner Concern About Treatment Adherence

Among rural practitioners currently treating patients using MOUD who responded when asked about their concern (scale 0–10) regarding patients' non-adherence to their recommended treatment regimen (n=56), the average level of concern was moderate (mean score=4.9), though 20% reported a level of concern of 7 or higher (Figure 2). When asked how difficult it was to retain patients on MOUD (scale 0–10), rural practitioners currently treating patients using MOUD (n=57) rated this difficulty as low-to-moderate (mean score=4.1). Finally, among rural practitioners currently treating patients using MOUD (n=57), 86% reported that, on average, their patients stayed in treatment for six months or more.

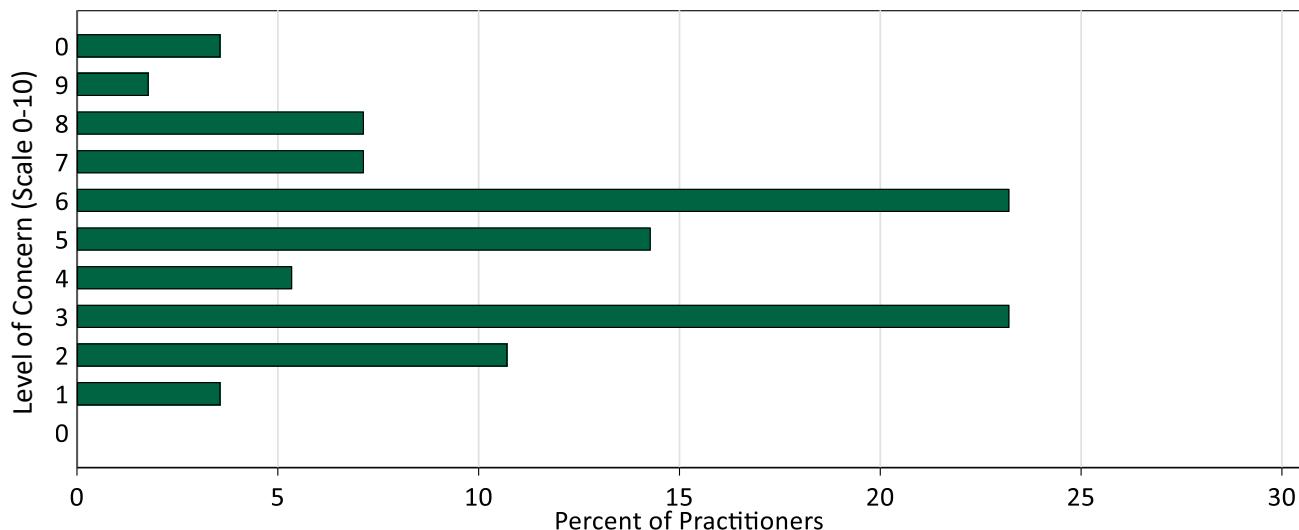


Figure 2. Concern regarding patient non-adherence to their recommended medication for opioid use disorder (MOUD) treatment regimen, among rural practitioners treating patients with MOUD (n=56).

Rural Practitioner Number of Patients: Total and Opioid Use Disorder Treatment

Rural practitioners currently treating patients using MOUD who responded when asked how many patients they treat (n=57) reported seeing an average of 52 patients each week for all reasons (Table 10). Rural practitioners who responded with the number of patients they treat using MOUD (n=54) reported treating an average of 47 patients with MOUD at a given time (Table 11), with a median of 20 patients. These data are right-skewed, with 30 practitioners (56%) serving 0-20 patients, 22 practitioners (41%) serving 21-150 patients, and two practitioners (4%) serving >150 patients, which is why the mean is higher than the median.

Table 10. Number of unique patients cared for each week by rural practitioners (for all reasons).

	N	Mean	Median	Minimum	Maximum
Rural practitioners currently treating patients with opioid use disorder (OUD)	57	52	50	5	125
All rural practitioners*	184	48	47	0	200

*Includes non-prescribers and non-respondents to, "Are you currently treating patients for OUD?"

Table 11. Number of patients being treated by rural practitioners (n=54) using medications for opioid use disorder (MOUD) at any one time.

	Mean	Median	Minimum	Maximum
MOUD patients	47	20	1	400

Concern About Substances

Rural Practitioners

When asked about their level of concern (scale 0–10) regarding a variety of different substances and substance combinations, rural practitioners reported the highest average levels of concern about tobacco (mean score=7.5), the combination of alcohol and opioids (mean score=7.1) and alcohol alone (mean score=7.0). Table 12 shows the levels of concern among all responding rural practitioners. Sample sizes differ somewhat between substances because not all practitioners provided a level of concern for every substance.

Figure 3 shows the comparison of levels of concern regarding the use of different substances between waivered (n=66) and non-waivered (n=96) rural practitioners. The differences were statistically significant (p -values <0.0013) for the five substances that had the largest differences between the two groups (heroin, fentanyl, methamphetamine, cocaine, and the combination of opioids and stimulants).

Table 12. Rural practitioners' levels of concern (scale 0–10) about substance use among patients.

Substance	N	Mean	Substance	N	Mean
Tobacco/e-cigarettes	183	7.5	Opioids + stimulants	176	6.0
Opioids + alcohol	178	7.1	Benzodiazepines	179	5.6
Alcohol	185	7.0	Prescription stimulants	177	5.5
Opioids + benzodiazepines	180	6.8	Cocaine	178	5.4
Prescription opioids	179	6.5	Methamphetamine	172	5.1
Fentanyl	175	6.3	Marijuana	181	5.0
Heroin	180	6.3	Other street drugs	175	4.7

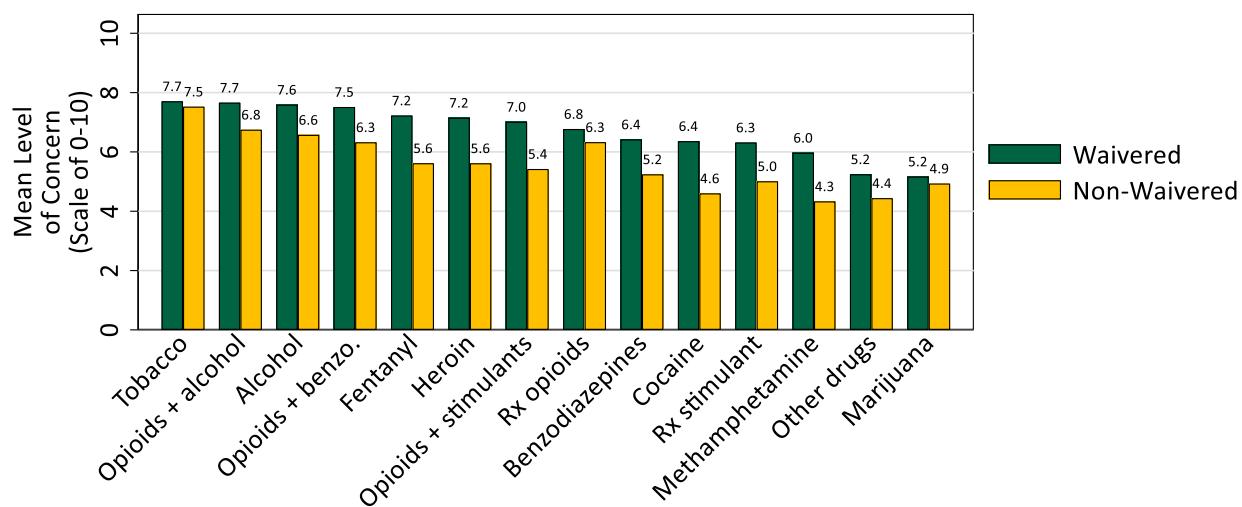


Figure 3. Average levels of concern regarding their patients' use of substances among practitioners currently waivered (sample size range: n=64–66) and not waivered (sample size range: n=84–93) to prescribe buprenorphine.

Rural Community Stakeholders

Table 13 shows the average levels of concern (scale 0–10) that rural community stakeholders reported about different substances. Rural community stakeholders were most concerned about fentanyl (mean score=8.0), heroin (mean score=7.6), and the combination of opioids with alcohol (mean score=7.6). Sample sizes differ somewhat between substances because not all rural stakeholders provided a level of concern for every substance.

Table 13. Rural community stakeholders' average levels of concern (scale 0–10) about substances in the communities in which they work.

Substance	N	Mean	Substance	N	Mean
Fentanyl	90	8.0	Cocaine	90	6.3
Heroin	91	7.6	Tobacco/e-cigarettes	89	6.3
Opioids + alcohol	91	7.6	Methamphetamine	89	6.2
Prescription opioids	91	7.2	Prescription stimulants	91	5.9
Alcohol	90	7.0	Marijuana	86	5.7
Opioids + stimulants	91	7.0	Benzodiazepines	89	5.6
Opioids + benzodiazepines	91	6.8	Other street drugs	86	5.5

Figure 4 shows the distribution of average levels of concern about substances among all rural practitioners and community stakeholders. Rural community stakeholders generally had higher levels of concern about substances that cause overdoses compared to rural practitioners. Using a conservative cutoff p-value of $p<0.01$, to account for multiple comparisons, rural community stakeholders were significantly more concerned about heroin ($p<0.0005$), fentanyl ($p<0.0005$), the combination of opioids and stimulants ($p=0.009$), and methamphetamine ($p=0.005$) than rural practitioners. Conversely, rural practitioners were significantly more concerned about tobacco/e-cigarettes than rural community stakeholders ($p<0.0005$).

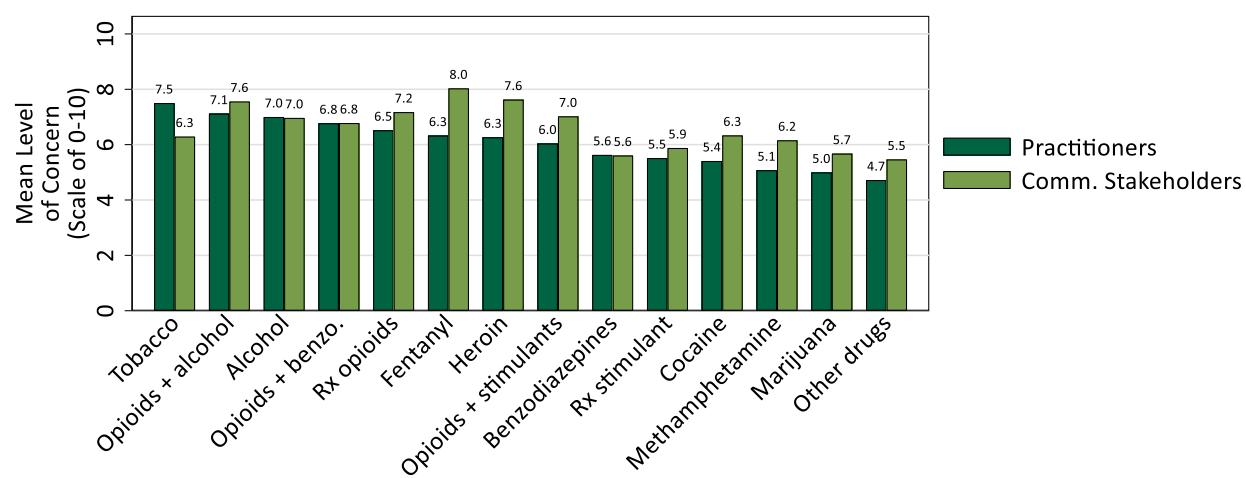


Figure 4. Average levels of concern among practitioners (sample size range: n=175–185) and community stakeholders (sample size range: n=86–91) about substance use among the patients and communities with whom they work.

Figure 5 shows the distribution of average concern levels about substances among rural community stakeholders working in fire, EMS, and police settings compared to rural community stakeholders working in all other settings. Rural community stakeholders working in fire, police, and EMS settings had lower levels of concern about each substance than stakeholders working in other settings. Using a conservative cutoff p-value of $p<0.01$ to account for multiple comparisons, rural community stakeholders working in fire, EMS, and police settings were significantly less concerned than community stakeholders working in other settings about alcohol ($p=0.0007$), fentanyl ($p=0.0008$), cocaine ($p=0.004$), and benzodiazepines ($p=0.0007$), and the combinations of opioids and alcohol ($p<0.0005$), opioids and benzodiazepines ($p=0.002$), and opioids and stimulants ($p<0.0005$).

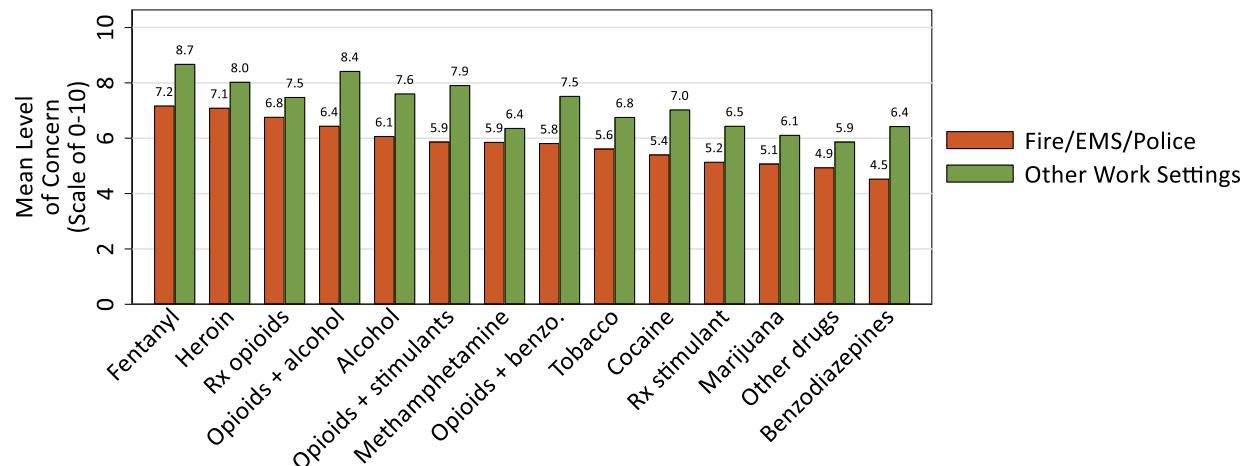


Figure 5. Average levels of concern among rural community stakeholders working in fire, EMS, and police settings (sample size range n=37–40) and all other stakeholder work settings (sample size range n=48–52) about substance use among the patients and communities with whom they work.

Rural Practitioner Comfort Treating SUD

When asked about their comfort in treating patients with OUD (scale 0–10), rural practitioner respondents (n=178) had an average comfort level of 6.1 (Table 14). Rural practitioners with buprenorphine waivers reported significantly more comfort in treating patients with MOUD (mean score=7.7) than non-waivered rural practitioners (mean score=5.0; p<0.0005).

Table 14. Comfort in treating opioid use disorder among rural practitioners, by buprenorphine waiver status.

Waiver Status	N	Mean
Waivered	66	7.7
Non-waivered	90	5.0
Total	156	6.1

Figure 6 shows the distribution of practitioners' level of comfort in treating patients with OUD among waivered (n=66) and non-waivered (n=96) rural practitioner respondents. Notably, there were a handful of rural non-waivered practitioners with high comfort levels, as well as waivered rural practitioners with low comfort levels.

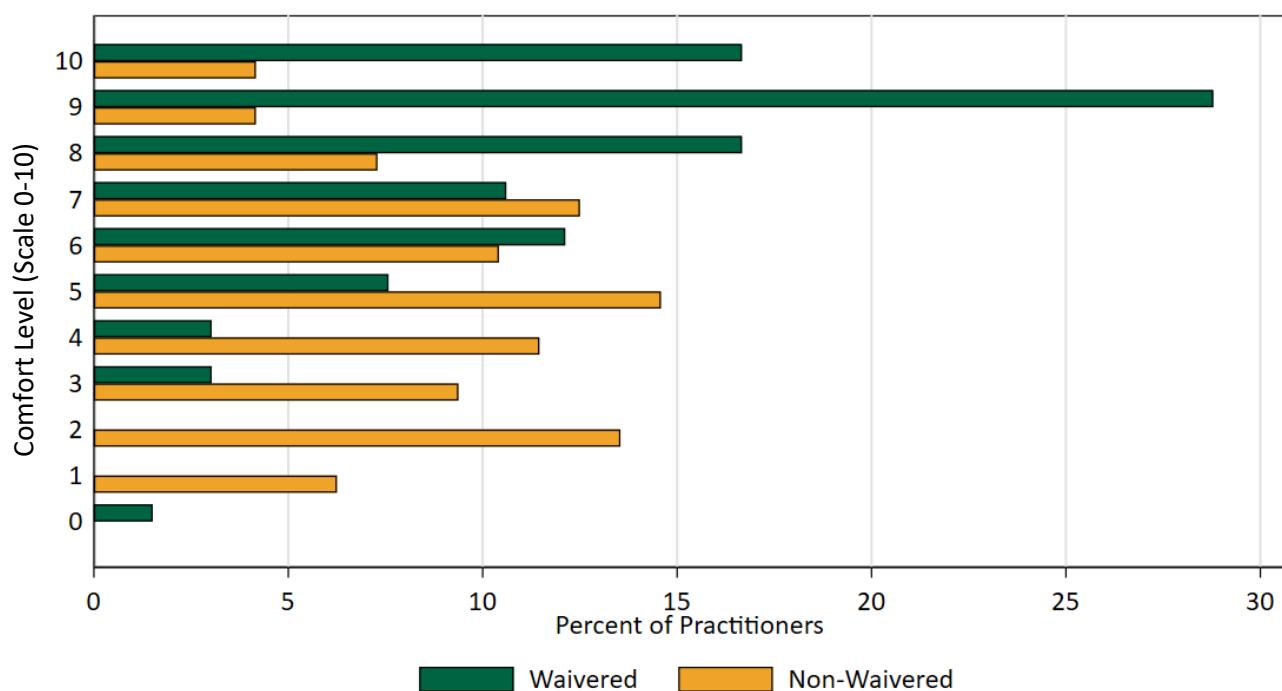


Figure 6. Comfort level in treating opioid use disorder among rural practitioners waivered (n=66) and not waivered (n=96) to prescribe buprenorphine.

When asked about their comfort level providing SUD services to special populations (i.e., older adults, adolescents, pregnant patients, and families), rural practitioners generally reported low levels of comfort. Figure 7 shows average comfort levels among waivered (n=65) and non-waived (n=88) rural practitioner respondents. Sample sizes vary somewhat because not all rural practitioners provided a comfort level for each special population. Waivered rural practitioners reported significantly higher comfort levels in treating older adults (mean score=6.9) than non-waived rural practitioners (mean score=4.8, $p<0.0005$). The majority (69%) of waivered rural practitioners ranked their comfort level in treating older adults as a 7 or higher, compared to 27% of non-waived rural practitioners. Waivered rural practitioners also had higher comfort levels treating pregnant patients (mean score=5.4) compared to non-waived rural practitioners (mean score=2.7, $p<0.0005$), with 48% of waivered rural practitioners ranking their comfort level as a 7 or higher, compared to 11% of non-waived rural practitioners. Waivered rural practitioners had slightly higher comfort scores (mean score=4.8) than non-waived rural practitioners (mean score=3.8) in delivering family-based interventions ($p=0.0346$). On average, both waivered (mean score=3.9) and non-waived (mean score=3.8) rural practitioners reported low comfort in caring for adolescents.

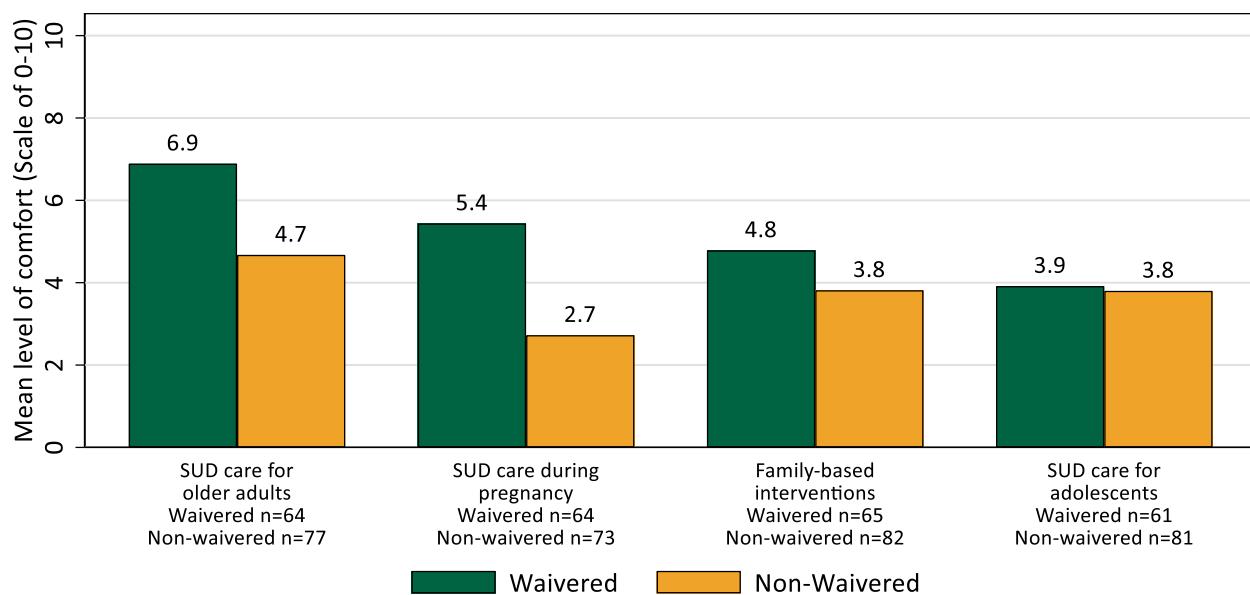


Figure 7. Rural practitioner comfort level in providing substance use disorder (SUD) services to special populations, by buprenorphine waiver status.

Rural Practitioner Training and Supports

We also asked practitioners about the degree to which they felt they had the training, experience, and support they needed to induct patients onto MOUD (scale 0–10). Rural practitioners responding to the question (n=81) had a mean self-rated training score of 5.9 (Table 15). Rural practitioners with buprenorphine waivers (n=62) had a mean score of 6.5. Among the non-waivered rural practitioners who reported being able to treat patients with OUD and who answered the question (n=19), the mean self-rated training, experience, and support score was significantly lower (mean=3.9, p<0.0005).

Table 15. Rural practitioner perception of having adequate training, experience, and support to induct patients on medications for opioid use disorder, by buprenorphine waiver status (scale 0–10).

Waiver Status	N	Mean
Waivered	62	6.5
Non-Waivered	19	3.9
Total	81	5.9

Figure 8 shows the distribution of self-rated training, experience, and support scores among waivered ($n=62$) and non-waivered ($n=19$) rural practitioner respondents. On average, waivered rural practitioners reported higher scores than non-waivered rural practitioners. Only 21% of non-waivered rural practitioner respondents considered themselves well-trained (7 or higher), compared to 53% of waivered rural practitioners. These data suggest that both waivered and non-waivered rural practitioners need additional support and training regarding treating patients with OUD.

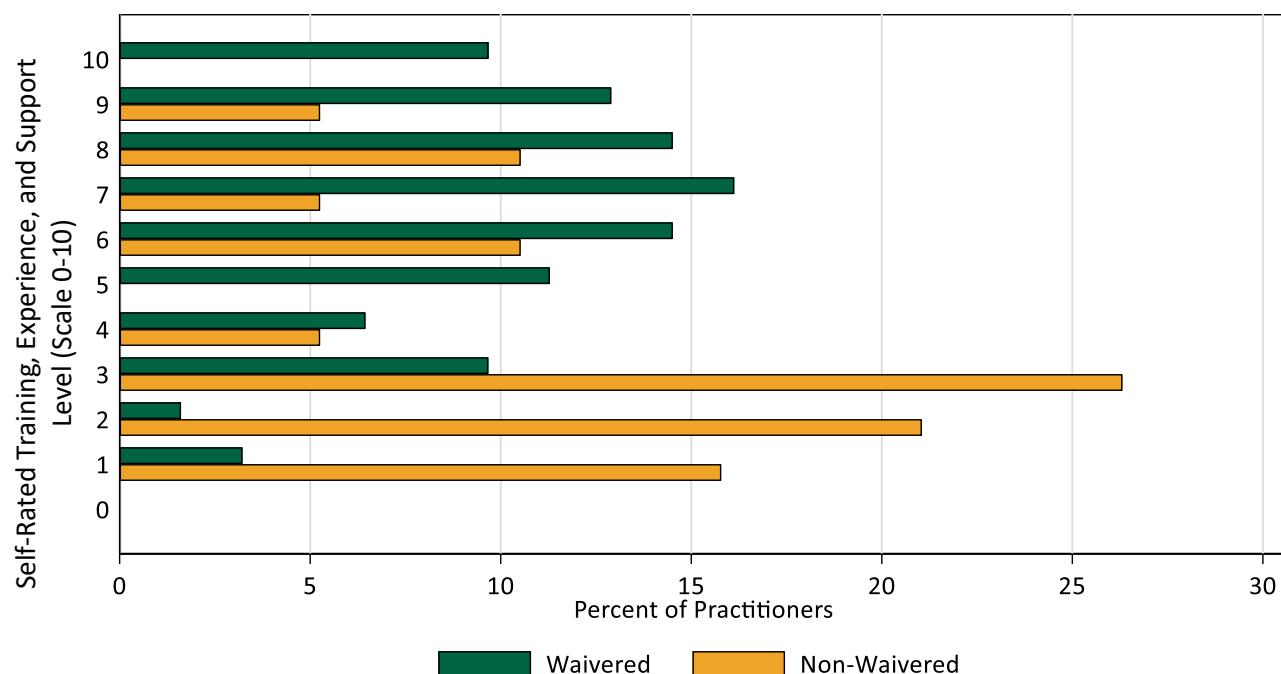


Figure 8. Perceptions of having adequate training, experience, and supports to induct patients on medications for opioid use disorder (MOUD), among rural practitioners currently waivered ($n=62$) and not waivered ($n=19$) to prescribe buprenorphine.

Treatment Barriers

Rural Practitioners

Practitioners were asked about their beliefs regarding practitioner- and patient-related barriers to treating and retaining patients in OUD treatment. Of the rural practitioner respondents ($n=176$), more than half listed time/staffing constraints (59%) and concerns about medication diversion (55%) among their top three barriers (Figure 9). Nearly half (48%) also reported concerns about managing patients with OUD as a top three barrier to treating patients with OUD.

Among rural practitioners currently treating patients for OUD (n=55), the majority also ranked medication diversion concerns (64%) and time/staffing constraints (62%) among their top three barriers to retaining patients in OUD treatment. Fewer than a quarter (22%) reported managing patients with OUD as a top barrier to retaining patients in OUD treatment.

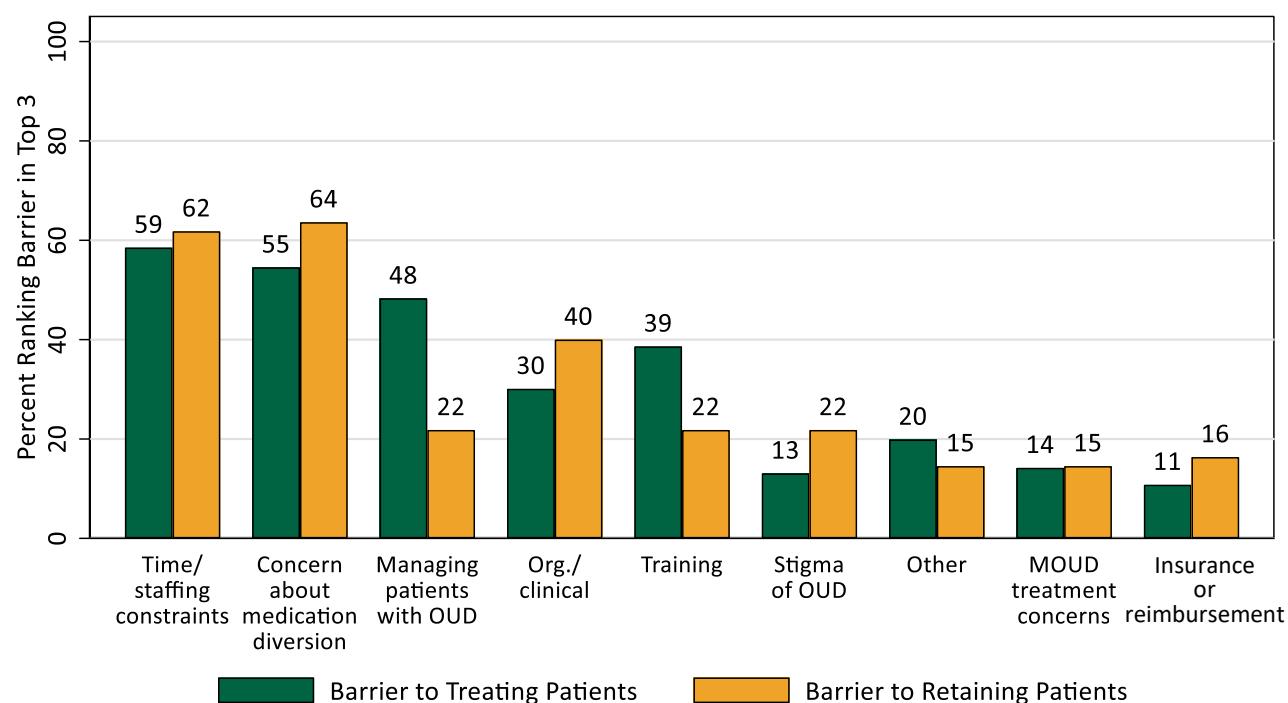


Figure 9. Rural practitioner-identified top barriers to their practices treating (n=176) and retaining (n=55) patients in opioid use disorder (OUD) treatment.

Figure 10 shows the distribution of patient-related barriers to receiving (n=178) and remaining in (n=170) OUD treatment, as reported by rural practitioners responding to the question. Lack of time, transportation, and other supports was identified by most practitioners as a top three barrier to patients receiving (81%) and remaining in (84%) treatment. Among those identifying a lack of time, transportation, and other supports as their primary concern for patients receiving treatment (n=70), 83% noted transportation or other access issues, 76% identified lack of social support, and 53% noted lack of time due to childcare and other needs as issues that applied to that barrier. Other barriers often listed as top three barriers included stigma of OUD (receiving treatment: 52%, remaining in treatment: 39%), concerns about treatment and co-occurring health issues (receiving treatment: 44%, remaining in treatment: 41%) and family/parenting demands (receiving treatment: 33%, remaining in treatment: 39%).

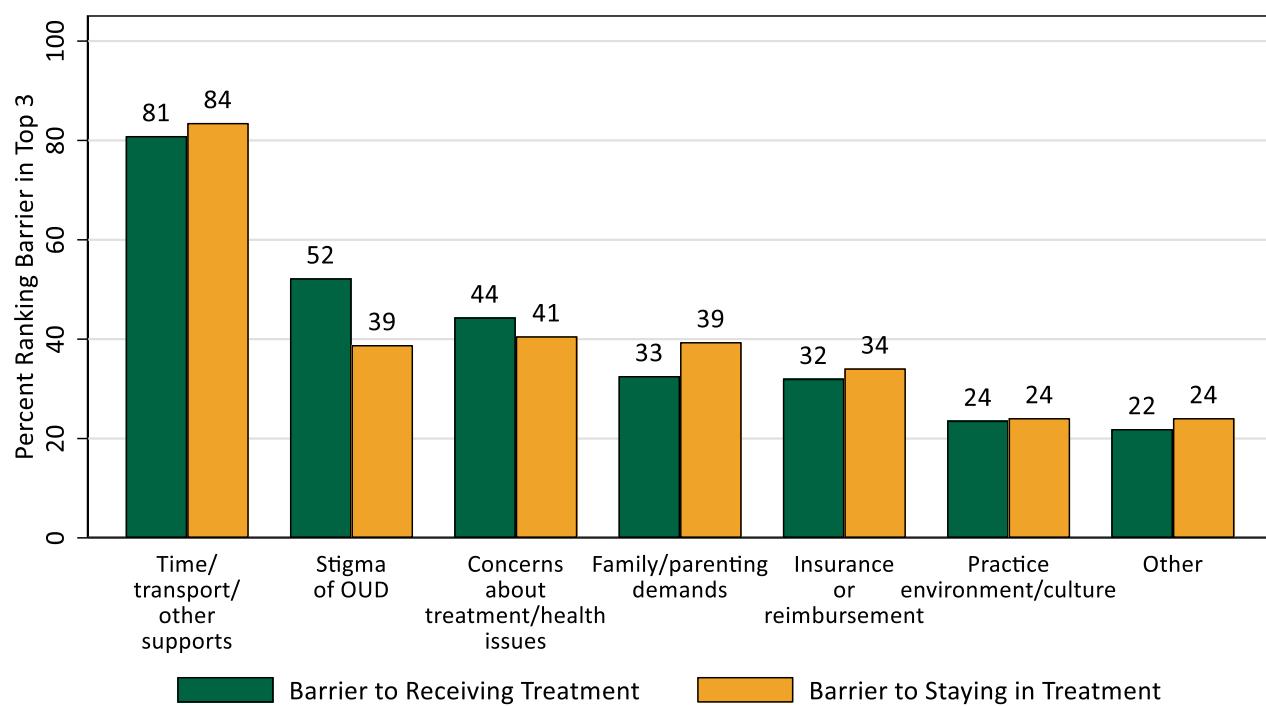


Figure 10. Rural practitioner-identified top barriers to patients receiving (n=178) and remaining in (n=170) opioid use disorder (OUD) treatment.

Rural Community Stakeholders

Rural community stakeholders were also asked about challenges to treating patients with OUD in the communities in which they work. Among rural community stakeholders who responded (n=87), many identified issues of medication adherence (44%), lack of care coordination (40%), and barriers to accessing treatment (40%) as key challenges facing their communities (Table 16). Notably, compared to rural practitioners, relatively few (16%) ranked medication diversion concerns as a primary challenge.

Table 16. Rural community stakeholder-identified challenges to treating patients with opioid use disorder (OUD) in their communities.

Challenge to treating patients with OUD	Freq.	Percent
Difficulty getting individuals to adhere to the requirements of their treatment	38	44
Not enough care coordination for individuals with complex needs (linkages to social supports/community resources)	35	40
Barriers to accessing treatment for patients (e.g., transportation, time, childcare)	35	40
Difficulty retaining individuals in treatment once they are enrolled (low retention)	31	36
Stigma of opioid use disorder	27	31
Not enough capacity to treat patients	22	25
Providers need more supports for treating OUD (training, resources, assistance with waiver process)	19	22
Concerns about diversion of treatment medications (methadone, buprenorphine)	14	16
Other challenges	10	11
Misconceptions of medications used to treat OUD (e.g., buprenorphine, methadone)	10	11
Insurance barriers (e.g., lack of coverage, prior authorization requirements, fail first requirements)	9	10
Administrative/organizational buy-in or support	4	5
Not enough administrative support for providers (billing, reimbursement, scheduling)	3	3
Pharmacy restrictions	2	2

Beliefs

Rural practitioners (sample size range: n=144–167) and rural community stakeholders (sample size range: n=78–86) reported the degree to which they agreed with statements about addiction and addiction treatment. We further break down the rural community stakeholder group into those working in fire, EMS, and police settings (sample size range: n=35–36) and those working in all other settings (n=50 for each question). Sample sizes vary somewhat between questions because not all respondents answered each question.

In response to the statement **“People in the community where I work have adequate access to an effective form of addiction treatment when they need it,”** approximately half of both rural practitioners (53%) and rural community stakeholders (45%) agreed or strongly agreed (Figure 11a).

Among rural community stakeholder respondents working in fire, EMS, and police settings, only 25% agreed or strongly agreed that people in their community had adequate access, compared to 60% of rural community stakeholders working in other fields (Figure 11b). Half (50%) of fire, EMS, and police respondents reported that they neither agreed nor disagreed with the statement.

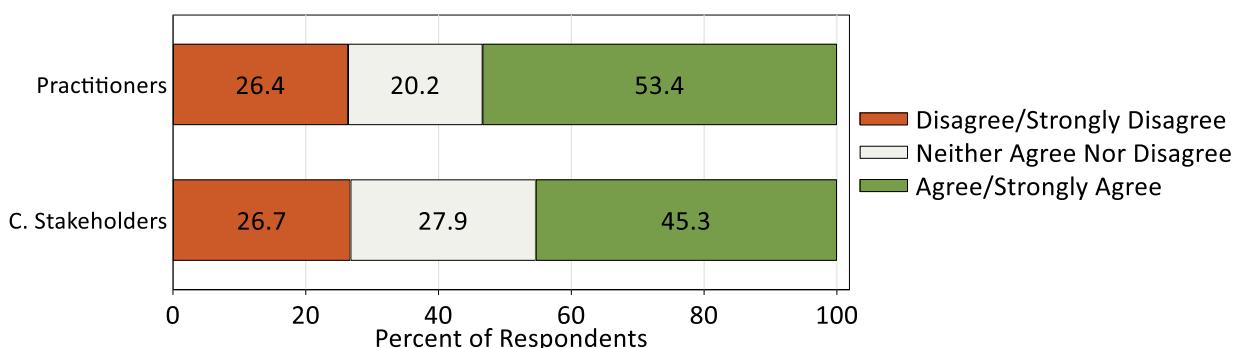


Figure 11a. Distribution of agreement among rural practitioners (n=163) and rural community stakeholders (n=86) with the statement “People in the community where I work have adequate access to an effective form of addiction treatment when they need it.”

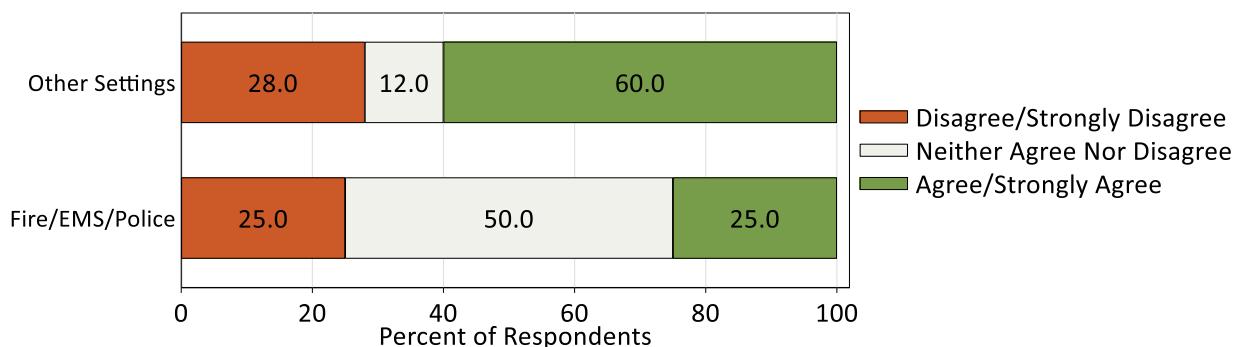


Figure 11b. Distribution of agreement among rural community stakeholders working in fire, EMS, and police settings (n=36) and rural community stakeholders working in all other settings (n=50) with the statement “People in the community where I work have adequate access to an effective form of addiction treatment when they need it.”

Most rural practitioners (79%) and community stakeholders (73%) agreed or strongly agreed with the statement, **“If a person came to me and confided that they were suffering from opioid addiction, I feel confident that I would know where to refer them for treatment”** (Figure 12a). Looking further at rural community stakeholders, approximately half (54%) of respondents working in fire, EMS, and police settings agreed or strongly agreed, compared to 86% of community stakeholders working in other fields (Figure 12b).

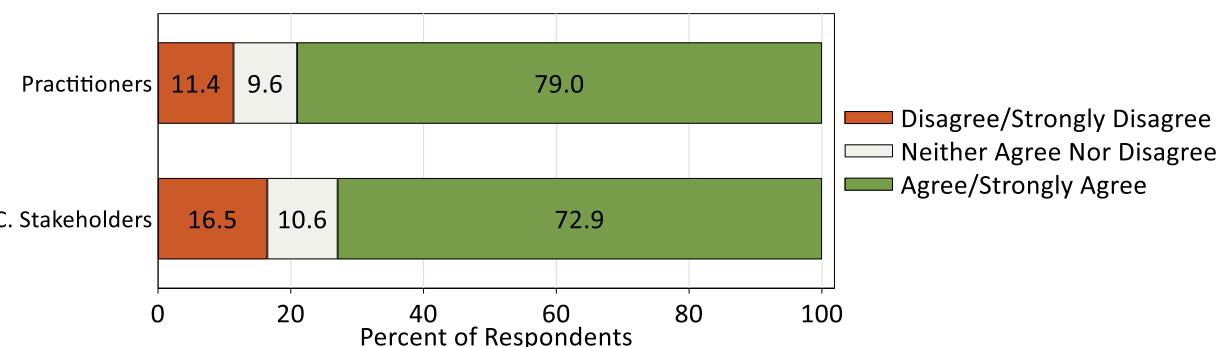


Figure 12a. Distribution of agreement among rural practitioners (n=167) and rural community stakeholders (n=85) with the statement “If a person came to me and confided that they were suffering from opioid addiction, I feel confident that I would know where to refer them for treatment.”

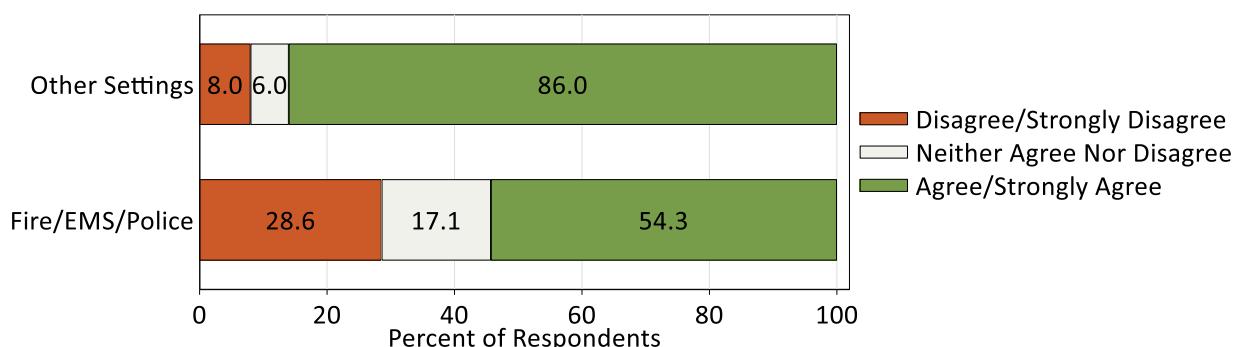


Figure 12b. Distribution of agreement among rural community stakeholders working in fire, EMS, and police settings (n=36) and rural community stakeholders working in all other settings (n=50) with the statement “If a person came to me and confided that they were suffering from opioid addiction, I feel confident that I would know where to refer them for treatment.”

A greater proportion of rural practitioners (68%) than rural community stakeholders (33%) agreed with the statement, **“Medications (like methadone and buprenorphine) are the most effective way to treat people with opioid use disorder”** (Figure 13a). Nonetheless, one-third of rural practitioners (32%) either disagreed, or neither agreed nor disagreed, with the statement. Among rural community stakeholders, nearly half (46%) chose ‘neither agree nor disagree.’

Looking further at rural community stakeholders, only 11% of respondents working in fire, EMS, and police settings agreed or strongly agreed that that MOUD is the most effective way to treat OUD (Figure 13b), while nearly half (46%) disagreed or strongly disagreed with the statement. In contrast, nearly half (48%) of rural community stakeholders in other roles agreed or strongly agreed with the statement, with another 48% neither agreeing nor disagreeing.

This knowledge gap presents an opportunity for education and outreach to rural practitioners and community stakeholders on the effectiveness of MOUD, particularly for rural community stakeholders working in fire, EMS, and police settings.

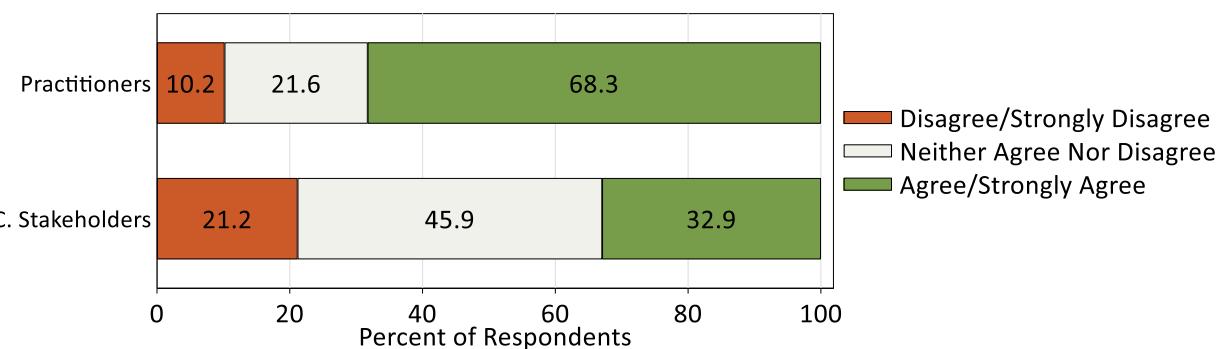


Figure 13a. Distribution of agreement among rural practitioners (n=167) and rural community stakeholders (n=85) with the statement “Medications (like methadone and buprenorphine) are the most effective way to treat people with opioid use disorder.”

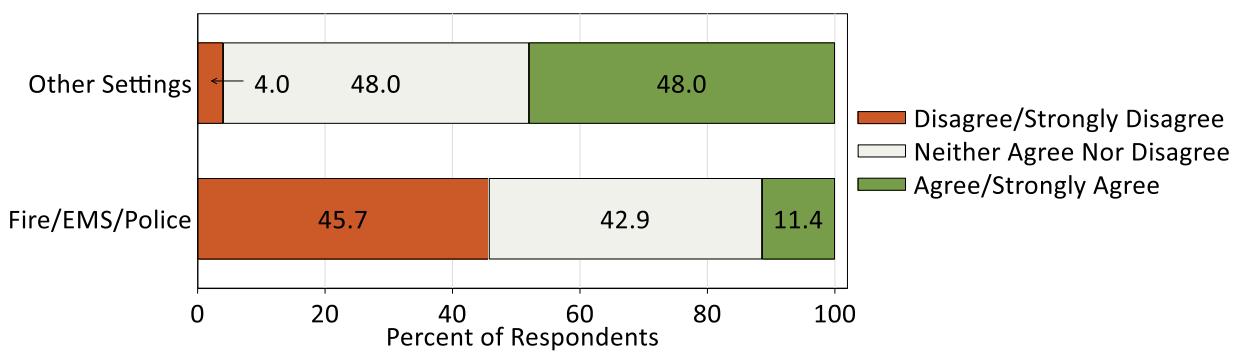


Figure 13b. Distribution of agreement among rural community stakeholders working in fire, EMS, and police settings (n=35) and rural community stakeholders working in all other settings (n=50) with the statement “Medications (like methadone and buprenorphine) are the most effective way to treat people with opioid use disorder.”

Both rural practitioners (49%) and rural community stakeholders (42%) tended to disagree with the statement, **“Medications given to treat people with opioid use disorder (such as methadone or buprenorphine) replace addiction to one kind of drug with another”** (Figure 14a). However, 28% of rural practitioners and 29% of rural community stakeholders agreed or strongly agreed with the statement.

In a test of association comparing buprenorphine waiver status against whether respondents agreed or disagreed with this statement, excluding those who chose “neither agree nor disagree,” a significantly higher proportion of waivered rural practitioners disagreed (90%) with the statement compared to non-waived rural practitioners (49%; Pearson’s Chi-square=18.05, p<0.0005).

Among rural community stakeholders working in fire, EMS, and police settings, fewer than a quarter (22%) disagreed or strongly disagreed with the statement that MOUD replaces addiction to one kind of drug with another (Figure 14b). In contrast, nearly two thirds of rural community stakeholders working in all other settings (60%) disagreed or strongly disagreed with the statement.

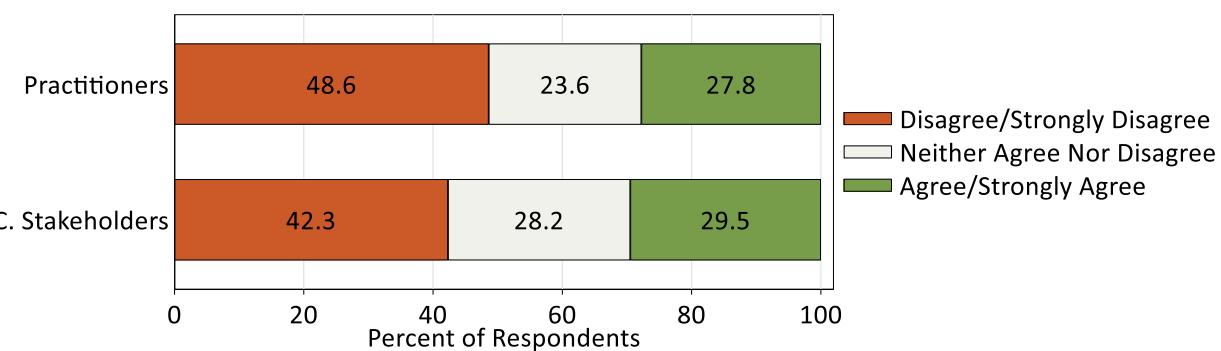


Figure 14a. Distribution of agreement among rural practitioners (n=144) and rural community stakeholders (n=78) with the statement “Medications given to treat people with opioid use disorder (such as methadone or buprenorphine) replace addiction to one kind of drug with another.”

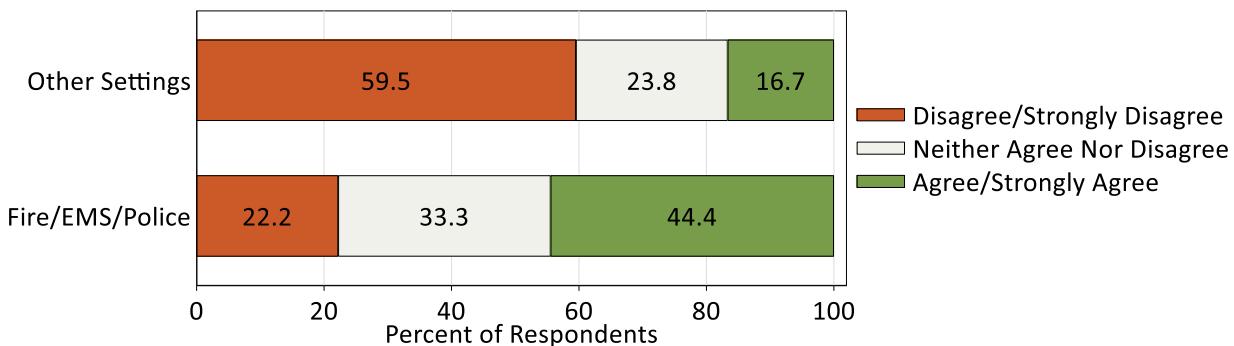


Figure 14b. Distribution of agreement among rural community stakeholders working in fire, EMS, and police settings (n=35) and rural community stakeholders working in all other settings (n=50) with the statement “Medications given to treat people with opioid use disorder (such as methadone or buprenorphine) replace addiction to one kind of drug with another.”

COVID-19 Impact

Rural Vermont practitioners and community stakeholders were also asked about their concern (scale 0–10) about the health of people in their practice or community in regard to the COVID-19 pandemic. Rural practitioner (n=166) and community stakeholder (n=84) respondents expressed high average levels of concern (means=7.5) (Table 17).

Table 17. Rural practitioner and rural community stakeholder levels of concern (scale 0–10) about the health of people in their practice/community regarding the COVID-19 pandemic.

	N	Mean
Practitioners	166	7.5
Community Stakeholders	84	7.5

Table 18 shows the perceptions of substance use during the COVID-19 pandemic among rural practitioner (n=169) and rural community stakeholder (n=87) respondents. About half of rural practitioners (43%) and community stakeholders (53%) reported that substance use had increased. Very few rural practitioners (4%) and community stakeholders (2%) reported that substance use had decreased during the COVID-19 pandemic.

Table 18. How has substance use changed since the COVID-19 pandemic began?

	Rural Practitioner		Rural Community Stakeholder		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Substance use increased	72	42.6	46	52.8	118	46.0
Substance use stayed same	26	15.4	17	19.5	43	16.8
Substance use has decreased	6	3.6	2	2.3	8	3.1
I don't know	58	34.3	19	21.8	77	30.1
Other	7	4.1	3	3.5	10	3.9
Total	169	100	87	100	257	100

Table 19 shows perceptions of changes in access to MOUD treatment during the COVID-19 pandemic among rural practitioner (n=169) and rural community stakeholder (n=87) respondents. Very few rural practitioners (2%) and community stakeholders (5%) thought that access to MOUD had increased. A quarter to a third of respondents in each group reported that access to MOUD had either stayed the same (rural practitioners: 33%; rural community stakeholders: 36%) or decreased (rural practitioners: 35%; rural community stakeholders: 25%).

Table 19. How has access to medications for opioid use disorder (MOUD) changed since the COVID-19 pandemic began?

	Rural Practitioner		Rural Community Stakeholder		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Access to MOUD increased	4	2.4	4	4.6	8	3.1
Access to MOUD stayed same	55	32.5	31	35.6	86	33.6
Access to MOUD decreased	59	34.9	22	25.3	81	31.6
I don't know	45	26.6	25	28.7	70	27.3
Other	6	3.6	5	5.8	11	4.3
Total	169	100	87	100	256	100

Rural Practitioner UVM CORA Resource Requests

Practitioners were asked “Which of the following resources available through the UVM Center on Rural Addiction would you like to learn more about for your own clinical practice?” (Figure 15). The most popular resources ranked as “high priority” by waivered rural practitioners who responded to the question (n=64) were support with vulnerable population management (72%), manualized training for co-occurring conditions (66%), mentoring from champion providers (66%), and extended-release buprenorphine medication and training (64%). Among non-waivered rural practitioner (n=86) respondents, the most popular resources were screenings and assessments for treatment needs (76%), support with vulnerable population management (66%), and mentoring from champion providers (63%). Descriptions of the available UVM CORA resources are provided in Table 20.

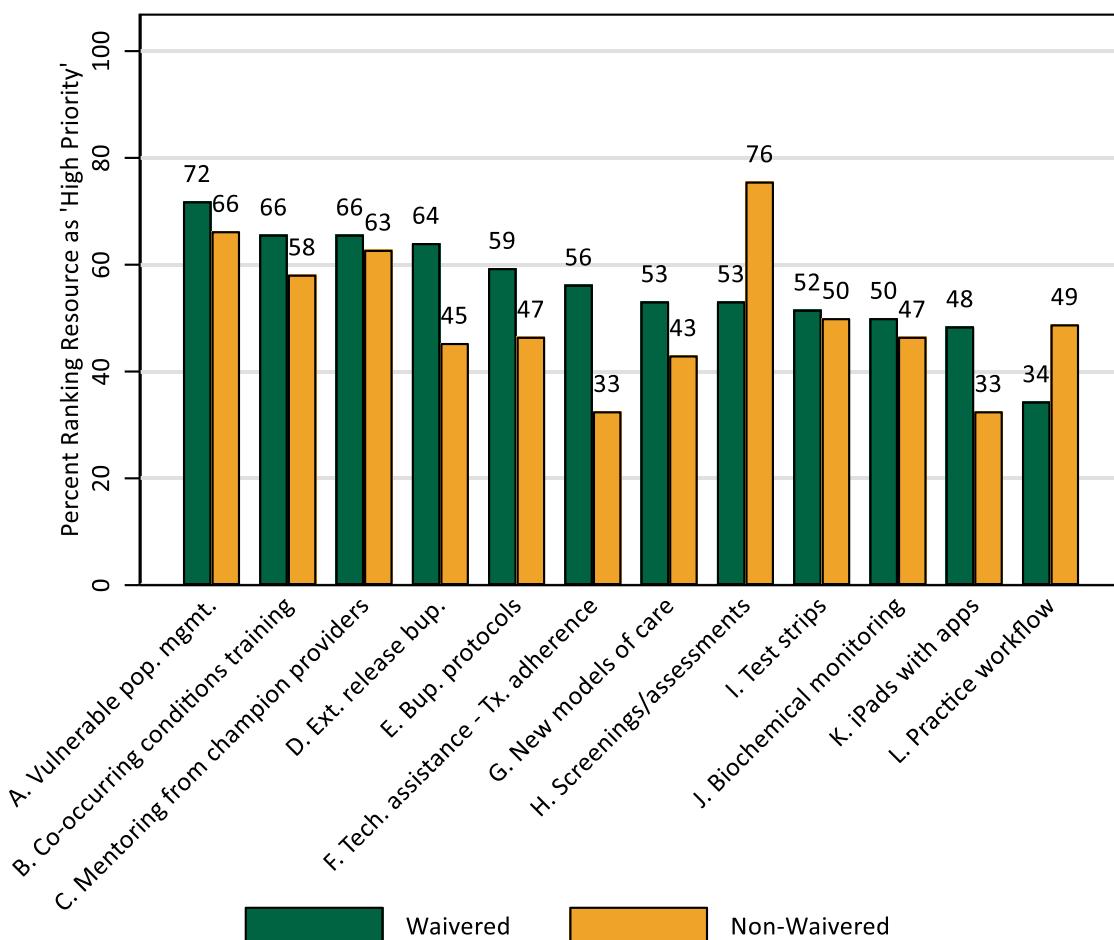


Figure 15. Percent of waivered (n=64) and non-waivered (n=86) rural practitioners indicating "high priority" interest in available UVM Center on Rural Addiction (UVM CORA) resources.

Table 20. Descriptions of UVM Center on Rural Addiction (UVM CORA) Resources.

Resource	Description
A. Vulnerable population management*	Support with managing and coordinating care for vulnerable populations (e.g., pregnant patients with SUDs, families, patients with co-occurring conditions)
B. Manualized trainings for co-occurring conditions*	Training in manualized treatments for addressing co-occurring conditions (i.e., smoking cessation, stimulant use, post-traumatic stress disorder)
C. Mentoring from champion providers*	Consultation & support from community "champion" providers (e.g., mentoring, coaching, consultations around complex patients, medication management)
D. Extended-release buprenorphine medication and training*	Providing medication & training on extended-release buprenorphine (e.g., monthly depot formulation) for potential use with patients
E. Buprenorphine protocols*	Protocols for buprenorphine induction, stabilization, maintenance, taper, etc.
F. Technical assistance on treatment adherence	Technology-assisted hardware & software to support opioid use treatment adherence in patients (e.g., portable computerized medication dispensers, interactive voice response system for making automated telephone calls to patients for clinical monitoring, random call backs, etc.)
G. New models of care	Consultations on new models of care for opioid use disorder treatment (e.g., hub-and-spoke model, buprenorphine initiation in the emergency department)
H. Screenings / assessments for treatment needs	Screening/assessments to help identify patients' substance use treatment needs
I. Fentanyl testing strips and intranasal naloxone	Providing fentanyl testing strips; intranasal naloxone (Narcan®) & materials on its use
J. Biochemical monitoring assistance	Help with biochemical monitoring of recent drug use (e.g., urine toxicology support, hand-held alcohol breath monitors, hand-held smoking monitors)
K. iPads with applications	iPads pre-loaded with automated apps on opioid overdose, HIV, Hepatitis C prevention that can be used by patients while waiting
L. Practice workflow consultation	Consultation on practice workflow or practical implementation of opioid treatment

*Rated as high priority by ≥50% of rural practitioners who responded to the question (n=170).

Figure 16 shows the responses among waivered (n=63) and non-waived (n=87) rural practitioner respondents to the question of how they would like to receive UVM CORA resources, trainings, and support to serve more patients with SUDs. The methods listed as most preferred among waivered practitioners were webinars and online trainings (68%) provider-to-provider consultations and support (67%), and in-person workshops with continuing medical education credits and food (67%). The most preferred methods among non-waived rural practitioners were provider-to-provider consultations and support (66%) and in-person workshops with education credits and food (59%).

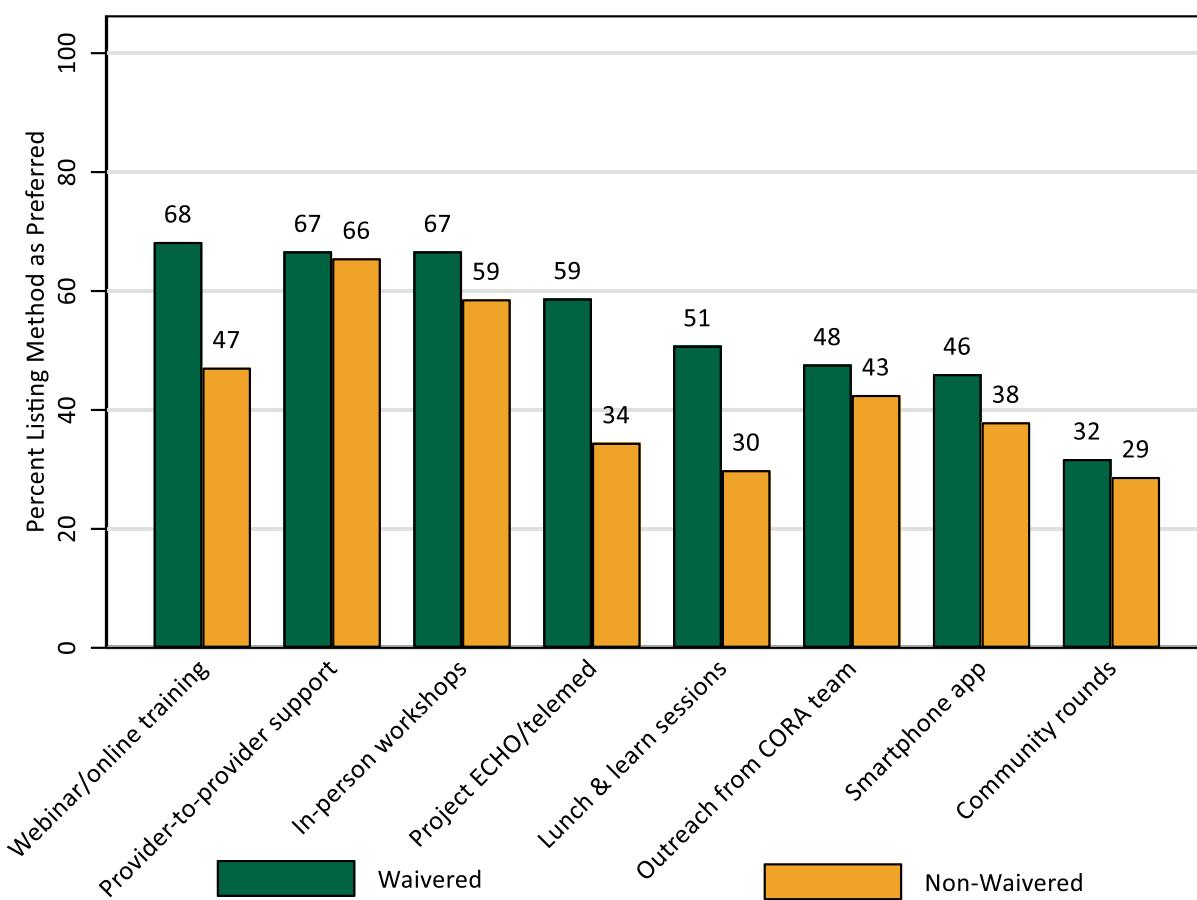


Figure 16. Preferred methods of receiving UVM Center on Rural Addiction (UVM CORA) resources and trainings among waivered (n=63) and non-waived (n=87) rural practitioners.

Figure 17 shows practitioner responses to the question “**What resources or services would help you to become waivered to prescribe buprenorphine?**,” which was asked only of practitioners who could prescribe medication (i.e., MD, DO, NP, PA) but did not have buprenorphine waivers at the time of the survey. Among the rural practitioners who responded to the question (n=81), 47% listed waiver training workshops on-site at their practices, and 46% listed provider-to-provider support as a high priority resource need. Over one-third (36%) of rural practitioners listed “other” resources as high priority, which included the need for time off from their practice and additional staff or time, as well as counseling, psychiatric, and social support for their patients.

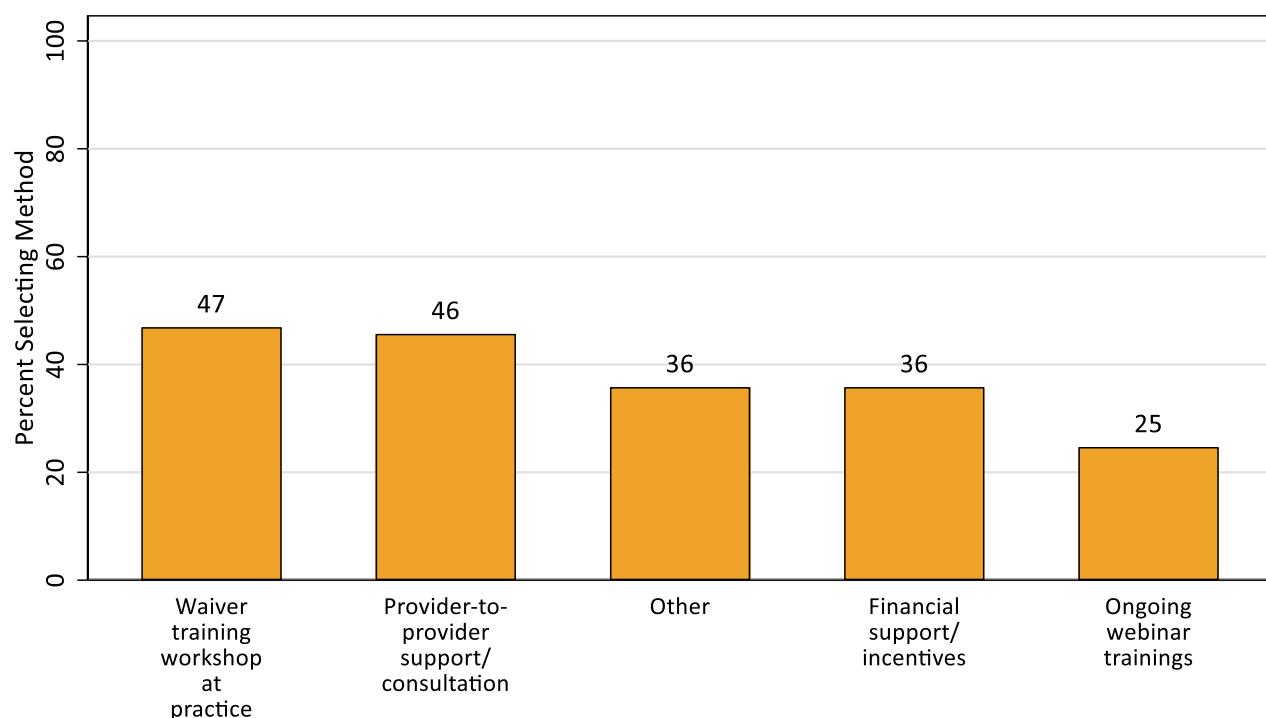


Figure 17. Selection by rural practitioners not currently waivered to prescribe buprenorphine (n=81) of University of Vermont Center on Rural Addiction (UVM CORA) resources in response to the question "What resources or services would help you to become waivered to prescribe buprenorphine?"

Rural Practitioner Ability to Provide Data for Evaluation Efforts

One of the services that UVM CORA provides is assistance with surveillance and evaluation efforts for practitioners. Among rural practitioners who responded to the question of what supports or resources they would need to be able to collect and share data with UVM CORA (n=143), 31% said data collection systems would be most helpful (Table 21). Fewer rural practitioners mentioned financial support (21%) and data entry assistance (22%) as the most helpful evaluation resources.

Table 21. Rural practitioner identified supports needed to collect and share data with the University of Vermont Center on Rural Addiction (UVM CORA).

	Freq.	Percent
Financial support	30	21.0
Help chart audit	7	4.9
Data entry	32	22.4
Data collection system	44	30.8
Other	30	21.0
Total	143	100

Additionally, rural practitioners were asked what data would be feasible for their practices to collect and share with UVM CORA. Figure 18 shows the different data types that waivered (n=53) and non-waived (n=57) rural practitioner respondents reported would be feasible to collect share as part of UVM CORA evaluation efforts. Most waivered rural practitioners noted that it was feasible to share the number of practitioners at their practice prescribing MOUD (92%), the number of patients they treated for OUD (91%) and the number of patients with OUD being treated with MOUD per practitioner (81%). A smaller proportion of non-waived rural practitioners reported that these evaluation items were feasible to collect. Notably, over half of non-waived rural practitioners (56%) reported that it was feasible to collect and share the numbers of practitioners and staff that were trained or received education on stigma reduction, opioid prescribing guidelines, mental health first aid, intranasal naloxone, or other OUD-related topics, compared to fewer than half of waivered rural practitioners (40%).

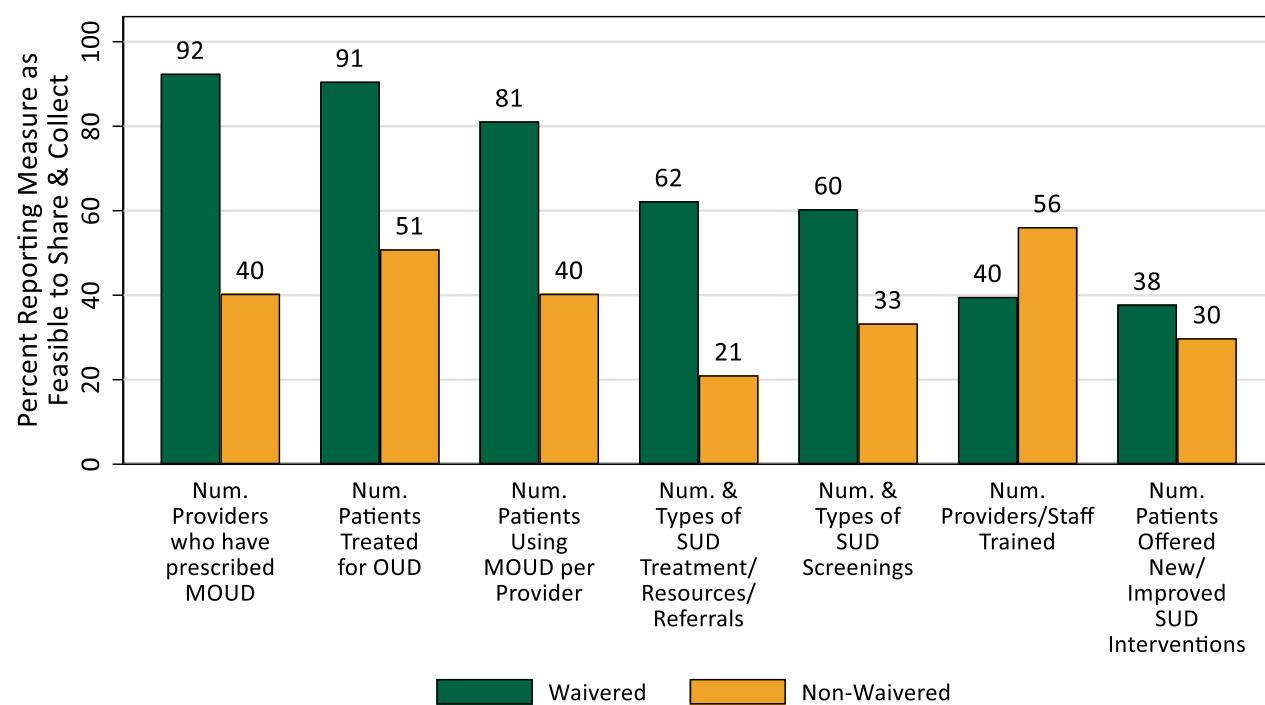


Figure 18. Percent of waivered (n=53) and non-waived (n=57) rural practitioners reporting evaluation measures as feasible to collect and share with the UVM Center on Rural Addiction (UVM CORA).

Most Important Improvement Needed

Rural practitioners and community stakeholders had varied responses to the question “**What would you recommend as the SINGLE most important improvement to increase access to opioid use disorder treatment in your community?**” Selected quotes are provided below.

Rural Practitioners

“Removal of requirements for DEA waivers so that we can treat as any other chronic disease.”

– Rural Practitioner (Caledonia County)

“More effective counseling and care for other psychiatric issues for those in recovery and continue this support during relapse. (Even if a PCP does not prescribe [buprenorphine]/methadone, they can treat other psych issues that are co-morbid but collaboration with treatment center is very difficult.)”

– Rural Practitioner (Bennington County)

“Continued coverage for telehealth and/or transportation support”

– Rural Practitioner (Addison County)

“Greater role from [state agencies] to require treatment of this chronic brain disease, like any other chronic disease.”

– Rural Practitioner (Orleans County)

Rural Community Stakeholders

“Better access to care...I know everyone is working hard, but I hear from many that they are “waiting” for treatment, or for admission to rehab, etc.”

– Rural Community Stakeholder (Fire/EMS, Lamoille County)

“Reduce Stigma and the social issues that these folks are facing, homelessness, poverty, racism”

– Rural Community Stakeholder (Public Health, Windham County)

“Mobile treatment providers that can provide access in rural areas”

– Rural Community Stakeholder (Social Services, Rutland County)

“Wholistic approach; recognition that it's not just about the “treatment”; individual's needing [treatment] are often also a partner, a parent, an employee, needing to pay bills - other life stressors”

– Rural Community Stakeholder (Social Services, Windsor County)

“Having treatment available locally to decrease transportation issues”

– Rural Community Stakeholder (Public Health, Lamoille County)

Share and Learn

Below are highlighted responses to the question “**Is there anything else you would like to share with us?**” from a rural practitioner and a rural community stakeholder.

Rural Practitioner

“Having a good MAT team has been extremely helpful. Having more than one provider in the clinic that provides Suboxone is helpful. We are working hard to educate other local clinics at how easy and rewarding this care can be.”

– Rural Practitioner (Caledonia County)

Rural Community Stakeholder

“The more funding in rural communities with professional support the better. There would be less turn over, and less barriers for people to get into immediate treatment, such as payments.”

*– Rural Community Stakeholder
(Addiction Specialty Practice, Lamoille County)*

Acknowledgements

We would like to thank the many Vermont practitioners and community stakeholders that participated in UVM CORA's Vermont baseline needs assessment. Their responses to our questions and their comments will help us as we continue to develop and improve our ability to support rural communities.

We would also like to thank our colleagues within UVM CORA. UVM CORA faculty, staff, and members of the Clinician Advisory Group in New Hampshire, Maine, and Vermont provided helpful suggestions and guidance as we were developing the questions for this baseline needs assessment and as we prepared this report. We look forward to continued collaboration as we produce further summaries of these data.

Questions

Please contact us at cora@uvm.edu with any questions or for more information.

Suggested Reference

University of Vermont Center on Rural Addiction (2021). *Vermont Baseline Needs Assessment: Rural Practitioners and Stakeholders*. Retrieved from: www.uvmcora.org.



Center on Rural Addiction
UNIVERSITY OF VERMONT