

Landscapes of Care Amid Crisis: Rural Opioid Harm Reduction Networks in Vermont

Abstract: According to the Center for Disease Control, the United States lost more than 70,000 people from opioid related fatalities in 2017 alone. As the federal government has been slow to respond to this crisis, local communities have assembled to form grassroots harm reduction networks to save the lives of their community members. Harm reduction is a set of strategies and practices that are aimed to reduce negative consequences associated with drug use and often take the form of needle exchanges, medication assisted treatment, and safe injection sites. The Vermont Department of Health reported that in 2018 there were 110 opioid related fatalities in the state. This number of opioid related deaths in the sparsely populated, rural landscape of just over 623,500 people has a profound impact on communities across Vermont. Vermont is unique among other states struggling with the opioid epidemic in its proven ability to mobilize. Vermont, the second least populated state in the union has the highest medication assisted treatment rate per capita in the entire U.S. (Brooklyn & Sigmon, 2017). This proposed research extends my UVM funded research conducted in summer 2019 that explores the social, health, and activist geographies of harm reduction and will directly engage with harm reduction communities through oral history methods to increase understanding of how the opioid epidemic, rurality, and harm reduction intersect in Vermont.

Description of the Project: In 2017, The Center for Disease Control reported that the United States lost more than 70,000 people from opioid related fatalities. Opioid related deaths have surpassed auto-related fatalities as the leading cause of death in the nation. The Vermont Department of Health reported that in 2018 there were 110 opioid related fatalities in the state. This number of opioid related deaths in the sparsely populated, rural state of just over 623,500 people has a profound impact on communities across Vermont. The introduction of prescription

painkillers and fentanyl laced heroin have left treatment centers and communities across the nation stunned by the inability to reduce opioid-related fatalities through abstinence-based recovery models.

With the government's inability to curb overdose deaths nationally, local communities have assembled to form grassroots, harm reduction networks to save the lives of their community members. Harm reduction is a set of strategies and practices that are aimed to reduce negative consequences associated with drug use. Examples of opioid harm reduction initiatives include clean needle exchanges, medication assisted treatment, and safe injection sites. Harm reduction is also recognized a social justice movement that acknowledges the rights and personhood of people who use drugs. The philosophy aims to meet individuals in their current condition or use, rather than pushing the widely accepted abstinence-based approach. Vermont is home to several public and privately funded harm reduction organizations that work to combat unnecessary harm and death from opioid drug use.

This research includes four components: 1) a comprehensive literature review of health geographies, geographies of care, the history of harm reduction and opioid addiction in the United States, and an analysis of the rural and urban dimensions of harm reduction programs; 2) an inventory of established formal and informal harm reduction programs and community-based responses within Vermont; 3) a collection of 12 - 20 oral histories with harm reduction practitioners and community members, addiction medicine doctors, rural emergency medical services, media reporters and artists, and governmental agents; 4) an online community-based harm reduction resource and oral history archive that will include maps, visualizations, and an interactive interface.

This research seeks to understand the spatial and social dimensions of the opioid harm reduction networks in Vermont while identifying the areas of existing need and continued success within Vermont's landscape of care. Specifically, this study asks: How do the spatial, social, and cultural aspect of Vermont's rurality affect the capacity for care of opiate use disorder? What is the current landscape of opiate harm reduction care available in the state? What are the social and operational networks that have created Vermont's response to the opiate epidemic, and how do they function? What are the barriers for care in different communities across the state? How do we trace the geographies of care and health in the opioid epidemic?

Previous Work: The emergence of the opioid epidemic in the United States has been brought about by several factors: a long of governmental policy resulting in the War on Drugs (Kamienski, 2016), the dramatic increase of prescribed opiate painkillers in the U.S. medical system, as advocated by pharmaceutical companies (Quinones, 2015), and a stigmatized, abstinence-based system of treatment (Maté, 2008) and incarceration. These forces have led to more than 400,000 opiate-related deaths between 1999 and 2017 (Murch, 2019). Work has been done to analyze the landscape and infrastructure of the opioid epidemic (Salkind, 2017) but little has been done to conceptualize harm reduction networks in relationship to the health geographies and the landscape of opiate use care.

The field of health geography explores the ways in which health, disease, and wellbeing interact with society, place, and space (Dummer 2008). Health geographies have worked to explore the spatial aspects of many health crisis in contemporary history including the AIDS epidemic (Hunter, 2010), climate change (Curtis & Oven, 2012), and gun violence (Papachristos, 2013). The subfield of geographies of care have evolved from its medical roots (Kearns & Moon, 2002) towards a social and emotional focus of place while also recognizing the gendered roles of

responsibility (Milligan & Power, 2007; Milligan, 2018; Dyck, 2003; Drummer, 2018; Curtis & Riva, 2010). Lawson (2007) builds on the geographies of health by tracing the spatial relationships of care and obligation through a lens of feminist ethic, which will work to provide a geographic perspective to the principles of harm reduction and landscapes of care (Milligan & Wiles, 2010).

Patricia Erickson's *Harm Reduction: A New Direction for Drug Policies and Programs* (1997) serves as a foundational applied and conceptual study on harm reduction and continues to impact public drug policies. Erickson's advocacy against the conventional abstinence approach to reduce drug related fatalities and crimes remains relevant in current research on the nationwide opioid epidemic. Several articles have been published in the last decade documenting opioid harm reduction strategies with the recent heightened access of Naloxone and medication assisted treatment (Inciardi & Harrison, 2002; Nadelmann & LaSalle, 2017; Wermeling, 2010).

Several medical practitioners and researchers have contributed to the contemporary literature surrounding rural-specific medication assisted treatment access and barriers (Pear et al., 2019; Sigmon, 2014; Andrilla et al., 2017), the spatial dimensions of opiate-treatment (Rosenblum et al., 2011; Rosenblatt et al., 2015), and analyses of the contemporary opiate crisis in a diverse array of rural communities across the United States (Thomas & Compton, 2007; Gale & Hansen, 2017; Hartley, 2004; Corsco & Townley, 2016). Much work has also been done in a comparative analysis of opiate use in urban and rural regions (Dunn et al., 2016; Pear et al., 2019; Tomas & Compton, 2007). Critical to this research is examining the impact of the rural dimensions of Vermont on the state's capacity for delivering care, harm reduction services, and medication assisted treatment. The field of rural health has long been discussed in comparison to urban medical services (Gesler & Rickettes, 1992). The "Seven Capitals Framework" has

commonly served as a mechanism to understand a community's social and cultural "capital" in relationship to its capacity for care (Flora et al., 2016; Saegert, 2001).

In 2014, then Vermont Governor Peter Shumlin used the entire duration of his State of the State address to speak to the mounting crisis of the opioid epidemic facing Vermonters. He discussed the effects of the crisis on families, the safety of citizens, and the capacity of law enforcement and medical practitioners to react. In recent years, Vermont has gained national attention with the state's notable Hub and Spoke model for harm reduction and medication assisted treatment (State of Vermont, 2019). Dr. John Brooklyn, the model's cited creator, has written extensively on its development, implementation, and success in the state (Brooklyn & Sigmon, 2017; Freese, 2018).

The opioid crisis in Vermont continues to be splayed across nearly every media outlet telling stories of current political and community action towards combatting deaths (Cengeri, 2018; Davis, 2018; Hirschfeld, 2018; Freese, 2018; Jickling, 2018; Simpatico, 2015), individual stories of recovery (O'Brien, 2013; O'Neill, 2019) or obituaries narrating a loved ones struggle with opiate addiction (O'Neill, 2018). The conversation of saving lives in this epidemic is at the forefront of discussion across the state. This project will draw on the existing literature on health geographies, harm reduction principles, rurality and opioid use disorder, and oral history methods to craft an empathetic, new perspective on Vermont's opioid crisis.

Proposed Methods: This research is the recipient of the 2019 UVM Green Mountain Scholar Award (funded by the Center for Research on Vermont) through Office of Fellowships, Opportunities, and Undergraduate Research (FOUR). This research is ongoing and is an extension of a UVM funded summer project. Eight oral histories have already been recorded. According to the policy defining activities which constitute research at the University of

Vermont, this work met criteria for operational improvement activities exempt from ethics review. this project does not require IRB review because it does not meet the definition of a "research" activity under the regulatory definition. According to 45 CFR 46.102(d), the definition of "research" is "a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge".

This research utilizes an interdisciplinary approach on the topic of opioid harm reduction by first considering insights from health geographies and place-based research, and then draws on oral history methods to produce a spatial and social analysis of networks and care. This research will use 1) oral history interviews, 2) semi-structured interviews with experts in their fields, 3) participant observation, and 4) textual analysis of popular media. I have chosen to incorporate oral histories rather than traditional anonymous research interviews because the practice of oral history directly engages with a community and individuals to tell their stories in an authentic and unabridged manner. Oral history is described by Mark Cave as a “methodology, with its patient, open ended approach and emphasis on empathy,” as it captures the experience of crisis by documenting the emotional, individual accounts of a significant event or trauma. By using oral history methods rather than anonymized interviews, these narrators and stories will provide a voice, experience, and identity to a highly stigmatized topic. Many scholars and oral historians have referred to oral history as a bottom-up approach to research (Hoffman 2018; Sommer & Quinlan 2018; Boyd 2014) that restores “power to the voiceless and the dispossessed” (Hoffman 2018, 75).

This research will utilize snowball sampling and contact building. Individuals will be contacted by email or phone number with a description of the project and request for interview. A consent document is given to all narrators and outlines how oral histories will be archived and

used, the option to anonymize their oral histories, and contact information for the University of Vermont and relevant research offices. Each participant will be sent their transcript and audio file of their oral history interview for their personal records. The semi-structured oral history interview questions will be presented in four stages based around Hoffman's (2018) oral history guide: 1) a foundational understanding of the narrator's identity, life, and positionality in relation to the opioid epidemic, 2) the narrator's specific perceptions and attitudes towards harm reduction, rural health, and the opiate crisis, 3) the narrator's local knowledge or expertise about topic, and finally, 4) their ideas of moving forward either through policy recommendations or future goals.

While conducting the oral histories, I will also take part in participatory observation through site visits and familiarizing myself with the spaces, organizations, and landscapes in which harm reduction initiatives take place. Detailed notes will be taken during each interview and site visit in my field notebook. The oral histories will be transcribed (using O Transcribe), edited for sound quality (using Audacity), and coded (using Dedoose) to analyze major themes. Once confirmation is received, the oral history collection will be archived through UVM Special Collections with the possibility of an online, public archive platform. Audio clips of the oral histories may be selected for example narrations for presentation purposes. Arc GIS will be used to visualize the spatial dimensions and networks of care in Vermont. This project will result in 1) a scholarly literature review and annotated bibliography, 2) visual representations of networks and resources, 3) an inventory of Vermont-based harm reduction initiatives, laws and organizations, and 4) 12-20 oral histories from health practitioners, nurses, advocates, harm reduction staff, media reporters, and state officials that will be archived with the University of Vermont Special Collections.

Positionality and Significance: My positionality, identity, and personal life experience are deeply entwined in this research project. I have a family member with a history of opiate use disorder, and I have personally been involved in harm reduction communities for several years. Although my relationship to this topic can be personally challenging to grapple with, I feel that it supports my connection with the narrators that I have worked with in this project. This research will contribute to the conversation on how the opioid epidemic, rurality, and harm reduction intersect in Vermont and potentially create the base for a larger research project that would engage more members of the state, incorporate spatial analysis, and produce an interactive, public online archive to share resources and community oral histories. It will add to a growing body of research on Vermont's pioneering efforts, and discussions in rural studies and health geographies about the unique needs and programming required to serve rural populations in crisis.

Table 1 – Research Project Timeline

Project Phase	Tasks and Goals
Project Development <i>February – March 2019</i>	<ul style="list-style-type: none"> Develop research questions and interview questions Create project budget and timeline, certify non-IRB research Apply for SURF funding through FOUR – Recipient of Green Mountain Award
Preliminary Research and Contact Building <i>June 10 – August 26, 2019</i>	<ul style="list-style-type: none"> Literature review focused on contemporary opiate epidemic, popular Vermont-based sources, and health geographies Focus on contact building, begin inventory of Vermont harm reduction services Begin oral history interviews (complete 6-8) and site visits
Research Phase I <i>Site visits and data collection</i> <i>August 26 - October 11, 2019</i>	<ul style="list-style-type: none"> Continue contact building, oral history interviews, site visits, participant observation Revise research questions, consider who is missing in collection of narrators Present research at UVM College of Arts and Sciences Alumni Weekend Secure archive platform with UVM Special Collections or Vermont Folklife Center
Research Phase II <i>Transcription & Data Analysis</i> <i>October 12 – November 22, 2019</i>	<ul style="list-style-type: none"> Complete the transcriptions of existing oral histories Edit sound quality for oral history audio clips Begin coding transcriptions and observational data analysis Reach out to all outstanding contacts and finish oral history interviewing
Research Phase III <i>November 23 – December 13, 2019</i>	<ul style="list-style-type: none"> Identify major themes in oral histories and observational data, revise research questions Continue contemporary popular source textual analysis
Research Phase IV <i>December 14 – January 13, 2020</i>	<ul style="list-style-type: none"> Compile relevant quotes, news sources, narrations, and observations for analysis Begin preliminary writing
Visualizations & Writing <i>January 14 – February 14, 2020</i>	<ul style="list-style-type: none"> Create visuals through Arc GIS and Adobe Illustrator Create ESRI Storymap and finalize archive platform, continue writing Follow up with contacts, invite to presentations
Writing and Presentation <i>February 15 – April 10, 2020</i>	<ul style="list-style-type: none"> Write senior honors thesis in Geography (full draft by 3rd week of March) Incorporate all visuals into final paper and presentations Send contacts and narrators copy of project/thesis Present research at AAG Conference (April 6-10, 2020) Present research at UVM Student Research Conference (April 2020)

References

- Arcury, T. A., Gesler, W. M., Preisser, J. S., Sherman, J., Spencer, J., & Perin, J. (2005). The Effects of Geography and Spatial Behavior on Health Care Utilization among the Residents of a Rural Region. *Health Services Research*, 40(1), 135–156. <https://doi.org/10.1111/j.1475-6773.2005.00346.x>
- Andrilla, C. H. A., Coulthard, C., & Larson, E. H. (2017). Barriers Rural Physicians Face Prescribing Buprenorphine for Opioid Use Disorder. *The Annals of Family Medicine*, 15(4), 359–362. <https://doi.org/10.1370/afm.2099>.
- Ballard, L. R. (2007). *History of Oral History: Foundations and Methodology*. Rowman Altamira.
- Boyd, D. A. (2014). *Oral History and Digital Humanities: Voice, Access, and Engagement*. Palgrave Macmillan US.
- Brooklyn, J. R., & Sigmon, S. C. (2017). Vermont Hub-and-Spoke Model of Care For Opioid Use Disorder: Development, Implementation, and Impact. *Journal of Addiction Medicine*, 11(4), 286–292. <https://doi.org/10.1097/ADM.0000000000000310>
- Cave, M., & Sloan, S. M. (2014). *Listening on the Edge: Oral History in the Aftermath of Crisis*. Oxford University Press.
- Cengeri, J. L., Ric. (January 2018). Are Safe Injection Sites Key To Curtailing Vermont Opioid Crisis? Retrieved February 24, 2019, from <https://www.vpr.org/post/are-safe-injection-sites-key-curtailing-vermonts-opioid-crisis>
- Corso, C., & Townley, C. (2016.). *Intervention, Treatment, and Prevention Strategies to Address Opioid Use Disorders in Rural Areas: A Primer on Opportunities For Medicaid-Safety Net Collaboration*. 28. Retrieved September 9, 2019 from <https://nashp.org/wp-content/uploads/2016/09/Rural-Opioid-Primer.pdf>.
- Curtis, S., & Riva, M. (2010). Health geographies I: Complexity theory and human health. *Progress in Human Geography*, 34(2), 215–223. <https://doi.org/10.1177/0309132509336026>
- Davis, M. (April 2018). Health Department Program Gives Fentanyl Testing Kits to Heroin Users. Retrieved February 27, 2019, from Seven Days website: <https://www.sevendaysvt.com/OffMessage/archives/2018/04/25/health-department-program-gives-fentanyl-testing-kits-to-heroin-users>
- DeVerteuil, G., & Wilton, R. D. (2009). The Geographies of Intoxicants: From Production and Consumption to Regulation, Treatment and Prevention. *Geography Compass*, 3(1), 478–494. <https://doi.org/10.1111/j.1749-8198.2008.00204.x>
- Dummer, T. J. B. (2008). Health geography: Supporting public health policy and planning. *Canadian Medical Association Journal*, 178(9), 1177–1180. <https://doi.org/10.1503/cmaj.071783>
- Dunn, K. E., Barrett, F. S., Yopez-Laubach, C., Meyer, A. C., Hruska, B. J., Petrush, K., Bigelow, G. E. (2016). Opioid Overdose Experience, Risk Behaviors, and Knowledge in Drug Users from a Rural Versus an Urban Setting. *Journal of Substance Abuse Treatment*, 71, 1–7. <https://doi.org/10.1016/j.jsat.2016.08.006>
- Dyck, I. (2003). Feminism and Health Geography: Twin tracks or divergent agendas? *Gender, Place & Culture*, 10(4), 361–368. <https://doi.org/10.1080/0966369032000153331>
- Epp, H. (January 2018). Hub-And-Spoke Architect: Program Like Inoculating Everybody With A Flu Shot; Retrieved July 22, 2019, from <https://www.vpr.org/post/hub-and-spoke-architect-program-inoculating-everybody-flu-shot>
- Flora, C.B., Flora, J.L., & Gasteyer, S.P. (2016). *Rural Communities: Legacy and Change*, 5th edition. Boulder: Westview Press.
- Freese, A. (January 2018). Dr. Yes: Vermont's Addiction Expert, John Brooklyn, Is in Demand. Retrieved February 27, 2019, from Seven Days website: <https://www.sevendaysvt.com/vermont/dr-yes-vermonts-addiction-expert-john-brooklyn-is-in-demand/Content?oid=11969243>
- Freese, A. (April 2018). Vermont Lawmakers Vote to Make Opioid Treatment Widely Available in Prison. Retrieved February 27, 2019, from Seven Days website: <https://www.sevendaysvt.com/OffMessage/archives/2018/04/26/vermont-lawmakers-vote-to-make-opioid-treatment-widely-available-in-prison>
- Gale, J. A., & Hansen, A. (2017). *Rural Opioid Prevention and Treatment Strategies: The*

- Experience in Four States*. 44.
- Gallalee, S. (2013). *Access to Treatment for Prescription Opioid Abuse. A Geographic Analysis of Vermont*. University of Vermont.
- Gesler, W. M., & Rickettes, T. C. (Eds.). (1992). *Health in Rural North America: The Geography of Health Care Services and Delivery*. New Brunswick and London: Rutgers University Press.
- Hartley, D. (2004). Rural Health Disparities, Population Health, and Rural Culture. *American Journal of Public Health*, 94(10), 1675–1678. <https://doi.org/10.2105/AJPH.94.10.1675>
- Hirschfeld, P. (January 2018). As Toll of Opioid Crisis Rises, Vermont Senate Considers Safe Injection Sites. Retrieved February 24, 2019, from <https://www.vpr.org/post/toll-opioid-crisis-rises-vermont-senate-considers-safe-injection-sites>
- Hirschfeld, P. (December 2018). Lawmakers Seek to Change A Child Welfare System Strained By Opioid Epidemic. Retrieved February 24, 2019, from <https://www.vpr.org/post/weve-got-crisis-lawmakers-seek-change-child-welfare-system-strained-opioid-epidemic>
- Hoffman, M. (2018). *Practicing Oral History to Improve Public Policies and Programs*. Routledge.
- Inciardi, J., & Harrison, L. (Eds.). (2000). *Harm Reduction: National and International Perspectives*. United States: SAGE Publications.
- Jickling, K. (March 2018). Safe Injection Sites? Medical Professionals, Law Enforcement Weigh In. Retrieved February 27, 2019, from Seven Days website: <https://www.sevendaysvt.com/OffMessage/archives/2018/03/29/safe-injection-sites-medical-professionals-law-enforcement-weigh-in>
- Kearns, R. A. (1997). Narrative and metaphor in health geographies. *Progress in Human Geography*, 21(2), 269–277. <https://doi.org/10.1191/030913297672099067>
- Kearns, R., & Moon, G. (2002). From medical to health geography: Novelty, place and theory after a decade of change. *Progress in Human Geography*, 26(5), 605–625. <https://doi.org/10.1191/0309132502ph389oa>
- Lawson, V. (2007). Geographies of Care and Responsibility. *Annals of the Association of American Geographers*, 97(1), 1–11. <https://doi.org/10.1111/j.1467-8306.2007.00520.x>
- Maté, G. (2008). *In the Realm of Hungry Ghosts: Close Encounters with Addiction*. Berkeley, California and Lyons, Colorado: North Atlantic Books and The Ergos Institute.
- Milligan, C. (2018). *Geographies of care space, place, and the voluntary sector*. Retrieved from <http://public.eblib.com/choice/PublicFullRecord.aspx?p=5231333>
- Milligan, C., & Power, A. (2009). The changing geography of care. In T. Brown, S. McLafferty, & G. Moon (Eds.), *A Companion to Health and Medical Geography* (pp. 567–586). Retrieved from <https://eprints.soton.ac.uk/344702/>
- Milligan, C., & Wiles, J. (2010). Landscapes of care. *Progress in Human Geography*, 34(6), 736–754. <https://doi.org/10.1177/0309132510364556>
- Mohlman, M. K., Tanzman, B., Finison, K., Pinette, M., & Jones, C. (2016). Impact of Medication-Assisted Treatment for Opioid Addiction on Medicaid Expenditures and Health Services Utilization Rates in Vermont. *Journal of Substance Abuse Treatment*, 67, 9–14. <https://doi.org/10.1016/j.jsat.2016.05.002>
- Murch, D. (2019, April 9). How Race Made the Opioid Crisis. Retrieved September 2, 2019, from Boston Review website: <http://bostonreview.net/forum/donna-murch-how-race-made-opioid-crisis>
- Nadelmann, E., & LaSalle, L. (2017). Two steps forward, one step back: Current harm reduction policy and politics in the United States. *Harm Reduction Journal*, 14(1). <https://doi.org/10.1186/s12954-017-0157-y>
- O'Brien, B. (2013). *The Hungry Heart*. Retrieved from <https://libauxilliary.uvm.edu/media/collections/videos/kingdomcounty/hungryheartmainmovie.mp4>
- O'Neill, K. (October 2018). Obituary: Madelyn Linsenmeir, 1988–2018. Retrieved September 12, 2019, from Seven Days Website: <https://www.sevendaysvt.com/vermont/madelyn-linsenmeir-1988-2018/Content?oid=21797604>

- O'Neill, K. (February 2019). Evolution of an Epidemic: A Timeline of the Vermont Opioid Crisis. Retrieved February 24, 2019, from Seven Days website: <https://www.sevendaysvt.com/vermont/evolution-of-an-epidemic-a-timeline-of-the-vermont-opioid-crisis/Content?oid=25605835>
- O'Neill, K. (June 2019). Between a "Hub" and a Hard Place: Three Stories of Opioid Addiction in Rural Vermont. Retrieved July 2, 2019, from Seven Days website: <https://www.sevendaysvt.com/vermont/between-a-hub-and-a-hard-place-three-stories-of-opioid-addiction-in-rural-vermont/Content?oid=27660484>
- Pain, R. (2004). Social geography: Participatory research. *Progress in Human Geography*, 28(5), 652–663. <https://doi.org/10.1191/0309132504ph511pr>
- Papachristos, A. V., Hureau, D. M., & Braga, A. A. (2013). The Corner and the Crew: The Influence of Geography and Social Networks on Gang Violence. *American Sociological Review*, 78(3), 417–447. <https://doi.org/10.1177/0003122413486800>
- Pear, V. A., Ponicki, W. R., Gaidus, A., Keyes, K. M., Martins, S. S., Fink, D. S., ... Cerdá, M. (2019). Urban-rural variation in the socioeconomic determinants of opioid overdose.
- Rosenblatt, R. A., Andrilla, C. H. A., Catlin, M., & Larson, E. H. (2015). Geographic and Specialty Distribution of US Physicians Trained to Treat Opioid Use Disorder. *The Annals of Family Medicine*, 13(1), 23–26. <https://doi.org/10.1370/afm.1735>
- Rosenblum, A., Cleland, C. M., Fong, C., Kayman, D. J., Tempalski, B., & Parrino, M. (2011). Distance Traveled and Cross-State Commuting to Opioid Treatment Programs in the United States. *Journal of Environmental and Public Health*, 2011, 1–10. <https://doi.org/10.1155/2011/948789>
- Sigmon, S. C. (2014). Access to Treatment for Opioid Dependence in Rural America: Challenges and Future Directions. *JAMA Psychiatry*, 71(4), 359. <https://doi.org/10.1001/jamapsychiatry.2013.4450>
- Sommer, B., & Quinlan, M. K. (2018). *The Oral History Manual* (Third Edition). Rowman & Littlefield.
- State of Vermont. (n.d.). Hub and Spoke Blueprint for Health. Retrieved February 24, 2019, from <https://blueprintforhealth.vermont.gov/about-blueprint/hub-and-spoke>
- Thomas, Y. F., & Compton, W. M. (2007). Rural Populations Are Not Protected From Drug Use and Abuse. *The Journal of Rural Health*, 23(s1), 1–3. <https://doi.org/10.1111/j.1748-0361.2007.00116.x>
- U.S. Senator Patrick Leahy of Vermont. (March 2018). Press Release. Retrieved August 15, 2019, from <https://www.leahy.senate.gov/press/leahy-leads-charge-against-opioid-epidemic-in-appropriations-bill>.
- VPR News. Gov. Shumlin. 2014 State of The State Address. Retrieved July 22, 2019, from <https://www.vpr.org/post/full-audio-and-text-gov-shumlins-2014-state-state-address>
- Zalkind, S. (September 2017). The Infrastructure of an Epidemic. Retrieved February 25, 2019, from CityLab website: <https://www.citylab.com/equity/2017/09/methadone-mile/539742/>