

**Proposed Interventions for Improving
Access to Mental Health and Addiction
Services in the Town of West
Springfield, MA**

METROBRIDGE



About this Report

This report is a product of student work in Boston University's Global Mental Health Course taught by Prof. Shelley Brown in Fall 2019.

Acknowledgments

The MetroBridge program at Boston University's Initiative on Cities wishes to thank our partners in the Town of West Springfield for their collaboration and support on this project: Laurie Cassidy, Director of the Council on Aging and Jeanne Galloway, Director of Public Health.

About BU MetroBridge

MetroBridge empowers students across Boston University to tackle urban issues, and at the same time, helps city leaders confront key challenges. MetroBridge connects with local governments to understand their priorities, and then collaborates with Boston University faculty to translate each city's unique needs into course projects. Students in undergraduate and graduate classes engage in city projects as class assignments while working directly with local government leaders during the semester. The goal of MetroBridge is to mutually benefit both the Boston University community and local governments by expanding access to experiential learning and by providing tailored support to under-resourced cities. MetroBridge is funded by the College of Arts and Sciences and housed at Boston University's Initiative on Cities.



Table of Contents

Executive Summary p. 4

Team 1: Addressing Data Collection in West Springfield p. 5

Team 2: Budgeting for Mental Health Services p. 9

Team 3: Funding and Support for Mental Health Services p. 15

Team 4: Transportation Access for Mental Health Services p. 21

Team 5: Residents' Access to Mental Health Care p. 25

Team 6: Harm Reduction Policies to Address the Opioid Crisis p. 29

Team 7: Social Workers as a Substance Abuse Treatment Option p. 35

Team 8: Community Task-Based Intervention for Hoarding p. 44

Team 9: Peer-to-Peer and Adult-to-Youth Mentoring Programs p. 50

Team 10: Cultural Competency in West Springfield: Improving Access to Mental Health Services Using Peer Social Workers p. 59

Executive Summary

The Town of West Springfield is facing a level of demand for mental health and addiction support services that cannot be met by existing programs alone. The challenge presented to MetroBridge was to help illuminate the specific needs of the community, research evidence-based interventions, and suggest strategies for the Town to consider as it makes a longer-term plan to seek public and private grant-funding to expand access to critical health services.

Students in the Global Mental Health course at Boston University confronted this research question across eight teams, each focusing on various aspects of this issue: availability of up-to-date data on mental illness in the town; budgetary considerations such as local fundraising/partnerships; transportation access to medical care providers; harm prevention strategies; social work and mentoring programs; and how to address the mental health concerns of hoarding and opioid addiction. The students visited West Springfield to meet with the Public Health Director, Director of the Council on Aging, and to interview elderly residents about their specific needs as a population vulnerable to mental illness.

The list of evidence-based intervention strategies proposed by the student teams includes:

- Train high school students to collect necessary data about local mental health needs
- Publicly track the mental health budget to increase transparency and potentially increase budget line items
- Fundraise and/or partner with local stakeholders and organizations such as Bay Y, Rotary Club of West Springfield, West Springfield Lions Club, and local churches
- Create a subsidized or free transportation program modeled after Taylor Regional Hospital in Campbellsville, KY, which offers rides to individuals accessing treatment
- Support mental health screenings in for students in local schools and employee wellness screenings at area businesses
- Develop harm reduction policies such as a syringe and needle exchange program
- Hire a social worker to expand the town's capacity to serve residents living with addiction and/or mental illness
- Establish a community-based task force to help residents struggling with hoarding
- Build adult-to-youth and peer-to-peer mentoring programs aimed at preventing adolescent drug usage, particularly of opioids
- Adopt a peer social work model to provide culturally-competent support for residents dealing with mental illness

The students' research findings and recommendations are discussed in more detail in the following report prepared for the Town of West Springfield.

Team 1: Addressing Data Collection in West Springfield

Problem Statement

An ongoing problem that needs to be addressed in West Springfield is the lack of current data on their resident population. Currently, the town is using the 2010 Census data which is outdated as many things have changed within the town. Since 2010, West Springfield has had a significant increase in their elderly population, an influx of refugees, and experienced a tornado in 2011 that could have implications for the mental health of those residents who experienced it. There is also a lack of funds to provide the town with sufficient resources to help their people. West Springfield was most recently denied funding from the “URMA” and “MHOT” behavioral health grants. Part of the reason for this loss was that, while West Springfield has a need for mental health services, their data is not current and does not reflect this. With data, the town would be more aware of the needs that the population has, what factors may be contributing to those issues, and how to fix them and provide their residents with proper care. In addition to this, there are people that have issues regarding their mental health but are unaware that they are experiencing symptoms of potential mental health issues. With an increase in data, funding, and awareness, the town of West Springfield could be on the path to offer better care to their mental health patients.

Brief Review of Existing Strategies & Assessment

FOCUS is a non-profit organization based in Washington D.C. that aims to improve the quality of charter school education. To do this, they hire part time college student interns to assist in data collection. These charter schools rely on up-to-date data to properly manage their funding. After participating in a baseline 2-hour training on the school they are entering and the work they will be doing, the students begin working with ongoing training opportunities throughout their time. The students collect data on classroom tests and reading scores as well as tracking trends in attendance. Then they enter the data into databases where they analyze it and work with the school staff and board to use it to improve education outcomes. The internship provides the students with not only hands-on experience and knowledge, but includes a stipend of either \$2250 or \$4500, depending on whether they work in the program for one semester or for two. The students are required to work 10-15 hours per week, 150 hours a semester (Focus, 2019).

The Network Of Community Advisors (NOCA) is the primary advisory body of the Prevention Research Center for Healthy Neighborhoods (PRCHN). NOCA focuses primarily on research that advances the understanding of health and social issues within the community, identifies priority areas in need of research, and finds the most efficient ways to share the research. NOCA, along with the PRCHN, is mainly focused on using their findings in research to better the community and prevent health issues. This program relates to our problem

statement regarding the West Springfield project because the NOCA center is focused on getting reliable data to use to better the community, and that is essentially the main problem identified in West Springfield (Network of Community Advisors, n.d.).

Another program that is based on organizing and communicating data is the Schools Interoperability Framework (SIF). This program essentially helps connect statewide data collection bases with school information systems. They provide real time data education, using Edwin Analytics to help them report data, makes sure there is valid and effective data and figures out the budget for school districts. The program has received praise in the Massachusetts community for the high quality and validity of their data. According to the Massachusetts Department of Elementary and Secondary Education, as of January 2019, 97% of Massachusetts school districts are submitting state reporting data via SIF, with 386 Massachusetts schools utilizing the database. Though West Springfield is collecting data on their whole town and not just a school, a model of the SIF program has potential in the town (Massachusetts Department of Education, 2019).

Selection of an Intervention Strategy & Justification for Strategy

The intervention strategy that we believe would work best in the West Springfield community is one that is similar to FOCUS, the non-profit organization in Washington D.C.. While modifications to the program would be needed with regard to type of data collection, the foundation of the strategy is strong. Specifically, FOCUS requires students to train in data collection and then collect data on test scores and attendance in schools. With the amount of hours the interns worked and the amount they were paid, it equated to working a job paying \$15 an hour, well over minimum wage. They will be able to gain hands-on experience that they can utilize to better their futures while being paid a fair stipend.

We believe that using the FOCUS model for West Springfield would be beneficial. Rather than having students collect data with regard to test scores, students would be paired with local stakeholders and be required to call residents and collect data on demographic information on the community. Ideally, students involved would collaborate with stakeholders in the community to collect data on the populations of interest, as well as analyzing the trends that arise from that data. The program that we would implement in West Springfield would be a semester long project, about five hours per week for ten weeks, and include two high school students. The internship would pay each student minimum wage, \$12 an hour, and require an overall budget of \$1200 in total. We recommend that the town of West Springfield implement supervisory roles for the students in the departments that are deemed fit.

Modeling an intervention after FOCUS learning would bridge the gap between classroom learning and community needs. It would provide students with meaningful, hands-on experiences that have the potential to bring various career paths/interests to life, and

introduce aspects of public health, social work, government, and other careers. It also provides a more cost-effective means to collect the data that the town needs.

Feasibility

Our group believes creating a data collection program is feasible, so long as there are a motivated group of students willing to participate in the program. Funding would be the most difficult part but we found it ethical and necessary to pay those who have dedicated their time. Students will also be motivated to be a part of this program as it can help boost their resume and they will be paid for their working hours in return.

This approach can be feasibly implemented by the West Springfield government and stakeholders. Many of the problems the town faces are due to a lack of knowledge about the demographics of the community's population and the issues the residents are facing. Acquiring current data would allow the government to learn the true needs of their population and focus on providing care to vulnerable populations in need. We decided that this approach would be the ideal option because it allows for the maximization of obtaining data and information while giving the West Springfield's young adults the opportunity to gain work experience and also to become involved in their community. Some challenges that would be faced when implementing this approach include figuring out which stakeholders are going to be running this program, how the stakeholders would find the students for the data collection internship, and finding the money needed to fund this program.

Cost-Benefit Analysis

Based on the structure of the program, we estimate the cost to be around \$1,200. By selecting 2 students, the town will pay them \$12 an hour across the span of 50 hours over the course of a semester. Along with the benefits of adding this experience to a college resume or job application, we found it ethical and necessary to pay the students for their work. This intervention would be considered indirect, as the work from the student will not directly affect the population; however, it will help build a better understanding of organizations and the local government to determine where their resources should be allocated to. By focusing on gaining a demographic census through a student internship program, we acknowledge that we could be missing out on treatment and services towards mental health or opioid addiction. However, due to the vast diversity of the West Springfield population, members came to the conclusion that prioritizing the knowledge and information of the population within this community would help with our understanding of the health services needed, prioritizing healthcare professionals that can communicate with the patients, and providing optimal care without overspending.

Potential risks that may be faced are that there may not be money to fund this program, residents of West Springfield may not cooperate with the student, and students may not want to volunteer time due to the travel time and their priorities. We are unsure how

residents would react to unfamiliar individuals asking them personal questions on their health and background. Some intangible benefits that may not directly address the problem statement are better understanding of diversity within the community, better access to resources , may also lead to better mental health services for populations that were not originally identified.

Conclusion

West Springfield has the ongoing problem of the lack of data collected for their resident population. The town is still using data from 2010, which is interfering with their ability to acquire funding, as well as their understanding of their resident's needs and problems. To solve this problem, our group proposes following a model of a program called FOCUS, which uses trained high school students to collect data in communities. We believe it will be beneficial for the town of West Springfield to implement a program that can collect much needed data, while simultaneously providing local students with career opportunities.

References

Data Internship. (n.d.). Retrieved December 7, 2019, from <https://www.focusdc.org/data-internship>.

Frank, J. (n.d.). Network of Community Advisors. Retrieved December 2, 2019, from https://www.prchn.org/Downloads/NOCA_onepager_FINAL6.pdf.

Norton, D. M., & Pun, S. B. (n.d.). Schools Interoperability Framework (SIF). Retrieved December 6, 2019, from <http://www.doe.mass.edu/infoservices/data/sif/>.

Team 2: Budgeting for Mental Health Services

Problem Statement

As an underserved community, West Springfield is a town that faces many issues regarding mental health. A primary area in need of improvement is the lack of hard data and statistics on population. Although this may not seem to be a detrimental problem, it greatly impacts the city's ability to address many of its health issues including the prevalence of mental disorders and illnesses. This lack of data conceals the true prevalence of mental illness within the community. Who is suffering from mental illness? How many people are suffering from mental illness? Another consequence of this problem is that the information and data that West Springfield currently has are outdated. Data from the 2010 Census has been and is currently being used for unsuccessful grant applications. As a result, by referring to outdated information, the town of West Springfield has repeatedly been denied grants. By not having methods of obtaining significant and updated information on its population, it is not clear how large the burden of mental health truly is in West Springfield and exactly what programs and policies need to be implemented in order to address this problem.

A potential solution to West Springfield's challenge of collecting hard data and important information is reallocating and distributing the funding that they currently receive. In 2018, the city of West Springfield's Health and Welfare programs were given a budget of \$1,298,616.64 (West Springfield Mayoral Office, 2019). This budget currently supports the Department of Health, Veteran's Services Department, and the Council on Aging. However, these programs only used \$1,115,845.17 of this budget in 2018. At this time, the unused money in this budget could be reallocated to more specific projects that could ultimately contribute to addressing mental health in West Springfield. Our group proposes that the unused money be used to implement effective reallocation strategies towards projects that aim to efficiently collect the hard data on mental health prevalence that West Springfield needs. For example, the reallocated funds could go towards the development of surveys that include vulnerable populations such as the increasing homeless and elderly populations, which are not typically included in the census. However, it will be important to design and implement effective reallocation strategies in order to achieve this goal.

Strategies

Collect Data to Most Efficiently Reallocate Funds

There are several strategies that West Springfield's government can implement in order to efficiently revise its funding allocation. In order to properly reallocate funds, it is necessary to assess where there is a need for further investment from the government. As a result, it is vital for West Springfield to gather accurate data regarding its population. The article,

“Mental Health Community Based Funding: Ohio’s Experience in Revising Its Funding Allocation Methodology,” establishes some “broad considerations that are of paramount importance when developing a funding formula to allocate state funding for community mental health services” (Seiber et al., 2011, 607). One major consideration that the article emphasizes is the importance of data availability and reliability. In Ohio, there were issues in obtaining estimations for the needs of each county, and they could not exclusively use the US Census Bureau’s American Community Survey (ACS) to extract the information they needed. This is because it did not account for counties with populations of less than 20,000, thus excluding several smaller counties. Fortunately, Ohio had been conducting its own survey, the Ohio Family Health Survey, which allowed for the state government to make estimations based on more specific data that accurately reflected the smaller populations (Seiber et al., 2011).

Similarly, West Springfield could benefit by further localizing its data sources by conducting population-specific surveys, instead of relying on the county, state, and national surveys and data. Without updated data, the town of West Springfield cannot effectively reallocate its funds to areas most in need. The article mentions the “Hold Harmless” clause which states that services that already receive funding will not experience a decrease in funding due to the reallocations of funds. Rather, any new funds would be used to fund any increases in the Severely Mentally Disabled (SMD) count that might emerge from newly collected data (Seiber et al., 2011). New data gathered could help West Springfield get more funding as well as help them better budget and allocate existing funds to the populations most in need.

Public Tracking of Mental Health Budget

A second strategy that can be employed to restructure the current mental health budget and increase funding for mental health services is to publicly track the mental health budget. Based on a study by Raja, Wood, Menil, & Mannarath (2010) that explored mental health financing information in Ghana, Uganda, Sri Lanka and Laos, researchers found that mental health spending could not be tracked beyond the psychiatric hospital level due to limited information at the health centers and community centers (Raja et al., 2010). Researchers found that not only was insufficient funding for mental health services a problem that stemmed from budgeting, but it also came from problems in distributing and spending budget allocations efficiently. In Buliisa, Uganda, only 0.1% of the budget allocated to mental and reproductive health in 2008 was actually spent partly due to inaccurate recordings (Raja et al., 2010). Researchers recommend that the mental health budget information should not only be tracked but should also be made publically accessible.

Researchers found that budget tracking should include information on the allocation of resources, actual dispersal, and utilization. It should include whether or not the budget is linked to performance, which determines whether the money that is being distributed and spent is helpful (Raja et al., 2010). A problem that researchers found with the mental health

budget parallels the situation in West Springfield. As mentioned earlier, West Springfield Health and Welfare programs were given a certain budget yet only used a proportion of it and had quite the amount of unspent money. Implementing this strategy could be beneficial because it allows for accurate tracking and spending of the current budget and allows us to visualize how much money is not being utilized. The unspent money that is tracked through this strategy can then be reallocated to specific projects such as developing better surveillance tools to capture vulnerable populations in West Springfield who are not getting the help they need because they are not accounted for in population surveys.

Expand the Monetary Resource Base for Mental Health Services

A third potential strategy is to implement financing mechanisms that will expand our resource base. This resource base is primarily monetary and includes both the funding that the town currently has from the Health and Welfare programs, as well as any future funding they may obtain in the future. Expanding this resource base will be valuable for the town because it will help implement any future mental health initiatives that the town may want to enact. A strategy to expand this resource base, as recommended by the World Health Organization (WHO), is to establish a mental health innovation fund. The primary role of the fund would be to distribute and allocate the available funds amongst West Springfield's mental health clinics, hospitals, and advocacy groups that provide mental health services, including screening and surveying (World Health Organization, 2003). The innovation fund would help to ensure that mental health funding is spent in a meaningful way. It is important that the innovation fund is not spent in insignificant places that do not reach those who need mental health services. As mental health awareness hopefully increases throughout the town, it will become important for West Springfield to have a stable source of funds that they can rely on.

Additionally, as long as the town's monetary resources are allocated to impactful programs and services, this is data that we can collect and provide as part of future grant applications. Because the city already struggles to find funding from outside sources, having this fund and providing data on how their current resources are being spent would help demonstrate the city's immediate need. Although the mental health innovation fund would be something that needs to be established, it can eventually serve as a primary resource base for the improved and comprehensive surveys our group hopes to implement in order to address the need for data collection. It is also possible that this fund could also support other surveying methods used by the Department of Health which are currently infeasible due to monetary restraints.

Primary Intervention Strategy

There are undoubtedly many methods and ways to address the challenges faced by West Springfield in regards to mental health services and awareness. The strategy that we have selected as our primary intervention strategy is our second strategy, publicly tracking the mental health budget of West Springfield. This includes the publication of the city's fiscal

year budget, as well as the budgets of publicly funded programs. We also believe that our strategy is the best strategy for the population of West Springfield because it creates transparency and involves the citizens in the progress the town makes towards improved mental health and well-being. By involving the citizens of West Springfield, the initiative for mental health awareness will ultimately gain more support from its people.

Justification & Feasibility

By publicly tracking the mental health budget, this allows for increased transparency in the funding for mental health services. This strategy is feasible for the town of West Springfield because the citizens could potentially access data and information regarding mental health funding with more ease than accessing it previously was, allowing them to have oversight on government allocations and expenditures. Publicly tracking the budget democratizes the budget process because it gives citizens and taxpayers a voice in how their funds and resources are allocated. When every mental health care expenditure is recorded and disclosed, it not only reduces the likelihood of misused or misappropriated funds, but it also effectively shows how the resources and funding are allocated and spent. With strict laws in place, each act of spending is monitored and assessed by both the public and the mental health workforce. Budget transparency can generate higher revenues since citizens are more likely to pay taxes and vote for mental health care if they can see that their hard-earned money will be well spent. Ultimately, having a transparent budget and a systematic way of mapping spending will leave no room for misused funds, increasing the accountability of both the government and its public services. Rather than letting untouched funds go unspent, the money can be put towards developing surveillance tools such as surveys that will capture the vulnerable populations of West Springfield who are often missed in data collection.

This initiative is one that is feasible for West Springfield to implement because of the \$1,298,616.64 budget that the town's Health and Welfare programs were given, approximately \$182,000 went unused. Returning to our initial proposal for the unused funds to be allocated towards more specific projects that contribute to addressing mental health, we believe that these unused funds could go towards the development and implementation of our approach. Although these existing funds will not be able to sustain our program, it will certainly help to initiate the first stages of its development.

Anticipated Challenges

As with any new program, we do anticipate challenges with the implementation of our approach. One primary challenge that we expect to face is the fact that there will always be other priorities in which funding could be used throughout the town. Despite the urgency of West Springfield's mental health crisis, there will inevitably be other priorities that must be attended to as well. Secondly, our approach has many requirements including time, effort, and a dedicated team. Those involved in our approach will be responsible for tasks that

have shown to be challenging for the town in the past. For example, our team would need to be involved in data collection as well as being informed on spending data. As previously mentioned, obtaining data has proved to be difficult for the town as West Springfield currently relies on data from 2010. Additionally, our team will also be involved in new developments. In order to achieve our goal of publicly tracking the mental health funding, we will need to create a method of online tracking. If desired, the team may also be in need of members who can develop an app to help with effectiveness and accessibility. Lastly, our team anticipates a lack of support from groups who may feel that their initiatives are more deserving of funding from the total budget for publicly funded programs.

Cost-Benefit Assessment

The implementation of this program does come with potential costs. This public tracking intervention would require personnel and time to ensure that funding is being accurately tracked. Not only would someone need to work on tracking the fund, but time would need to be dedicated to reporting the fund. Whether a small group of people or an individual is hired, this will require funding. Ensuring that the job of following, tracking, and reporting funding each year is important. This person or group of people will be required to look back at previous years' spending to determine successful spending strategies. Personnel would be required to focus on where funds go and relaying spending information to the general public.

Conclusion

Ultimately, we believe that tracking the budget is a way to ensure that the funding allocated for mental health services in West Springfield is efficiently documented and tracked. Our program ensures for an organized system in place to account for any unused money in any particular year. Publicly tracking the budget will offer transparency and democracy in how money is spent on services for the people. We are fully cognizant about the potential challenges that this plan ensues—deciding on the type of data platform, the human resources needed, and the time and dedication required to ensure accuracy of documentation. Nevertheless, we believe that in the end, the benefits outweigh the costs. The question of who deserves this unused money lingers. We strongly believe that while there may be other departments that the money could be reallocated towards, mental health deserves priority status.

The unused money could be used in a multitude of ways, but we encourage the town to put it towards the development of updated surveillance tools to capture West Springfield's most vulnerable populations, such as the homeless or the elderly. Further research needs to be done to evaluate the cost of developing such tools as well as its feasibility and acceptability in the West Springfield population. Without accurate data that represents the town of West Springfield in its entirety, the true burden of mental health illnesses will remain in the dark.

References

Raja, S., Wood, S. K., de Menil, V., & Mannarath, S. C. (2010). Mapping mental health finances in Ghana, Uganda, Sri Lanka, India and Lao PDR. *International journal of mental health systems*, 4(1), 11.

Seiber, E. E., Sweeney, H. A., Partridge, J., Dembe, A. E., & Jones, H. (2011). Mental Health Community Based Funding: Ohio's Experience in Revising Its Funding Allocation Methodology. *Community Mental Health Journal*, 48(5), 604–610. Doi: 10.1007/s10597-011-9412-y

West Springfield Mayoral Office, (2019, May 1). *Town of West Springfield Fiscal Year 2020 Approved Budget*. Retrieved October 9, 2019, from: <https://www.townofwestspringfield.org/home/showdocument?id=5153>

World Health Organization, (2003). Mental Health Financing. Mental Health Policy and Service Guidance Package.

Team 3: Funding and Support for Mental Health Services in West Springfield

Problem Statement

Currently, West Springfield is in the process of applying for grants to invest in expanding the town's mental health resources. However, the town has had difficulty in identifying and applying for appropriate grants that they qualify for and will meet their mental health resource needs. Securing funding is a key step necessary to support professionals and community members, whether it be children with parents who are addicted to opioids or elderly individuals who experience issues with hoarding. In this intervention proposal, we outline three possible funding avenues that the town of West Springfield could pursue: state/federal grants, grants from private organizations, and donations from local stakeholders. Ultimately, we recommend that West Springfield prioritize pursuing fundraising efforts with local stakeholders.

Existing Strategies

State and Federal Grants

The federal Substances Abuse and Mental Health Services Administration oversees the distribution of the Community Mental Health Services and Substance Abuse Prevention and Treatment Block Grants to states seeking funding to flexibly spend on various mental health resources throughout the state (Substance Abuse and Mental Health Services Administration, 2019). The town of West Springfield alone would not be able to apply for this grant; rather, the town would have to work with other localities across the state to encourage the appropriate Massachusetts state actors to apply for these block grants, or if the state is already a recipient of the block grants, West Springfield would need to request that Massachusetts allocate funds to the town.

The Community Services Block Grant (CSBG) is a federal funding source that funds state and local actors that work to address the "causes and conditions of poverty" (Office of Community Services, 2019). This grant would be helpful in addressing the experiences of homeless individuals in West Springfield. As outlined above, West Springfield can mobilize local and state actors to receive funds through this block grant. Another option that the Community Services Block Grant program offers is access to discretionary grants that allow municipalities to secure funding as an association of local actors, called a Community Action Agency, that work to serve low-income individuals. The latter strategy requires significantly less outreach and advocacy on the part of West Springfield, but only 1.5% of grant money from this program were allocated to discretionary grantees, according to data from November 2018 (Office of Community Services 2018). Furthermore, the CSBG requires that the grantee provide a needs assessment and conduct an annual assessment to

demonstrate the allocation of grant money and related outcomes. Unfortunately, West Springfield has not yet had the capacity to complete a formal needs assessment, which is a significant barrier to successfully securing this grant.

Increasingly, government has issued social impact bonds to fund and scale social programs administered by nonprofit groups. According to McKinsey & Company, this arrangement requires that government agencies contract third parties to raise financial capital from social impact investors, which is then distributed to nonprofit organizations (2012). Throughout the course of the intervention, an independent evaluator will assess its effectiveness. At the end, if the nonprofit has met its performance goals, the government will repay investors (McKinsey & Company, 2012). For nonprofits in West Springfield that have proven results, this may be a viable funding mechanism. This would require coordination with local and/or state public actors to identify existing social impact bond programs and/or implement one.

Grants from Private Organizations

There are myriad private organizations, including family foundations, community foundations, nonprofits, and individuals, that offer grants to address community health problems. These grants often offer greater “flexibility and variety” that can be leveraged to fund programs and organizations in West Springfield that are not targeted in federal and state grant programs. Often, these grants require two to three-page applications or letters of intent, which will allow for the town of West Springfield to efficiently apply to a variety of different funding sources. However, there are challenges to applying to private organizations’ grant programs; usually, foundations do not use professional reviewers, and only approximately 26% of foundations have a website (Bauer, 2011, p. 234). Therefore, organizations and public agencies in West Springfield would need to invest significant time in networking with individuals at private organizations who make grant decisions and identifying available grant programs to successfully collect private funding dollars. Some private foundations that West Springfield should explore seeking funding dollars from are the David and Lovell Foundation, which funds mental health nonprofits, and Robert Wood Johnson Foundation, which supports community-based health programs.

Leveraging Local Stakeholders

Grants from federal, state, and private organizations often require extensive applications and accountability procedures demanding significant amounts of data collection, expertise, and human capital. Fundraising in partnership with local stakeholders, such as community members and local businesses, is a low-capital strategy to receive both funding dollars and material goods in a short period of time. For example, Big Y, a local grocery store in Springfield, offers opportunities to solicit donations via an online donation request form and the “Big Y Cares Community Giving Bag” initiative, in which the grocery chain donates \$1 to a local nonprofit for every bag bought (Big Y). Other potential funders in western

Massachusetts that would be interested in investing in local communities include philanthropic associations, such as the Western MA Funders Group of Philanthropy Massachusetts (Philanthropy Massachusetts). Many community organizations may have available funding or necessary material goods to support specific programs and initiatives in West Springfield, but do not have formal grant or donation request programs. Organizations like the Rotary Club, Lion's Club, and local churches would be helpful stakeholders to reach out to that may be interested in supporting MH programs and interventions in West Springfield (Rotary Club; Lion's Club).

Other ways to leverage local stakeholders include sharing information and resources between organizations with similar goals. For example, organizations like Springfield Partners for Community Action support individuals on their path to self-sufficiency and economic stability (Springfield Partners for Community Action). The town of West Springfield could develop a community partnership with Springfield Partners for Community Action to receive information about how to successfully apply for grants or conduct needs assessments. These types of partnerships may not directly lead to funding dollars, but could result in learning best practices on serving populations experiencing mental health issues or applying to grant programs.

Recommendations

We recommend that West Springfield focus its attention to receiving funding from local stakeholders that would be more inclined to invest in the community and will require less statistical information on the mental health needs of the town. Given that West Springfield has struggled with receiving grants due to the lack of sufficient data on mental health needs, this is the most realistic approach. With the initial funding that West Springfield receives from local stakeholders like Big Y or members of Philanthropy MA, the town will be able to better understand the needs of the community, the most important interventions to prioritize, and collect the appropriate data to apply to a more significant state/federal grant.

Justification

The funding sources we mentioned will not require significant amounts of data collection nor necessarily require investment in technical support such as a statistician researcher. By reaching out to local stakeholders, time will be saved and greater focus can be placed on other aspects such as finding volunteers to help on the ground level. Although local grants may be smaller, they can subsequently be used to fund data collection initiatives that then lead to receiving larger grants. As network and partnerships are already a strength in West Springfield, building off of existing relationships and reaching out to local stakeholders is feasible and would help improve the availability of resources to implement programs.

One challenge with this intervention is that it does not cover operational expenses. It is dependent largely on the willingness of community funders that would be interested in

funding mental health, which is not always guaranteed. Therefore, there is a great amount of instability of funding. Additionally, there is risk of not receiving grants from these local funders every year. In order to gain support from stakeholders, the most feasible option is to utilize existing programs rather than funding something that does not yet exist. Additionally, it would be difficult to gain support from stakeholders solely for West Springfield, as supporting a shared initiative from multiple geographic regions in need may be more desirable. This shared initiative may be crucial to gain support through funding.

There are a few grant programs in West Springfield that may be potential partners, including (but not limited to) Big Y Cares Community Giving Bag, a grant program through Audi, and funding opportunities through General Motors. West Springfield could use incentives to gain buy in from those companies. Many organizations have funding dollars or material goods that they may be useful, but do not have a formal grant or donation request program. Some organizations that may be interested in funding mental health related efforts are: Rotary Club of West Springfield, West Springfield Lions Club, and Churches (West Springfield Church of Christ, West Springfield Covenant Community Church, and Mittineague Congregational Church). It also may be beneficial to develop a more comprehensive volunteer program, possibly by training current members of the Park and Recreation Department. This method would prepare individuals to provide assistance without impacting the budget. Regardless of the stakeholder, it is imperative to effectively communicate the utility of their funding efforts and provide specific, concrete goals, objectives, and methodology.

Conclusion

We recommend that the next step be to identify a) corporations who provide grants and sponsorship and b) higher education sources who could provide volunteers for operational means. This may involve reaching out to nearby colleges or universities such as UMass Amherst or Springfield College. It is important to initiate conversations, explain the needs of the town, and express how their support will help to make a positive impact on the community. Additionally, we recommend reaching out to local funders who are connected and familiar with the needs of West Springfield in attempt to begin applying for grants and funding opportunities.

References

About Community Services Block Grants. (n.d.). Retrieved from:
<https://www.acf.hhs.gov/ocs/programs/csbg/about>.

Bauer, D. G. (2015). *The "how to" grants manual: successful grantseeking techniques for obtaining public and private grants*. Lanham, MD: Rowman & Littlefield.

CSBG Fact Sheet. (2018, November 16). Retrieved from:

<https://www.acf.hhs.gov/ocs/resource/csbg-fact-sheet>.

FFY 2020-2021 Block Grant Application, FFY 2020-2021 Block Grant Application (n.d.). Retrieved from https://www.samhsa.gov/sites/default/files/grants/ffy_2020-2021_block_grant_application_and_plan.pdf

General Motors: Apply for Funding. (n.d.) Retrieved from: <https://www.gm.com/ourcompany/social-investment/apply-for-grant.html>

Grant Eligibility. (n.d.). Retrieved from: <https://www.grants.gov/learn-grants/grant-eligibility.html>.

Grants to Cambridge, Massachusetts Nonprofits for Activities that Address Community Needs. (n.d.). Retrieved from: <https://massachusetts.grantwatch.com/grant/180237/grants-to-cambridge-massachusetts-nonprofits-for-activities-that-address-community-needs.html>.

Grants to Greater Boston, Massachusetts Organizations for Education, Healthcare, Arts, and Services for Families. (n.d.). Retrieved from: <https://massachusetts.grantwatch.com/grant/146723/grants-to-greater-boston-massachusetts-organizations-for-education-healthcare-arts-and-services-for-families.html>.

Grants to Massachusetts Nonprofits to Improve Health Services for Seniors, Children, and Underserved Communities. (n.d.). Retrieved from: <https://massachusetts.grantwatch.com/grant/163830/grants-to-massachusetts-nonprofits-to-improve-health-services-for-seniors-children-and-underserved-communities.html>.

Mckinseyonsociety. (2012, May 15). An introduction to Social Impact Bonds. Retrieved from <https://www.youtube.com/watch?v=E6GrQtCh83w>.

Partners in Community. (n.d.). Retrieved from <https://www.bigy.com/Community>.

Ragin, L., & Palandjian, T. Social Impact Bonds: Using Impact Investment to Expand Effective Social Programs (n.d.). Retrieved from <https://www.frbsf.org/community-development/files/social-impact-bonds-impact-investment-expand-effective-social-programs.pdf>

Rair, L. (2016, January 12). Meeting the Health-Related Social Needs of Low-Income Persons: Funding Sources Available to States. Retrieved from <https://nashp.org/15040-2/>.

Rotary of West Springfield (n.d.) Retrieved from <http://www.rotaryofwestspringfield.org/>

Western MA Funders Meeting. (2019, October 29). Retrieved from:
<https://www.philanthropyma.org/events/western-ma-funders-meeting-1>.

West Springfield Lions Club (n.d.) Retrieved from <https://www.westspringfieldlionsclub.org/>

West Springfield Park and Recreation Department (n.d). Retrieved from:
<https://www.townofwestspringfield.org/government/departments/parks-and-recreation-wip/volunteer-opportunities>

Team 4: Transportation Access for Mental Health Services

West Springfield has a decent availability of mental health resources, but they are not accessible without a car or on many public transportation routes. Lack of transportation may contribute to communities believing resources are not accessible or available to them when transportation might be the primary issue. Often this limitation in transportation leads to the acceptance of helplessness and further promotes a sense of a lack of self-efficacy. With over fifteen percent of the town's population age sixty-five years or older, lack of accessible transportation poses a threat to this age group's ability to access care.

Many of the services provided by key community organizations, such as the Gandara Center, are not centrally located in West Springfield. Although in close proximity, they are still inaccessible to community members without access to a car or other means of transportation. The majority of transportation services are located near the historic district but decreases towards areas with less dense populations of the city which restricts the accessibility to mental care facilities for those that live there.

A lack of crucial transportation is an issue in many communities and consequently, many solutions have been found to be effective in bridging this gap. Volunteer driver services, taxi voucher systems, and telecom medical service are strategies that have been shown to be successful in other towns. The strongest solution for West Springfield's unique context is to promote existing organizations and stakeholders to provide shuttle services for individuals seeking treatment.

Volunteer driver services seem to be a viable solution for West Springfield, but may not be plausible for the community. In West Hampton county, 82% of drivers commute to work alone which would communicate a large number of drivers with space in their vehicles. Additionally, these programs have found traction in other towns across the United States, one survey of volunteer drivers found participants in 40 states (Kerschner et. Al 2008). It is an attractive solution because it would not require people to walk to the bus stations, which poses an issue to more vulnerable populations, like the elderly and disabled people.

However, the most pertinent drawback to volunteer driver services is the difficulty of finding and retaining volunteers. Up to half of some transportation, budgets can be allocated to volunteer driver services (Kerschner, 2006), and while this might be cost-effective in some situations, West Springfield already has a bus system in place. Additionally, the search for willing and long-term volunteers in West Springfield would be a long and ambiguous process. This solution would consist of too many unpredictable variables and would depend on the altruism of community members, which after the main issue is addressed with certainty, can be an additional feature to further improve the transportation limits.

The taxi voucher systems demonstrate many of the similar issues when they are implemented. Government money is allocated to purchase vouchers for taxi rides for the transportation of elders, the disabled, and those in need. While this solution eliminates the need for the city government to find volunteers, there are still similar issues with acquiring government funding, specifically since the grants require extensive and accurate data collection. Finally, both of these solutions have the capacity to transport one or two people at a time, which is a small-scale solution to a large-scale problem.

Telecom appointments eliminate the need for transportation in order to receive care since they solely require the use of a computer interface. “Telehealth, a term used interchangeably with telemedicine, has been defined as the use of medical information that is exchanged from one site to another through electronic communication to improve a patient’s health. Those who have mobility restrictions would be great candidates for this service. However, as many seeking care in West Springfield are elderly, this solution may not be applicable. Those who are lacking in technological literacy/savviness may have trouble navigating this technology independently. In addition, telehealth is relatively new and has many implications for future research. Although this solution has the potential to be very promising there are still many uncertain qualities and they also “present challenges as health professionals adapt to innovations in consumer technologies” (Reed, et.al). The scientific journal article “Exploring the efficacy and acceptability of Internet-delivered cognitive behavioral therapy for young adults with anxiety and depression: An open trial” states that “the internet is a modality that has the potential to facilitate engagement with, and delivery of psychological treatments to young adults.” In “no therapist-guided internet-delivered treatments have been developed specifically for young adults”. This further proves the point of the nuanced features of this new subfield within health care and that it is directed to appeal to younger individuals (Johnston. et.al).

The van program at Taylor Regional Hospital can serve as a model for West Springfield, and future opportunities. Their service has been operating successfully since 2007, and offers strategies and proof of success. The success of this service resides in the division of cost among the hospital’s budget, fourteen local organizations and an annual fundraiser. The hospital budget is allocated to the maintenance of the vans and employment of one full-time driver, one part-time driver and one per diem driver. Local organizations provide sponsorships to the service and take responsibility for funding \$80 per month for gas. The annual fundraiser is then organized by the hospital with the intent of raising money to purchase new vans with fewer miles every two years for a cost of about \$35,000 per van.

There are still challenges that may arise in increasing transportation in West Springfield. Screening and evaluation of the drivers hired for the van program must be a necessity to ensure they are not only safe drivers, but also embody empathy and a disposition suited for

interacting with the residents in need of mental health care. The development of the project might also face some degree of turbulence as well. Monthly surveys can be conducted in the beginning stages of the program to provide feedback for improvements that can be made to the program and gauge the residents' receptiveness to the program. Eventually these surveys can be annually conducted to gather long-term feedback from community members and assess the impact of this service on their lives.

The feasibility of the program is well supported by a cost-benefit analysis of the program. Some challenges obviously include the employment and salary of the drivers, van maintenance, gas, and storage. However, an emphasis on these potential issues can greatly improve the quality of life of West Springfield residents. This program is ultimately designed to aid in the prevention of social exclusion and diminishment of learned helplessness. The Florida Developmental Disabilities Council found that there are significant financial and social costs to a lack of transportation. For every \$1 invested by the program to aid those in need of transportation the average rate of return was \$8.35. The study found that overall transportation to hospitals is effective due to decreased medical costs and increased quality of life, as well as the power to combat the social exclusion of marginalized people. The measure of this transportation program's effectiveness specifically in West Springfield lies in the assessment of the interaction between multiple variables and objective outcome measures (i.e. missed or rescheduled appointments, delayed medication refills, changes in clinical outcomes). All of which require screening and maintenance of the costs associated with the continuation of the van program.

Ultimately, providing bus and shuttle services from the existing health organizations should be standardized within West Springfield. Not only is this the most viable option in their situation, but it is also effective in order to cater to more people who need transportation options to get to mental health and addiction service centers. Evidence-based research and existing programs have shown much promise in creating improvements to patient care. For instance, Taylor Regional Hospital recognized transportation as a major barrier preventing patients from getting regular check-ups, screenings and lab testing– the closest transportation services were only available an hour away from the hospital and this impeded patients from being able to make it to their appointment. By recognizing that lack of transportation interrupted care delivery, a hospitality van service was implemented for patients facing transportation issues. According to a policy brief on world transport, elders have a higher risk of becoming transportation dependent (Whitelegg, 2008). Adults ages 65 and older are among the two age groups that are vulnerable to lacking transportation. 38% of surveyed elderly Californians in 2001 reported that barriers to transportation made it difficult to access health care (Whitelegg, 2008). However, many frail, elderly people may avoid using public transportation out of fear. This research supports our proposal for West Springfield. In order to cater to those who lack the necessary access, the city of West

Springfield needs to make bus and shuttle services more readily available to more vulnerable populations in their city.

The increased accessibility of long-term bus and shuttle services in West Springfield would provide its residents with the ability to utilize the existing health care resources more. The lack of access to these services plays a large role in the impediment of appropriate mental care for the residents of West Springfield. By providing transportation to and from services such as rehabilitation clinics, patients can direct their focus on their health and treatment without the hindrance of access to care exacerbating their stress.

References

Kerschner, H. (2006). Transportation innovations for seniors. A report from rural America. Pasadena, CA: The Beverly Foundation

http://www.beverlyfoundation.org/library/ruraltransportation/innovations_report_rural.pdf

Helen Kerschner PhD & Marie-Hélène Rousseau PhD (2008) Volunteer Drivers: Their Contributions to Older Adults and to Themselves, *Gerontology & Geriatrics Education*, 29:4, 383-397, DOI: 10.1080/02701960802497969

Whitelegg, J. (Ed.). (2008). No Way to Go: A Review of the Literature on Transportation Barriers in Health Transport Policy for a Fuel Constrained Future: an overview of options. No Way to Go: A Review of the Literature on Transportation Barriers in Health Transport Policy for a Fuel Constrained Future: an overview of options (Vol. 14, pp. 1–23). Eco-Logica Ltd.

Case Study: Taylor Regional Hospital's Van Program Increases Access to Care for Patients: AHA News. (2018, January 18). Retrieved from <https://www.aha.org/news/insights-and-analysis/2018-01-18-case-study-taylor-regional-hospitals-van-program-increases>.

Tuckson, Reed V, Margo Edmunds, and Michael L Hodgkins. "Telehealth." *The New England Journal of Medicine* 377.16 (2017): 1585-1592. Web.

Johnston, J., E. Hindman, and J. Saurman. "MENTAL HEALTH EMERGENCY CARE BY TELEHEALTH IN WESTERN NSW." *Australian And New Zealand Journal Of Psychiatry* 48 (2014): 68-69. Web.

Team 5: Residents' Access to Mental Health Care

Problem Statement

Following the West Springfield site visit, it can be concluded that access to care is a significant issue in their community regarding mental health. Because the area is fairly spread out, it can be difficult for individuals to have the time or resources to obtain the health care they need. The most populated part of West Springfield is the very bottom of the town which is closest to a neighboring community, Springfield, where many of the hospitals and services are located that West Springfield citizens go to. Therefore, for individuals who live in the northern parts of West Springfield, accessing care is even more difficult. In areas that have a lack of transportation, the residents are hesitant to seek help simply because they do not have a way to travel to it. For those who do not own their own vehicles, they have to rely on public transportation and it is possible that transportation units do not even reach certain neighborhoods, excluding entire communities of residents. In cold and rainy weather, it is unlikely to assume a resident would walk to the bus stop if it is even a mile away from their home. Furthermore, there are various languages spoken in the town, however, much of the information about services is delivered in English. For individuals who do not speak English or English is not their first language, there are many difficulties with finding accessible care that they trust and being able to comprehend what resources are provided and where.

Existing Strategies

Middle School Screening Program

In a study conducted by Chatterji et al., a middle school screening program was implemented in a largely Hispanic neighborhood in New York City where most students came from low income households. While the cost of the screening program varied per year depending on the number of students, available staff, volunteers and other indirect cost, the cost-benefit analysis showed important data about the economic effectiveness of implementing screening into schools. In the long run, less money will have to be spent on treatment as diagnosis and prevention can be applied earlier. For the screening to be effective, there must be available social workers and treatment options for those who report mental illnesses. The neighborhood where the study was conducted, however, is in a very similar economic state to West Springfield and was able to utilize task-shifting when placing some of the duties from the school psychiatric to other staff.

Employee Wellness Screening

A second study has shown that the cost of implementing employee wellness screening into the workplace costs approximately \$60 to \$100 per employee however, this number can

change significantly based on the level of screening, volunteers available and number of employees. In West Springfield, because many of the jobs available are low paying or are not full time, employers may not have the incentives to spend money on their employees' mental health. However, as discussed in the research, there significant improvement in productivity that is often seen when mental health is addressed in the workplace which may be enough to encourage employers to incorporate screening.

Developmental Pathways Screening Program (DPSP)

A third study has shown a specific program -The Developmental Pathways Screening Program (DPSP)- to be successful when implemented in public middle schools. The DPSP includes a multistep process of screening conducted by school staff as well as clinical evaluations and referrals for further treatment for students who tested positive on the screening. This program was implemented at four schools and costs at each school were calculated using the number of students as well as the research staff's salary. After the study had concluded, the researchers proposed that money could have been saved by employing teachers to conduct the screenings as well as not conducting screening on children who were already being treated for mental health disorders. A multistep program such as the DPSP would be effective in a town such as West Springfield as they have shown to reduce dropout rates, improve performance within school, and, when utilizing school staff, can cost as little as \$8.88 per screening and \$113.66 for a referral proceeding a positive screening.

Screening at Jobs and Schools

Mental health has affected a wide range of children across the United States. According to the US Surgeon General's report, 20% of children need active mental health interventions, 11% have significant functional impairment, and 5% have extreme functional impairment. By having mental health care professions in school settings, these children can seek screening and treatment at a young age, decreasing their burden for dealing with mental illness. There are 10 schools in the West Springfield district, with a total of 4,146 students enrolled. This concludes that there is a sufficient market of those who would benefit from having mental health screenings in school settings. It will take the burden off of parents who are busy working full time jobs, and also help children seek help, whether or not they knew it was necessary. For adults who suffer from mental health illnesses, having these same physicians visit job sites in West Springfield such as Placin Inc (a plastic fabrication company), or the Connecticut Business Systems, also serves a role in targeting large populations of West Springfield members.

Justification: Why Screening at Schools and Workplaces is Best for the Population

Implementing screening strategies in schools and workplaces is effective for a multitude of reasons. First, by screening students and workers, the screenings can reach a vast number

of citizens as 21% of the population is under 18 and there is a 67% labor force participation rate. (Data USA) In the town of West Springfield, there are only two mental health services that advertise mental health screening services, thus, access to screening and prevention is a major barrier to treating mental illnesses. Many employees in lower income areas, West Springfield included, have jobs that pay by the hour, thus taking even one afternoon off to visit a primary care facility can mean losing a significant portion of a paycheck. By implementing these screenings in the workplace and requiring employers to block out time for these screenings to be run, employees not only are free from worry about losing money but also do not have to worry about travel. Beyond increasing accessibility for employees and students, having screening in schools and jobs allows for mental health to be more regularly discussed and less stigmatized.

Screening in schools and in the workplace will have intangible benefits as screening and prevention are the best way to allow resources to be allocated to those who need it most. By implementing screening into schools, this could decrease stigma around mental health as mental health will be more widely discussed and students will be educated on it more. In doing this, increased discussion and education will result in further normalizing mental health. Furthermore, within the workplace, people will feel more supported by their employers if management takes the time to prioritize employees' mental health. Knowing that this support is available can decrease stress, increase trust and lead to better health management overall.

These benefits however, are not met without costs as with any program, allocating resources, time and finances take away from these being contributed to a different program. When screenings are conducted in schools, it must be taken into consideration that time is being taken away from students' classes, lunch periods and free time to allow adequate time for all students to be screened and have the screenings evaluated. From the perspective of those conducting the screening, there is a cost to them as they must commute to schools and workplaces, or, if already present, must take the time to set up and conduct the screening.

Conclusion

Overall, literature has shown that screening in schools as well as in workplaces is both a cost and time effective way to prevent mental illnesses from going untreated. Although screening programs may come as a cost to employers initially, having these mental health resources will allow for greater retention rates and employees taking fewer days off for medical reasons, thus, in the long run, not only will individuals benefit from the screening but the employers will as well. Furthermore, in schools, screening will allow a greater number of students to be more aware of their mental health status and be referred for further treatment if necessary. These screening programs can lead to better support and

care at an attainable cost to the community, leaving West Springfield in a better position to address mental health moving forward.

References

Chatterji, P., Caffray, C., Crowe, M., Freeman, L., and Jensen, P., (2004) "Cost Assessment of a School-Based Mental Health Screening and Treatment Program in New York City" *Mental Health Services Research*, Vol. 6, (3) pp. 155-166 <https://link-springer.com.ezproxy.bu.edu/content/pdf/10.1023%2FB%3AMHSR.0000036489.50470.cb.pdf>

Data USA (n.d) Retrived from <https://datausa.io/profile/geo/west-springfield-town-ma/>

Langlieb, A., Jeffrey, K., (2005) How Much Does Quality Mental Health Care Profit Employers? *Journal of Occupational and Environmental Medicine*. 47 (11) pp. 1099-1109 doi: 10.1097/01.jom.0000177124.60460.25

Neighborhood Scout (n.d) Retrived from <https://www.neighborhoodscout.com/ma/west-springfield/schools>

Kuo, E., Stoep, A., McCauley, E., Kernic, M., (2009) "Cost-Effectiveness of a School-Based Emotional Health Screening Program" *Journal of School Health* Vol 79 (6) pp. 277-285

Team 6: Harm Reduction Policies to Address the Opioid Crisis

Introduction

The problem that our group chose to focus on is the opioid crisis that has had devastating effects on individuals, families, and communities throughout the United States, including West Springfield. Within this community, we have observed a lack of programs to assist people with substance use disorders in terms of prevention of negative health effects and rehabilitation. The programs that are currently established in the community are run out of government facilities and the police department, which deters many users from seeking help due to the stigma of their disorder and fear of the potential consequences.

Implementing similar programs in an environment where those with substance abuse issues would be more comfortable may increase the population's willingness to seek help from the existing resources. Furthermore, expansion of programs targeted at harm reduction may reduce the likelihood of premature deaths and negative health outcomes for people with substance use disorders in West Springfield.

Possible Interventions

Syringe Service Program

The first strategy to address the lives lost due to the opioid epidemic might start with expanding harm reduction policies. These policies accept that substance abuse is a common feature of human experience and acknowledges addiction as a medical issue. Current harm reduction policies that have been effective in combating the effects of substance abuse include opioid substitution maintenance therapy (methadone), needle and syringe exchange programs, supervised drug consumption rooms, and overdose prevention through peer-based naloxone distribution (Bosque-Prous, 2016). These types of policies would provide access to clean syringes, disposal sites for used needles, supervised consumption services, and drug-checking for harmful substances that may increase the likelihood of overdose and harmful outcomes in those who use drugs. There is sufficient evidence from other countries that proves the effectiveness of harm reduction policies in places like Europe and Latin America (EMCDDA, 2010). In addition, these policies might include the opportunity to receive drug treatment rather than incarceration in cases of non-violent drug possession cases and the expansion and promotion of Good Samaritan laws (Drug Policy Alliance, 2019). Harm reduction policies prioritize achievable and feasible goals to reduce drug-related harm and death, and therefore help build a strong foundation for West Springfield's public health response to the opioid crisis.

The Massachusetts Department of Public Health supports syringe service programs to allow people who inject drugs access to clean syringes and needles, a place to dispose of these

instruments, and access to other services, which provide testing for infections like Hepatitis C, HIV, and other STIs, education about overdose, and accessibility to Narcan (MDPH, 2019). Harm reduction policy implementation can be controversial due to the perceived counteractive nature of the government providing a means for people to practice drug use. However, the benefits of syringe service programs outweigh the costs. Access to clean syringes and safe disposal sites significantly reduces the risk of transmission of harmful infections and viruses that result in enhanced negative health outcomes (MDPH, 2019). This is demonstrated through a study that looked at syringe service programs in urban, suburban, and rural areas in the United States. The study states that between 1990 and 2006, the U.S. saw an estimated 80% decline in the rate of HIV incidence among people who inject drugs, largely due to harm reduction programs (Jarlais, 2013). In addition, the study showed that in urban areas where drug injection use was high, about 60% of urban syringe service programs dispatched over 50,000 syringes, and in suburban areas, programs dispatched between 10,000 and 50,000 syringes (Jarlais, 2013). This data shows that syringe service programs can have very significant impacts on the communities they are employed in, by reaching a large portion of the drug-using community and reducing rates of disease, not to mention prevention of overdoses and education programs as well.

Emergency Response Education

The second strategy is increasing access to education surrounding issues related to drugs and substance abuse is another intervention that may be useful in West Springfield. The American Heart Association is addressing the ongoing national opioid crisis by providing two courses to educate lay responders and all levels of clinical healthcare providers and emergency responders on delivering immediate treatment and care for opioid overdose victims. The online courses are called “Opioid Education for Healthcare Providers” and “Opioid Education for Non-Clinical Staff and Lay Responders.” The American Heart Association trains more than 22 million people globally every year in responding to cardiac arrest and first aid emergencies (“Online course to facilitate”, 2018).

The strength of adding online courses is that it provides an increased amount of preparation for the general public, especially bystanders. While studies to determine the effectiveness of these programs do not currently exist, we believe it is a possible intervention worth pursuing to increase safety education and awareness regarding the opioid situation.

Access to Naloxone

Another strategy to help individuals living with substance abuse is the distribution of naloxone as a readily available and over the counter medication. In 2018, there were fourteen confirmed opioid related-overdose deaths of West Springfield residents, an increase from eleven deaths in 2017 (“Current Opioid Statistics”, 2018). Naloxone, also referred to as Narcan, is a drug commonly used to reverse opioid overdoses and can be purchased either with or without a prescription at pharmacies across Massachusetts (“How

to get Naloxone”, n.d). In 2011 Scotland became the first country to distribute naloxone kits to individuals at risk of overdose, with a specific focus on prisoners. By 2019, the program’s results showed that four weeks after being released, the opioid-related deaths of former prisoners was 50% less than when the number of overdoses when the program was introduced (The Lancet, 2019). In a review of Scotland’s National Naloxone Programme, the Lancet suggested that the total number of naloxone emergency kits should be more than twenty times the country’s opioid-related deaths, and kits should be given to opioid users for them to distribute to people who could help them in an emergency (The Lancet, 2019).

Although Massachusetts allows individuals to purchase naloxone kits from many pharmacies across the state, many people remain unable to afford them. Many private insurance plans as well as MassHealth cover naloxone kits, however, uninsured West Springfield who are at risk of overdosing may have difficulty paying for the medication. As another community and health-based intervention, we recommend that West Springfield provides emergency naloxone kits to the population identified as at risk of an opioid-related overdose who do not have insurance. West Springfield should also provide resources explaining insurance coverage and naloxone so individuals who have the appropriate insurance may buy these important emergency response kits for themselves, friends or family. As exhibited by the study of individuals who received naloxone in Scotland, the drug has the potential to save lives by significantly decreasing the rate of opioid-related overdoses.

Recommendation and Justification

Primary Intervention Strategy

Expansion of harm reduction policies could have far-reaching impacts on West Springfield, and we believe that expanding on existing resources to develop syringe programs in particular is a viable option for the community. Syringe service programs already exist throughout Massachusetts in Boston, Cambridge, Dartmouth, Framingham, Provincetown, Springfield, Worcester, and more. However, West Springfield has not implemented one of these programs yet. Therefore, we recommend that as a primary intervention strategy, West Springfield should implement a model of a syringe service program as demonstrated by other cities and towns throughout Massachusetts. The fact that this practice is in place in surrounding areas would make the transition into this program easier for community leadership and the public. West Springfield’s board of health has the jurisdiction to approve the establishment of a syringe service program, and then the program could be implemented in medical settings and community settings. This could potentially be funded through grants from the Massachusetts Department of Public Health (MDPH, 2019).

Feasibility

Various types of syringe programs can be economically manageable through task shifting and training and informing stakeholders of the issues. For example, requiring middle school and high school health classes to teach about all the issues surrounding opioid substance abuse. Educating them about the risk of disease transmission through sharing needles, providing information about syringe disposal sites, and addressing mental health of those whose families have been affected by the crisis. Providing information about Good Samaritan laws and encouraging bystanders witnessing an overdose to seek emergency services. Training teachers to detect and then address signs of distress in students whose family, friends, and even themselves are affected by the crisis.

A challenge would be developing a new comprehensive needle exchange program since it might not be feasible currently for West Springfield. However, harm reduction programs and policies which are more economical and feasible can be pursued. Enhancing already existing community health centers with substance abuse programs to table syringe services can fill unmet need in community. Mobile needle exchange programs have been established throughout the country, including Massachusetts, that do not require an unreasonable amount of funds.

As of July 2016, the Massachusetts Department of Health allows local health departments to approve the establishment of needle exchange programs (Syringe Service Program locator, 2016). Similar programs have been established throughout Massachusetts, including in Springfield. The program in Springfield is administered through Tapestry Health Systems Inc. which provides community-based care in regards to sexual health, family planning, HIV/AIDS, and drug addiction and overdose prevention. Tapestry also has a clinic established in West Springfield: WIC Family Nutrition, which provides services such as nutrition education, maternal and child care support, immunizations, referrals, and more (“WIC Family Nutrition,” 2019). Approving the development of a needle exchange program in West Springfield and extending this to the Tapestry clinic already established in West Springfield would be feasible for the community, especially if a grant could be obtained. However, even if not, expanding on current resources and shifting these resources to a syringe program that is accessible to the community and cost-effective would be feasible for West Springfield.

Cost Benefit Analysis

The application of harm reduction policies in West Springfield may have significant impacts on the lives of people who exhibit substance abuse in terms of drugs, which may include reduced risk of the spread of diseases such as HIV, reduced risk of drug overdose, and the opportunity for education regarding addiction and rehabilitation. Specifically, the option of introducing needle exchange programs to clinics or community-based centers would not only

contribute to the aforementioned goals, but also could contribute to a reduction of stigma in the community and increased access to safe practices for people suffering from drug addiction. While there may be various benefits, there also may be various challenges. Harm reduction policy may be looked upon in a negative way in the community and may not initially be widely accepted. Additionally, allocating more funding and attention to syringe services and other harm reduction policies takes away from resources dedicated to other short-term and long-term health needs of the community. However, in the long run, syringe service programs are proven to be beneficial by reducing costs. A cost-effectiveness analysis of a New York City needle syringe exchange estimated that the program would result in a baseline one-year savings to the government of \$1,300 to \$3,000 per client. Another cost-effectiveness analysis estimated that expanding access to clean syringes through an additional annual U.S. investment of \$10 million would result in 194 new HIV infections averted in one year, a lifetime treatment cost savings of \$75.8 million, and a return on investment of \$7.58 for every \$1 spent (from the national perspective) (“Access to clean syringes”, 2016). Money that may otherwise go into treatment of infection or hospital stays could be avoided by investing money into preventative measures like a syringe service program. Ultimately, the benefits of reducing harm to people who use drugs and potentially taking steps to reduce overdose and introduce rehabilitation would outweigh the potential challenges.

Conclusion

The opioid epidemic is a health priority that we believe can best be addressed in West Springfield by the implementation of syringe service programs. Over the last several years, the crisis has taken a large toll on the West Springfield community, and we observed a lack of resources and programming available to combat this ongoing substance abuse crisis. Educating youth and town residents in conjunction with an expansion of substance abuse prevention programs and implementation of a mobile needle exchange program offers West Springfield feasible means of reducing opioid-related deaths in the future. Although syringe service programs may carry stigmas in the community, through education and a change in the allocation of resources dedicated to battling the crisis, these programs can be more widely accepted and implemented. In the future, leaders and stakeholders of West Springfield should continue to monitor trends regarding drug abuse, overdose, and projected need for harm reduction programs. In addition, steps should be taken to research the cost and practicality of implementing a syringe service program or possibly task shifting resources to improve community access to life-saving, preventative, and cost-effective harm reduction policies.

References

Access to clean syringes. (2016, August 5). Retrieved from <https://www.cdc.gov/policy/hst/hi5/cleansyringes/index.html>.

Bosque-Prous, M., & Brugal, M. T. (2016, November). Harm reduction interventions in drug users: current situation and recommendations. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/27837802>.

Britt, A. (2019, January 29). Syringe Access Program. Retrieved from <https://www.tapestryhealth.org/syringe-access-program-north-adams-copy/>.

Current opioid statistics. (2018). Retrieved from <https://www.mass.gov/lists/current-opioid-statistics#updated-data-q2-2019-as-of-august-2019->.

Hedrich, Dagmar et.al. "Harm Reduction: Evidence, Impacts and Challenges."European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). 2010. Retrieved from http://www.emcdda.europa.eu/publications/monographs/harm-reduction_en

Information for community members about how to get naloxone. (n.d.). Retrieved from <https://www.mass.gov/service-details/information-for-community-members-about-how-to-get-naloxone>.

Jarlais, D., Nugent, A., Solberg, A., Feelemyer, J., Mermin, J., & Holtzman, D. (2015). Syringe Service Programs for Persons Who Inject Drugs in Urban, Suburban, and Rural Areas — United States, 2013. *Morbidity and Mortality Weekly Report*, 64(48), 1337-1341. Retrieved from <https://www.jstor.org/stable/24856925>

Online course to facilitate improved outcomes of opioid overdoses. (2018, December 18). Retrieved from <https://newsroom.heart.org/news/online-course-to-facilitate-improved-outcomes-of-opioid-overdoses>.

Syringe service programs. (n.d). Retrieved from <https://www.mass.gov/syringe-service-programs>.

The Lancet, & The Lancet. (2019, January 24). Take-home naloxone: a life saver in opioid overdose. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0140673619301539?via=ihub>. WIC Family Nutrition. (2019, January 28). Retrieved from <https://www.tapestryhealth.org/wic-family-nutrition-3/>.

Team 7: Social Workers as a Substance Abuse Treatment Option

Problem Statement

Our group has identified substance abuse as the primary issue in West Springfield that we intend to address. As stated by public health officials of West Springfield, there is a lack of resources regarding current addiction and recovery programs. According to the Massachusetts Department of Public Health, the number of opioid related deaths increased from 114 in 2017 to 208 in 2018 in Hampden county, indicating a concerning upward trend of substance use¹. Moreover, the number of admissions for substance abuse rose from 437 in 2017 to 587 admissions in 2018². 61.1% of those admitted in 2017 had used heroin in the last year. The opioid crisis could be a contributing factor to larger issues within the city, such as the homeless and housing-insecure population and broken family homes, as mentioned in the presentation. Substance abuse presents itself as one of the most prominent mental health issues in the city of West Springfield, yet is also met with the least resources.

With the lack of resources and options for how the city can deal with the growing issue of substance abuse, there is an evident gap in available treatments that needs to be addressed. Members of the health department raised concerns about having too many responsibilities, potentially keeping them from focusing on the growing health concern of the opioid epidemic. The issue of substance abuse requires many intervention efforts, from preventive measures, safe usage strategies, overdose training, and necessary rehabilitation to ensure recovery and sobriety. With all these duties required to deal with this problem, we believe West Springfield is understaffed in respect to a more specialized workforce for this massive problem they face. Expanding the workforce to redistribute the growing amount of responsibilities in a more specialized manner could help contain the issue and allocate the proper attention needed.

Brief Review of Three Existing Strategies

Needle Exchange Program

The opioid epidemic in Massachusetts has clearly impacted West Springfield. According to data posted in August 2019 by the Massachusetts Department of Public Health, the number of opioid-related overdose deaths in West Springfield rose from 6 in 2014 to 14 in 2018, a 133% increase (*"Opioid related Overdose,"* 2019). Substance abuse is a public health concern in and of itself, but the increase in opioid usage is especially significant given the additional health effects with which it is associated. For instance, in 2015, the state prevalence in Massachusetts of people living with diagnosed HIV infection was a rate of 338 cases per 100,000 people. Of those cases, 26.5 percent of the male cases were attributed

to injection drug use (IDU) or male-to-male contact and IDU; of the female cases, nearly one third, 31.5 percent, were attributed to IDU (*Massachusetts Opioid Summary*, 2019). We believe that by addressing drug addiction in West Springfield, we will be able to effectively and efficiently improve the overall health of the city.

One way in which IDU has been addressed is through needle exchange programs. These programs offer the public a place to properly dispose of used needles as well as dispense clean syringes in an attempt to reduce the risk factor of sharing dirty needles and spreading infectious diseases, such as HIV. The effectiveness of needle exchange programs has been proven on multiple occasions. For example, a study conducted on the needle and syringe programs in Australia found that cities that introduced programs had a mean annual 18.6 percent decrease in HIV prevalence compared with a mean annual 8.1 percent increase in cities that had never introduced programs (*Return on Investment*, 2002). Domestically, a study that assessed the effect of legalization of needle exchange programs in New York in 1992 showed that in 1990 the prevalence of HIV in injection drug users admitted to a detoxification program was 50 percent compared to 17 percent in 2002, after the legalization (Des Jarlais et al., 2005). As can be seen, there is convincing evidence of the effectiveness of needle exchange programs on public health.

Though Massachusetts explicitly legalized needle exchange programs, West Springfield currently does not offer such a program. According to the North America Syringe Exchange Network (NASEN), the closest center that offers this service is the Tapestry Health Syringe Access Program in Springfield (*SEP Locations*, 2019). In order to address the public health issue of substance abuse and its other related health effects in West Springfield, our group recommends that the city apply to NASEN to start a needle exchange program. Ideally, with the introduction of this program, a measurable outcome would be to see a reduction in the incidence and prevalence of HIV within the West Springfield population.

Providing Subsidies for Naloxone Distribution

As previously stated, the use of opioids in the city of West Springfield, MA is a central cause of concern. In the last 10 years, overdose deaths in the United States have risen by 3 times what they were and Massachusetts follows this trend (Tobin et al., 2018). In the Hampden County, the number of overdose deaths rose by 82% between 2017 and 2018 (Tobin et al., 2018). To combat this rise in death, another solution for West Springfield is providing greater availability of naloxone-brand name Narcan.

A community-based approach to combat overdoses has been implemented and effective in many communities. Last year, the city of Framingham received a grant of \$40,000 and is piloting a program that “makes narcan as prevalent in the region as CPR kits” (“Information for community members”). Naloxone awareness is made through opioid overdose education and naloxone distribution (OEND) programs (Tobin et al., 2018). Free naloxone, however, is

normally aimed for first-responders, drug users, and their families (“Mass. health departments,” 2018). Massachusetts has a standing order for Narcan for any resident, yet this can still be expensive (“Information for community members”). The CDC states that an increase in access to Narcan does support a decline in overdose deaths, specifically for those states that allow a pharmacy direct ability to give a resident Narcan (“Easier access to Naloxone,” 2019). This strategy can be debated as to how it affects the behavior of drug users, but is still seen as critical in the process of attacking the opioid epidemic. In the “cascade of care,” however, possession of Narcan remains the biggest gap among people that use drugs (Tobin et al., 2018). An expansion of naloxone access and distribution in West Springfield would be a promising intervention to address the opioid use and overdose prevalence in the city.

Hiring and Consulting More Social Workers

One solution we have selected is to hire a social worker to work with the health department and bridge the gap in needs. While in West Springfield, the Department of Health representative discussed how she personally does consulting, and checks in on cases she previously worked with. She voiced a concern and need for someone to fulfill that role in the community, so she could focus on her specific job duties instead.

We propose that the city hire a mental health and substance abuse social worker, to work with clients whose cases fall into these areas. The job of a social worker typically includes diagnosing clinical disorders, identifying client goals, formulating a plan to meet those goals, connecting clients with resources, and working with clients to achieve the goals set out in their individual plans (“Mental Health and Substance Abuse Work,” 2019). These are all essential needs when working with a population dealing with substance abuse, as follow-up and check-ins post-overdose are essential in limiting recurring episodes.

One study focused on the effectiveness of social worker’s interventions on opioid addicts. A key finding was that the, “intervention of social work based on group and case work was effective on general health of the addicts, improved the biological aspects of general health (based on a GHQ) and social functioning, and reduced their depression” and further claimed that “the presence of social workers at addiction clinics can contribute to general health and can prevent relapse, reduce anxiety and insomnia, increase self-recognition and cognition of strategies for coping with stress, and improve the proper social behavior” (Reheb et al., 2016). Having a social worker thus could deal with the interconnected issues of mental illness and substance abuse.

By hiring a social worker, case follow-up would be taken care of and chances of relapse would be reduced. The individualized and personal nature of substance abuse and mental illness requires one-on-one interventions, such as those that a social worker can provide.

The necessary follow-up and monitoring of addicts is a key aspect that seems to be overlooked in West Springfield, and is something more attention needs to be brought upon.

Selection of Intervention Strategy

We believe that hiring a social worker is the best intervention for the city of West Springfield. As elucidated by the city representatives, the city has a limited budget that they can allocate to mental health and substance abuse programs. Moreover, the city's health department is understaffed. Rather than doing any one job to the best of their abilities, they are forced to perform multiple jobs, even those they may not be specifically trained to perform. Allocating money to hire a social worker would provide not only mental health and substance abuse patients with better personal care, but it would allow the city health department to focus more fully on other job tasks. For example, in the extra time this would give some of the city health department workers, they could focus on grant writing and data collection, which would ultimately allow the health department to grow and solve other issues in their community.

The positive impacts of social work has been evaluated throughout literature, demonstrating how social workers can reduce costs and impact their local communities positively. For example, a review (Joo et al., 2016) concluded that social workers contribute to a reduction in health care costs due to case-management. Social work analyzes unique patient needs, and equips patients with multiple interventions that meet their cultural and social needs, thus improving followup and compliance. These qualities help to improve the quality and specificity of care for substance abuse patients in and outside of hospital and intervention settings.

Another advantage to social work is that it does not solely rely upon medical models of disease; it utilizes resources *currently available* to encourage recovery (Burke et al., 1997). This suggests that social work is one strategy for cheaply achieving multiple objectives. Beyond this, West Springfield is not classified as a rural town, despite sharing many of the financial and social struggles of a traditional rural community. One study in particular gave us ideas for how a social worker can assist a rural community, but also make a significant impact in a town like West Springfield. In Riebschleger et al., 2007, they conducted interviews with focus groups who discussed the importance of knowing and connecting people to “unofficial resources” in the town and how that can help the mental health of the community. This would be crucial in addressing the opioid issue dealt with in West Springfield. Focus groups also discussed the importance of understanding the workings of the community and how interwoven all the people and organizations are, in order to connect to the people and suggest resources. This is a central reason for having a social worker for the whole city of West Springfield, as they would be able to understand the dynamics and issues unique to this community, and how to access appropriate resources.

Additionally, research has demonstrated that social workers are effective in addressing opioid addiction. Social workers utilize multidimensional interventions including eliminating drug-abusing behaviors, increasing interpersonal relations, problem solving, self-decision making, improving self-confidence, and increasing self-efficacy and self-management. They also focus on all parts of an addict's life, including biological, psychological, social, and family aspects. Raheb et al., 2016 in particular indicated that these non-pharmacological interventions were effective in improving the general health of opioid addicts. The effectiveness of social workers in bettering addicts mental health, physical health, and improving their social skills that this study has indicated is important for West Springfield to consider to understand the advancements that social workers can provide.

Lastly, officials speaking on behalf of West Springfield mentioned their desire for a social worker for the city as a whole. While the city's school systems and various businesses have social workers who work for them, West Springfield as a whole does not employ a person in such a role. For these reasons, we believe that the integration of a social worker as an intervention would be both straightforward to implement and readily-accepted by representation.

Rationale

Feasibility

From what we have gathered during our time researching West Springfield and communicating with representatives for the city, hiring a social worker would be the most immediately feasible course of action for them to take. On the phone call with Laurie, she mentioned that West Springfield's initial plan was to hire a social worker, partially funding the individual's salary through a grant and eventually transitioning it to a completely self-funded position. The city had previously applied for a grant that would cover the cost of hiring a social worker, but it was not awarded to them. This fact dissuaded us from suggesting that West Springfield repeat the grant proposal process. However, research from our whole class has shown that there actually is an available budget for a social worker; it is just a matter of reallocating funding in order to accommodate the new employee. Social workers are not excessively expensive to hire, with many costing less than \$50,000 per year.

Unfortunately, representatives of West Springfield may run into difficulty proposing a reallocation of funds. Mental health is typically put on the backburner, and it can be hard to change that culture. Furthermore, some people do not believe that addicts deserve help, which could waver public support of funding for a program that would do just that.

Additionally, it may be difficult to evaluate just how effective the social worker is. It is hard to define how hiring someone to support West Springfield's population in a qualitative way

such as this can actually aid the community. If the city chooses to go forward with this course of action, it will be important for officials to come up with some sort of check-in process with the new social worker in order to evaluate the impact of their work and be able to relay it to the community. One way of measuring effect could be, for example, measuring changes in recovery program enrollment, numbers of overdoses, or reported addiction rates.

Finally, West Springfield might have difficulty finding social workers interested in working in or relocating to West Springfield, in which case the city would need to consider offering incentives. We believe that both the diversity of the population in West Springfield, as it is home to many refugees, as well as the diversity of issues the social worker would be targeting, from drug addiction to hoarding, should be enticing to potential hirees. Additionally, we propose that West Springfield consider offering the position as an internship for one or more social work students. This plan would help reduce costs on the town, as well as potentially heighten interest from suitable candidates.

Cost-Benefit Assessment

The main cost of hiring a social worker will be the salary. In Western Massachusetts, the average cost of a social worker with a Master of Social Work is \$62,474 a year (indeed.com). There will also be costs associated with employee benefits and insurance as decided on by the local government hiring. An office space will need to be provided to the social worker, but that can be arranged within the city office or be based out of the local community center or school. These options would make them accessible to the community.

A major benefit of having a social worker for the city of West Springfield would be the addition of resources and alleviation of workload for the other health department members. Many of the stakeholders discussed with us the amount of work they find themselves doing for the community members that is outside of their job description. A social worker would be able to provide follow-up to community members and connect them to the numerous resources presented to us in our visit. There would have to be time built in to hire a social worker and for them to be made aware of local resources, but once that process is complete, this worker would quickly become an integral part of West Springfield. It is important to consider the applicant's ability to connect with the community in the hiring process in order to ensure an easy transition.

A less expensive alternative and short-term plan would be to hire social work interns. The stakeholders discussed hours and continuity of care as shortfalls of this plan in the past, but we suggest hiring two interns who are candidates in their Master of Social Work. This would provide teamwork and continuity throughout the work week on projects and caseloads. These workers would be less expensive than a full-time social worker but would not have the same reach and capabilities. A member of the local government or community center would also have to look over them in their work.

Possible Future Directions

We acknowledge that hiring a community social worker may not be an entirely feasible option at the present moment for West Springfield due to budget constraints. First and foremost, we support the city's previous effort to apply for a grant to partially fund a future social worker's salary and then transition into completely self-funding the position; we fully encourage the city to pursue that route again. However, a more immediate and feasible option is necessary until hiring a full-time community social worker is more realistic. For this reason, we recommend that West Springfield partner with local colleges and universities with social work graduate and/or certificate programs. Students pursuing higher education in social work typically must complete a certain amount of hours in a degree-related internship. West Springfield can recruit multiple social work students to fill the need for a community social worker. Though these students would require a supervisor and would not be a long-term solution, they would allow for West Springfield public health employees to task shift responsibilities. This would be a little to no cost solution while funds are acquired for a full-time community social worker.

Additionally, we recommend that West Springfield have conversations with their current public health workers to gauge what work responsibilities do not fit within their job descriptions and can, therefore, be assigned to the new community social worker or the social work interns. This can help to engage the people of West Springfield who will be the first to be affected by the hiring of a community social worker. By having these conversations, there will be a better understanding of the benefit of assigning these extraneous tasks to a specific individual, allowing current workers to devote more time and energy to their job-specific tasks.

Conclusion

Knowing that the opioid crisis is increasing the prevalence of substance abuse in West Springfield, a specialized response is needed more than ever. The addition of a social worker can help to fill in the gaps for the essential interventions and follow-up efforts for those affected by substance abuse. Along with helping to better patient's lives, the social worker will also serve as a way for the current department of health to better allocate their duties. They will serve as a key resource and be heavily utilized by this community's various needs. While hiring a social worker is a feasible and cost-effective proposal, hiring an intern that covers the social worker's duties could also be an effective short-term solution. We encourage West Springfield to hire a social worker to better their community's unmet needs in regards to substance abuse and provide the necessary individualized attention that this crisis solicits.

References

Burke, A. C., & Clapp, J. D. (1997). Ideology and social work practice in substance abuse

settings. *Social Work*, 42(6), 552-562.

Commonwealth Department of Health and Aging. (2002). *Return on Investment in Needle and Syringe Programs in Australia*. Retrieved from <http://www.ffdlr.org.au/campaigns/docs/ROI%20on%20NSP%20Summary.pdf>

Des Jarlais, D. C., Perlis, T., Arasteh, K., Torian, L. V., Beatrice, S., Milliken, J., ... & Friedman, S. R. (2005). HIV incidence among injection drug users in New York City, 1990 to 2002: use of serologic test algorithm to assess expansion of HIV prevention services. *American Journal of Public Health*, 95(8), 1439-1444.

Easier Access to Naloxone Linked to Fewer Opioid Deaths. (2019, May 14). Retrieved from <https://directorsblog.nih.gov/2019/05/14/study-finds-easier-access-to-naloxone-cuts-opioid-deaths/>.

Information for community members about how to get naloxone. (n.d.). Retrieved from <https://www.mass.gov/service-details/information-for-community-Members-about-how-to-get-naloxone>.

Joo, J. Y., & Liu, M. F. (2017). Case management effectiveness in reducing hospital use: a systematic review. *International nursing review*, 64(2), 296-308.

Massachusetts Department of Public Health. (2018). MA Opioid-Related EMS Incidents 2013-September 2018. Retrieved from <https://www.mass.gov/files/documents/2019/02/12/Emergency-Medical-Services-Data-February-2019.pdf>

Massachusetts Department of Public Health. August 2019. *Opioid related Overdose Deaths by City* [PDF file]. Retrieved from <https://www.mass.gov/files/documents/2019/08/21/Opioid-related-Overdose-Deaths-by-City-Town-August-2019.pdf>

Mass. health departments equipping public with naloxone. (2018, April 7). Retrieved from <https://www.ems1.com/addiction/articles/mass-health-departments-equipping-public-with-naloxone-c0eU15yU7bvIMpAB/hjg>

Mental Health and Substance Abuse Work. (2019). Retrieved from <https://www.mswguide.org/careers/mental-health-and-substance-abuse-social-work/>.

National Institute on Drug Abuse. March 2019. *Massachusetts Opioid Summary*. Retrieved from <https://www.drugabuse.gov/opioid-summaries-by-state/massachusetts-opioid-summary>

Raheb, G., Khaleghi, E., Moghanibashi-Mansourieh, A., Farhoudian, A., & Teymouri, R. (2016). Effectiveness of social work intervention with a systematic approach to improve general health in opioid addicts in addiction treatment centers. *Psychology research and behavior management*, 9, 309.

SEP Locations. (n.d.). Retrieved from <https://nasen.org/map/?go=process>.

Tobin, K., Clyde, C., Davey-Rothwell, M., & Latkin, C. (2018). Awareness and access to naloxone necessary but not sufficient: examining gaps in the naloxone cascade. *International Journal of Drug Policy*, 59, 94-97.

Team 8: Community Task-Based Intervention for Hoarding

Problem Statement

According to the representatives from West Springfield, the number of reported instances of hoarding, specifically within the elderly population, has been climbing. Previous studies conducted on hoarding disorder have demonstrated that over 40% of complaints to health departments were made by elder service agents (Steketee et al., 2001). Research shows that individuals who hoard are significantly older than those who do not, indicating that there is a higher prevalence as age increases (Steketee et al., 2001). There is an increasingly large population of people over the age of 65 in West Springfield, 15.2% according to the 2010 census, which means a greater number of individuals at risk (U.S. Census Bureau, 2010). Hoarding can not only be indicative of physical or emotional distress, including mental health disorders such as depression or obsessive-compulsive disorder, but it can also cause significant problems with sanitation, personal hygiene, and other activities of daily living. The prevalence of hoarding is so substantial in the West Springfield population that it has been brought up by numerous shareholders in the community. Implementing an intervention for these elders would increase the quality of life for a significant portion of West Springfield population and allow for the possibility to combat possible underlying mental health conditions.

Existing Intervention Strategies

One possible intervention for West Springfield to address the prevalence of hoarding is to use a combination of enforcement and support interventions to engage in a collaborative community approach, as presented by Dr. Janet Spinelli at the 2018 Aging Adults and Evidence Based Practices Conference. Enforcement interventions are interventions that are mandated or non-consenting, such as eviction by a landlord or loss of child custody by social workers. Support interventions are interventions that avoid pressure to change and do not enforce extreme changes. Support interventions are often provided by friends, family members, or advocates, and Spinelli (2018) explained that this includes supportive dialogue such as “is this something you want help with?” or “do you see this as a problem for yourself?”. According to Dr. Spinelli (2018), enforcement interventions used without support interventions often lead to severe distress, increased attachment to possessions, or defensive or resistant behavior. One aspect of this intervention tactic that would make it effective for the West Springfield population is the affordability. This intervention does not require the town to hire more mental health specialists or funding, it would simply require individuals to be educated about how to apply this collaborative community approach to combat hoarding. Although this intervention is affordable, it would be difficult to use in West Springfield because there is not ample information about the approach aside from a

PowerPoint presentation published by Dr. Spinelli from the Aging Adults and Evidence Based Practices Conference.

Hoarding interventions often implement cleaning and organizing programs, but community-based interventions such as hoarding task forces aim to address the underlying causes of Hoarding Disorder. Past task forces have had success using social work and mental health care to help people in the community who struggle with compulsive hoarding. The first step in effective task forces is initial referral or case consultation followed by a home visit (Firsten-Kaufman, Broker, & Hildebrandt, 2016). After the home visit, there is an assessment of the case using these tools: Hoarding Rating Scale (HRS), the Clutter Image Rating Scale (CIR), the Saving Inventory-Revised (SIR), and the Service Utilization Questionnaire (SUQ). According to Chater, Shaw, and McKay the assessor should then ensure one's personal safety, assess the safety of the site, identify the service goals, and convene a team to handle the specific case. The task force's focus should be on safety, minimizing loneliness, empowerment, harm reduction, and education (Firsten-Kaufman, Broker, & Hildebrandt, 2016). According to the Evidence Exchange Network implemented by Firsten-Kaufman and colleagues (2016), their findings do not specify who should be on the hoarding task forces, but that it should be based on the needs of the individual. Generally task forces have involved fire services, environmental and safety protections, public health, housing, mental health, ambulance services, nursing, professional cleaning and organizing, social workers, psychologists, general practitioners, landlords, senior services, and animal control with one agency serving as the coordinating unit. These groups often assist on a voluntary basis.

The task force then establishes a services roadmap "along with common guidelines, protocols, and training material that all collaborating agencies can use. Several case studies highlight the central role of social workers or community nurses as care coordinators, system navigators, and patient advocates" (Firsten-Kaufman, Broker, & Hildebrandt, 2016). A hoarding task force in Brookline collaborates between the Brookline Health Department, the Brookline Community Mental Health Center, and the Brookline Council on Aging to implement programs to assist their residents (Brookline Hoarding Task Force, n.d.). A positive aspect of the task force method is that it provides individual and personalized care to people with Hoarding disorder, and consolidates local resources with volunteer work to make an impact. The community task force has reportedly been the best solution to hoarding but poses significant problems in implementation because of insufficient funding, the amount of time required, and a shortage of mental health providers with specific training (Firsten-Kaufman, Broker, & Hildebrandt, 2016). Tailoring task forces to individuals affected by hoarding proves to be time consuming and expensive, but has had the effective and positive results.

Another potential intervention method includes implementing a specialized Cognitive Behavioral Treatment (CBT) for treating compulsive hoarding in an elderly population (Turner, Steketee, & Nauth, 2010). This treatment was devised to specifically target the elderly population with hoarding problems. There is limited research on this special population, and few intervention strategies have been proposed for this public health issue. In this pilot study, 11 clients were treated over the course of 11 to 13 months. Weekly 1-2 hour sessions were scheduled mainly at home, but some sessions in the office as well. The treatment followed the guidelines proposed by Steketee and Frost (2007) in their book *Compulsive Hoarding and Acquiring: Therapist guide* as well as *Motivational Interviewing techniques* by Miller and Rollnick (2002). The therapists worked using cognitive methods to try and help clients deal with the discomfort revolving organizing and moving objects out of sight. With the 6 clients that completed this study, there was a significant improvement in their ability to get rid of objects and to put an end to excessively acquiring objects. This pilot study had a very small sample size, but shows clear effectiveness with this special population. However, Turner, Steketee, and Nauth (2010) noted the difficulties they experienced with attrition due to the low socioeconomic burden the elders face, and also noted it will be difficult to find elders who will stay engaged and on top of therapy because of comorbidities (Turner, Steketee, & Nauth, 2010). Therefore, this CBT intervention may not be effectively implemented in West Springfield.

Our Proposed Intervention

The most viable method for treating compulsive hoarding among the elderly population of West Springfield involve community-based interventions, such as hoarding task forces, as outlined by Firsten-Kaufman and colleagues (2016). The main strength of this intervention is that it not only aims to treat symptoms of hoarding, but also to understand the root cause of the disorder. The intervention is multifaceted, implemented through different sectors such as social work and mental health care. This allows the issue to be addressed in a broader sense, which could help decrease hoarding rates significantly. One of the main strengths of the task force lies in its level of specificity while providing professional psychological treatment to the target population- the elderly. It holds the potential of contributing greatly to clinical research on the matter and increasing awareness as well as availability of solutions. Through research on the elderly population of West Springfield, we can aim to generalize our findings further and reduce the severity of hoarding in the upcoming generations.

Our multidimensional approach to tackling the hoarding problem in West Springfield aims to create an intimate community around the person affected by the hoarding disorder to aid them in various aspects of his or her life. This step-by-step approach begins with a referral to the task force and assessment of the severity of the condition by conducting home visits. The assessment is followed by standardized tests that allow the task force to formulate treatment goals and guidelines for each specific case. While the intervention addresses

problems generally faced by most people with hoarding disorder, the task force creates a personalized treatment that is tailored to each individual.

Justification

Because our intervention is community-based, there will not be a need to hire more mental health professionals, as the intervention utilizes the town's existing resources. People working in various sectors can come together and contribute towards serving each patient's needs. Since there are no specific qualifications to join, the task forces have increased accessibility to the broader community. In other words, it is all-pervasive. Given the right conditions, such as sufficient funding, time, and workforce, this method has been considered to be an extremely effective solution for the issue of hoarding among elderly people, and that is why we believe it could be effectively implemented in West Springfield.

One of the possible challenges that could arise regarding the financing of a community task force to address hoarding disorder would be the current lack of any state or federal legislation surrounding the creation of such task forces. As stated by Firsten-Kaufman and colleagues (2016), because of the lack of official policies regarding hoarding or task forces, there is a lack of specific grants tailored towards what we wish to accomplish. This would result in having to potentially apply for more generalized mental health grants, which are not specifically designated to support the aid of people with hoarding disorder. This could mean competition with many more applicants whose proposals may revolve around conditions that are typically more recognized.

The biggest non-monetary opportunity cost of this treatment method is time; such personalized treatment requires a lot of time to be effective. There is a high risk that there will not be enough volunteers with time to take on the task force on top of their other responsibilities. The members of the team are people who already work long hours and may not have the ability to take up more time for such a project. Individualized treatment plans require follow-ups, and members of the task force may not be able to find time for important follow-ups which can jeopardize the effectiveness of the treatment. If volunteers are unable to put in the necessary time, treatment will be lacking and the task force may not be able to work successfully. In regards to monetary costs, financing would be necessary for the cleaning and reorganization of a patient's home, whether this be in the form of hiring a cleaning company or through the purchase of supplies to be utilized by task force volunteers. Other possible costs could include transportation to and from the patient's home, potential home renovations, or the need to utilize a storage unit. These costs would all need to be taken into consideration when mapping out the necessary finances needed for this intervention.

The risks associated with this intervention could result in ineffective treatment of the patients. There is a financial risk that the money that is put forward to create the task force

and implement the program does not have the desired results. There is also a political risk that there will not be enough government support, and without support from the local politicians it would be difficult to garner community support and resources. Many of the departments are government run or funded organizations, and a lack of support would lead to failure for the project. Also, because the task force is composed of public departments, politicians might be less willing to implement the project if there is a risk of failure reflecting badly on them. A potential social risk could involve disagreement among different community organizations in regards to creating the task force. In order for the intervention to be successful, cooperation and volunteerism from several different disciplines, such as the fire department, police department, and Council on Aging, would be required. Some may not believe it to be in their best interest to participate due to lack of manpower and the likely possibility of having to combine finances to work towards a common goal. If there is not enough agreement between different community groups to collaborate together in the creation of the task force, it would be extremely difficult to implement.

The reduction of hoarding in the elderly population of West Springfield has positive implications beyond the individual patient. Thoroughly understanding the onset of hoarding disorder can help assess the disorder for younger generations; this will help to treat future cases of hoarding disorder in early stages before the disorder becomes severe enough to cause unhygienic and unsanitary living conditions. Moreover, helping the elderly cope with hoarding will alleviate other mental health disorders, such as depression, that can develop as a result of the effects of hoarding disorder. Including the community in the treatment of hoarding disorder may also help reduce stigma against mental illness and improve the overall understanding of mental health disorders in the community.

Conclusion

Implementing a community-based intervention for hoarding disorder in West Springfield can address the prevailing issue by using resources already present - members of the community. Community members who are willing to join the task force will require little to no funding and can lead to an increase in cohesiveness and morale of the West Springfield community. Treating patients with hoarding disorder and learning more about the onset of the disease will create a more hopeful outlook for younger generations who may suffer from hoarding disorder in the future. If this approach is adapted to the West Springfield community, there are next steps that can be taken beyond implementing task forces to improve and increase treatment options for those diagnosed with hoarding disorder. While task forces are being carried out, public health officials can work toward gathering more statistics about hoarding disorder in West Springfield to apply for grants and funding. Additionally, while these cases are being handled with task forces, more community members can be trained to address hoarding disorder at a clinical level, which can help to alleviate other mental disorders that result from severe cases of hoarding disorder. Addressing hoarding disorder at a clinical level will also provide a better understanding of

how cases become so severe, and preventive methods can be implemented to avoid any other resulting mental illnesses. By bringing the West Springfield population together in task forces, the issue of hoarding disorder can be addressed while also taking steps toward improving mental health throughout the community.

References

Brookline Hoarding Task Force. (2019). Retrieved from:
<https://www.brooklinema.gov/513/Hoarding-Task-Force>

Firsten-Kaufman, E., Broker, K., & Hildebrandt, C. (2016). What are effective interventions for hoarding? *Evidence Exchange Network for Mental Health and Addictions*.

Kim, H.J., Steketee, G., & Frost, R. O. (2001). Hoarding by Elderly People. *Health & Social Work*, 26(3).

Spinelli, J. (2018). Hoarding Disorder Interventions: 2018 Aging Adults and Evidence Based Practices [PowerPoint Slides]. Retrieved from
<https://dsamh.utah.gov/pdf/OA%20Conference/Utah%20Hoarding%20Disorder%20Interventions.pdf>.

U.S. Census Bureau (2010). West Springfield Town city, Massachusetts. Retrieved from <https://www.census.gov/quickfacts/westspringfieldtowncitymassachusetts>.

Turner, K., Steketee, G., & Nauth, L., (2010). Treating Elders With Compulsive Hoarding: A Pilot Program. *Cognitive & Behavioral Practices*, 17(4), 449-457.

Tolin, D. F., Frost, R. O., Steketee, G., & Muroff, J., (2015). Cognitive Behavioral Therapy For Hoarding Disorder: A Meta-Analysis. *Depression and Anxiety*, 32(3), 158–166.

Team 9: Peer-to-Peer and Adult-to-Youth Mentoring Programs

Problem Statement

The town of West Springfield lacks adequate resources to address and combat the opioid crisis that is affecting its residents. According to the Massachusetts Department of Public Health, between 2017 and 2018, there was an increase in opioid-related overdoses that physically occurred in West Springfield from 4 deaths to 12 deaths, as well as an increase in opioid-related deaths of the residents of West Springfield from 11 deaths to 14 deaths (Massachusetts Department of Public Health, 2019). The increase in opioid-related overdoses for the residents in West Springfield matches the increased rates throughout Massachusetts.

However, the increase in the number of people who physically overdosed in West Springfield marks a more drastic change compared to other towns in Massachusetts, which could imply that people have more and better access to opioids in West Springfield, or there are more places to use opioids without consequences in West Springfield. Local facilities and community centers report a lack in appropriate funding and knowledge to educate the citizens of West Springfield, while citizens report they are not aware of how to access information about support and rehabilitation for those afflicted by opioid addiction. This indicates a lack of knowledge surrounding opportunities and resources in general that can decrease use of opioids and death from opioids.

Review and Assessment of 3 Identified Strategies

First Strategy: After-School/Out-of-School Programming

After-school programs are widely accepted as an evidence-based drug prevention strategy that is effective at preventing the initiation and maintenance of drug use in teens. One risk factor for both the initiation and maintenance of risky drug use is the lack of adult supervision during after-school hours. After-school programs aim to prevent this by placing teens in the care of responsible adults who can engage youth in constructive activities to fill typically unsupervised time (Hanlon, Simon, O'Grady, Carswell & Callaman, 2009).

One study involving African American youths in Baltimore, Maryland, showed that those involved in regular after-school programs had little-to-no initiation or increased involvement in illicit drug use over the course of the study, which the authors suggest may result from this extra supervision (Hanlon et al., 2009). This type of programming has been proven effective in other parts of the US as well, including in San Francisco, where an organization called Seven Tepees hosts a learning center and college/career planning programs for youth. This organization provided 7-weeks of summer programming and 18 full-day

programs on holidays throughout 2019 to ensure teens could be supervised while continuing to be engaged in constructive activities (Seven Teepees, 2019). Seven Teepees (2019) reports 100% of those who utilized their services between 2017-2018 were low income, while 95% were Latino and/or African American. This is important to note because it shows that, through the increase in adult supervision, these after-school/ out-of-school programs can be effective in preventing the initiation and maintenance of drug use in teens across a variety of races, socioeconomic statuses, and locations in the US.

Second Strategy: Adult-to-Youth and Peer-to-Peer Mentor Programs

In the already established program of Big Brothers Big Sisters (BBBS), children ages 6-18 living in lower-income, single-parent households are partnered with older mentors, ages ranging from 20-34, who are well educated and volunteer their time to work with the younger students doing a variety of activities of their choosing. During this mentorship, which takes place for at least a year, the children are supported by their mentors in a friendly relationship, rather than that of a counselor or adult trying to promote behavior modifications (Arnold & Arnold, 2017).

In terms of how this style of programming could be effective for preventing opioid use, studies have shown that adult-to-youth mentoring programs, like BBBS, are helping to decrease youth drug and alcohol usage, as well as occurrences of violent behavior (Arnold & Arnold, 2017). According to Grossman and Tierney's study on the effectiveness of the BBBS mentoring (1998), children involved in the mentorship program were 46% less likely to start using illegal drugs. Furthermore, attitudes and behaviors also improved in the children who were a part of this program, for there were 32% fewer instances of someone hitting someone else in the time period after the mentorship, fewer days of school were missed during that year, and grade point averages slightly increased for the following school year (Grossman and Tierney, 1998).

Similarly, peer-to-peer mentoring and peer education programming have shown promise in decreasing alcohol and drug use in youth populations (Van Ryzin & Roseth, 2018). In a 2018 study using cooperative learning as a technique to impede the likelihood of deviant peer clustering (which correlates to higher drug and alcohol usage), Van Ryzin and Roseth found this technique to be effective. Creating a friend network using collaboration between peers on group-based activities in school connected to a decrease in overall reported drug (tobacco) and alcohol use, which also resulted in reduced individual usage (Van Ryzin & Roseth, 2018). The main mechanism used by this study was that of positive social interaction as a deterrent from deviant behavior (drug and alcohol use) for at risk children.

Similarly, in a recent study, the "Living the Example Social Media Substance Use Prevention Program" was evaluated (Evans et al., 2017). This drug prevention program has trained youth ambassadors to use social media and peer interaction to discuss, create, and share

messages about drug prevention. The program also engaged peers of the ambassadors through teaching them about the consequences of drug use and advocacy against drug use. This five session program was implemented with youth ages 13-16, and the results also indicated, much like the peer-to-peer mentoring program, that peer-to-peer mentoring and education on substance use is a promising intervention strategy with a reduction in intent to use drugs like marijuana after taking part in the Living the Example program (Evans et al., 2017).

In conclusion, peer-to-peer mentoring and peer education programs are showing efficacy in their ability to deter and even prevent future drug use within at risk adolescent groups. More importantly, this strategy shows that mentorship can provide a safe learning pathway about the effects of drug use and can offer an opportunity for older peers to teach younger students, fostering a community that cares about each other and is unified in their fight against drug abuse. In places like West Springfield where resources are often lacking, the use of peer mentoring programs can offer an easily accessible and useful resource to promote the health of the community starting at a young age for everyone involved in the program. Such mentorship programs are feasible to implement due to their large reliance on volunteers.

Third Strategy: Education about Opioid Use

In addition to after-school and mentorship programs, substance-abuse education implemented during adolescence is associated with enduring outcomes of decreased rates of substance use (Spoth, Trudeau, Redmond, & Shin, 2014). One example of the education programs that can have a lasting impact on adolescents into adulthood is the PROSPER program-delivery system, in which each community selects a family-focused and school-based program to implement in 6th and 7th grade (PROSPER, 2019). School-based programs delivered as part of the PROSPER programming such as Botvin LifeSkills Training (LST) provide curriculum that can be delivered over several years along with stand-alone modules not only informing adolescents about substance abuse but developing skills to be able to resist and refuse pressures to use/misuse drugs (PROSPER, 2019). Results from the 6.5-year follow-up of the randomized control trials examining PROSPER, show marked reductions in drug use ranging from 10-35% in the community of individuals who received the program (PROSPER, 2019). The National Institute on Drug Abuse (NIDA) also validates the positive impact that research-based prevention programs can have in preventing drug abuse and addiction in youth who are at an increased risk of drug abuse. Specifically, the selective programming cited on their website that target high-risk adolescents, could be advantageous to implement in the West Springfield community (NIDA, 2019).

Selection of Intervention Strategy: Adult-to-Youth and Peer-to-Peer Mentor Programs

We selected a joint program of both peer-to-peer and adult-to-youth mentoring for high school students as our intervention strategy to enhance the Town of West Springfield's mental health system, as both interventions collectively have their advantages that we feel will reach out to and impact the largest number of young people. We are specifically targeting middle schoolers and high schoolers for this intervention because we feel that their young minds can still be molded with positive influences and experiences as well as that they are the most vulnerable and at risk to succumb to drug use and, more specifically, opioid use because of the current epidemic that is striking West Springfield. According to Sharon Levy's research article, alongside the current general opioid crisis impacting the country, there is a rising opioid epidemic specifically among youths in this country. The article continues to say that adolescents and young adults are at a pivotal time in brain development when their reward systems are being formed and they can begin to distinguish between different levels of meaningful reward (Levy, 2019). Thereupon, youths are inclined to "pursue highly stimulating behaviors to garner a large neurological reward, a trait that is recognizable in the risk-taking behavior often associated with this stage of life," which is a driving force for youths to abuse opioids (Levy, 2019). Moreover, as discussed above in our Problem Statement, data from the Massachusetts Department of Public Health reveals that, between 2017 and 2018, the increase in the number of opioid overdoses in West Springfield residents is proportional to the increase in other Massachusetts town residents, but West Springfield experienced proportionally more deaths physically in their town, potentially implying that people, including youths, have more access to opioids in West Springfield than other Massachusetts towns (Massachusetts Department of Public Health, 2019). Therefore, in order to prevent this opioid crisis from further plaguing the particularly vulnerable adolescents and young adults in the Town of West Springfield, we are choosing to enact adult-to-youth and peer-to-peer mentoring programs to occupy adolescents' free time and engage them in more supervised, positive activities that can prevent them from initiating drug use at a young age.

An adult-to-youth mentoring program, along with a peer-to-peer mentoring program, in the Town of West Springfield would help lead to decreased opioid use in youths because they would be educated on the consequences of opioids and drugs in general as well as have a positive, influential adult role model to look up to for guidance and advice. In addition, West Springfield has difficulty utilizing their existing resources appropriately and efficiently, so this program would call upon influential adults in the town, such as community leaders, guidance counselors, school teachers, town governmental officials, sports coaches, etc. who could be role models to youth high schoolers. We believe that an adult-to-youth mentoring program would greatly benefit West Springfield because research shows that adult-to-youth mentoring programs, such as the Big Brother Big Sister program that was discussed

previously, have been proven to reduce violent actions and behavior as well as inhibit the use of illegal drug and alcohol use among youths (Arnold & Arnold, 2017). Therefore, if we incorporate a similar program and apply existing resources in West Springfield to an adult-peer mentoring program to educate youths on the consequences and dangers of opioids, then the entire community would be benefited: youths would learn to resist drugs, adults would learn new ways to benefit the community, and the community as a whole would become healthier and experience less opioid overdoses.

In addition to adult mentoring programs, peer-to-peer mentoring programs are another effective way to decrease drug use in at risk adolescents (Van Ryzin & Roseth, 2018). A peer-to-peer mentor program within West Springfield could mutually benefit both the older and younger groups, and help bond the high school and middle school communities. A successful peer-to-peer mentorship relies on the notion that the younger participants look up to their high school mentors, who are encouraged to provide a good example by engaging in productive after-school activities. A peer mentorship program that includes groups from a middle and high school within the same public school district will likely be the most successful after some time has gone by. Younger students that benefited from the program will be encouraged to become mentors themselves, and the cycle continues and provides a solid foundation that encompasses more positive activities over time, such as recreational sports, help with homework, and college tours for the older students. Including an incentive for the older group of students could also prove beneficial, such as a partial scholarship for the high school mentors that show successful contributions to the program. An incentive such as a scholarship encourages the high school mentors to consider attending college, which provides a good example and trajectory for the younger group they are mentoring. This program also allows the mentors to lead through example, and shows the younger group entertainment in a group setting that does not encompass drug use. This program also steers away from deliberate drug and alcohol education within a classroom setting, which often does not modify behavior or decrease drug and alcohol use.

Feasibility of the Intervention

The government and stakeholders in the Town of West Springfield would be able to feasibly implement adult-to-youth and peer-to-peer mentoring programs because the town has ample people who want to augment the community and reduce opioid use in youths; West Springfield could utilize resources that it already has. Based on our field trip to West Springfield, there were community leaders, government officials, public health advocates, etc., such as representatives from CARE, officials from the Public Health Department in West Springfield, employees from the mayor's office, and local adult volunteers who are invested in the welfare of the community and presumably would participate in mentoring programs to decrease opioid use in youths and better the Town of West Springfield as a whole. For the peer-to-peer mentoring program, West Springfield would again be using resources that the town already has, including older responsible students from organizations such as the

National Honor Society (NHS) at the local high school, who want to help the community. Other resources that would presumably be open to assisting in facilitating the peer-to-peer mentoring program could include recreational facilities and local teachers willing to coordinate logistics such as transportation, activities, and check-ins. Some challenges to implementing these mentoring programs could be rallying interest and enthusiasm for these programs from the youths and finding activities for the programs that youths would benefit from and be influenced by. Nonetheless, the Town of West Springfield would be able to implement our proposed adult-to-youth and peer-to-peer mentoring programs because they would be utilizing already established resources in order to invest in the health of the youths and the future of the community.

Cost-Benefit Assessment: Cost, Opportunity Costs, Risks, and Benefits

Overall, the cost to implement this program would not be burdensome to the Town of West Springfield as this program is run with the help of unpaid volunteers as well as through the reallocation of resources of organizations that already have adequate staff and funding. However, it would be unrealistic to expect that this program would have no cost associated with it, with some potential costs being training for mentors by professional substance abuse counselors, as well as any possible transportation, materials, and room reservation cost if there is not an adequate public space, such as the public library, that could host meetings. These costs could be covered by various federal and state grants that encourage mentoring partnerships. For example, a potential funding source of interest would be “MENTOR”, the national mentoring partnership managed by the U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention (MENTOR, 2019). As of 2016, over 90 million dollars in funds from the U.S. Department of Justice have been provided to at-risk youth programs and this sector would make a perfect potential investor for our intervention as they support our target population and already have a strong foundation in Massachusetts (Mendez, 2018).

With regard to our intervention proposal, possible community partnerships should also be considered, which can bring down potential implementation costs as well because these programs are already established. Mass Mentoring is affiliated with MENTOR and is based in Holyoke, MA, which is close to West Springfield and could make for a potential community partnership (Mendez, 2018). Mass Mentoring is known to provide programs that promote youth and young adult relationships, strengthening families, communities, and the youths themselves through empowerment. Following the guidelines of our intervention proposal, incorporating potential training and assistance from Mass Mentoring would be ideal and sustainable as this program already has strong roots in Western Massachusetts (Mendez, 2018). Further funding from the U.S. Department of Justice for our program would be beneficial and doable, especially with assistance from an already well-established youth mentoring program like Mass Mentoring.

This intervention does involve individuals donating their time and effort to make this program function properly, as the actual mentoring in both the adult-to-youth and peer-to-peer programs will be done by volunteers. This can be seen as an opportunity cost, as well as the time that it would take to properly train these mentors. However, with there being minimal risk to this program due to the low implementation costs and possibility for grant funding, this intervention could be an incredibly helpful reallocation and expansion of resources that are already present in the community. Both adult-to-youth and peer-to-peer mentoring programs have many benefits to them which have been previously discussed, such as the prevention of opioid and other substance use in the youth involved in these programs (Arnold & Arnold, 2017). However, another benefit to these programs is the increase in social and community support in a child's life overall which is a protective factor that can work to prevent other forms of psychopathology (Van Harmelen et. al, 2016). Thus, the implementation of this program could also potentially lead to better mental health overall of the children involved in this program.

Conclusion

Young people within West Springfield are at particular risk and vulnerable to substance use, specifically opioid use. The rise of opioid related deaths within West Springfield have led us to direct our interventions toward young people within West Springfield, as positive influences and exposures during middle school and high school years prove effective in reducing future substance abuse, therefore lowering this overall problem within West Springfield.

We have selected a joint adult-to-youth and peer-to-peer mentoring program in order to achieve this goal. The purpose of this program is to occupy West Springfield's middle schoolers/high schoolers' time in a more productive and positive way during one of the most formative parts of life. High schoolers mentoring middle schoolers provides the influence of positive role models, and benefits both groups of students participating in this productive and positive program. Recreational sports, professional preparation clubs, and college tours/information sessions are some of the many activities that can be included within this program. In terms of the peer-to-peer mentor program, younger students that positively benefited from the program are more likely to become mentors themselves, creating a positive cycle within the school system. Along these lines for the adult-to-peer program, adult role models such as teachers, coaches, community leaders, or school counselors can be utilized for the same outcome and to provide more guidance and support. From our evaluation of the literature, existing mentorship programs show drastic reductions in violent behaviors, along with illegal drug and alcohol use within youth populations.

This peer-to-peer and adult-to-peer mentoring program is a highly feasible intervention to implement within West Springfield. This program utilizes resources that West Springfield already has such as the CARE Coalition, and calls on the time of volunteers within both

aspects of the program, such as high school NHS members and adult teachers and coaches. In terms of the cost-benefit-analysis of implementing such a mentoring program, the highest opportunity cost is the time dedicated by volunteers. The Town of West Springfield already has a vested interest in decreasing opioid use, which can effectively begin with the town's youth population. Overall, the implementation of peer-to-peer and adult-to-peer mentoring programs is a mutually beneficial means of combating the opioid crisis within the Town of West Springfield.

References

Arnold, L., & Arnold, J. (2017). Social programs that work: Big brothers big sisters. Retrieved from <https://evidencebasedprograms.org/programs/big-brothers-big-sisters/>.

Coulter, E. (2019). Community based - Big brothers big sisters of America. Retrieved from <https://www.bbbs.org/community-based/>

Evans, W., Andrade, E., Goldmeier, S., Smith, M., Snider, J., & Girardo, G. (2017). The Living the Example Social Media Substance Use Prevention Program: A Pilot Evaluation. *JMIR mental health*, 4(2), e24. <http://dx.doi.org/10.2196/mental.7839>

Grossman, J. B., & Tierney, J. P. (1998). Does mentoring work?: An impact study of the big brothers big sisters program. *Evaluation Review*, 22(3), 403–426. <https://dx.doi.org/10.1177/0193841X9802200304>

Hanlon, T. E., Simon, B. D., O'Grady, K. E., Carswell, S. B., & Callaman, J. M. (2009). The Effectiveness of an After-school Program Targeting Urban African American Youth. *Education and urban society*, 42(1), 96–118. <https://dx.doi.org/10.1177/0013124509343144>

Levy, S. (2019). Youth and the opioid epidemic. Retrieved from <http://www.pediatrics.aappublications.org/content/143/2/e20182752>.

Massachusetts Department of Public Health. (2019). Number of Opioid- Related Overdose Deaths, All Intents by City/Town 2014- 2018. Massachusetts Department of Public Health. Retrieved by www.mass.gov/files/documents/2019/08/21/Opioid-related-Overdose-Deaths-by-City-Town-August-2019.pdf.

Mendez, L. (2018). Mass mentoring partnership. Retrieved from: <http://www.massmentors.org/>

MENTOR. (2019). MENTOR: Public funding for mentoring. Retrieved from <https://www.mentoring.org/public-funding-for-mentoring/>

National Institute on Drug Abuse. (2019) "Preventing Drug Use among Children and Adolescents (InBrief). NIDA. Retrieved from:
<https://www.drugabuse.gov/piblications/preventing-drug-abuse-among-children>

"PROSPER- Evidence Based Social Programs That Work." (2019). Retrieved from
<https://evidencebasedprograms.org/programs/prosper/#-ftn2>

Seven Teepees. (2019). Programs and Services. Retrieved from:
<https://www.seventeepes.org/ourwork>

Spoth, R., Trudeau, L., Redmond, C., Shin, C. (2014). Replication RCT of early universal prevention effects on young adult substance misuse. *Journal of Consulting and Clinical Psychology*, 82(6), 949-963. <https://dx.doi.org/10.1037/a0036840>

Van Harmelen, A. L., Gibson, J. L., St Clair, M. C., Owens, M., Brodbeck, J., Dunn, V., & Goodyer, I. M. (2016). Friendships and family support reduce subsequent depressive symptoms in at-risk adolescents. *PloS one*, 11(5), e0153715. <https://dx.doi.org/10.1371/journal.pone.0153715>

Van Ryzin, M. J., & Roeth, C. J. (2018). Peer influence processes as mediators of effects of a middle school substance use prevention program. *Addictive behaviors*, 85, 180-185. <https://dx.doi.org/10.1016/j.addbeh.2018.06.016>

Team 10: Cultural Competency in West Springfield: Improving Access to Mental Health Services Using Peer Social Workers

Problem Statement

While West Springfield is struggling in many areas, our group has identified a disconnect between community members, providers, and community stakeholders as a prominent issue. This disconnect encompasses culture, language, and availability of providers. Based on previous research and our conversations with community stakeholders, we have learned that there are 20+ languages spoken, approximately 15% of the population is foreign-born, and the city has one of the largest immigrant and refugee populations in Massachusetts (“U.S. Census Bureau QuickFacts,” 2018). The stakeholders of West Springfield have indeed acknowledged the difficulty in meeting the diverse needs of their community, but our group believes that an intervention is necessary to properly address the issue.

Considering the diversity of West Springfield, we believe that an increase in practitioners who have a broad awareness of varying community struggles will dramatically improve access to resources, in spite of existing language barriers. By expanding access to culturally sensitive mental health services, we hope to bridge the gap between practitioners and community members, ensuring that the unique needs of each resident of West Springfield are clearly communicated and addressed.

Existing Strategies

Cultural Competency Training for Providers

The first strategy involves using Campinha-Bacote’s model of cultural competence to inform health care delivery. The model consists of five interdependent constructs (cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire) and has been utilized to develop several cultural assessment tools for use in clinical settings (Campinha-Bacote, 2002). The assessment tools, including models like ETHNIC and BATHE which provide a framework for how to approach patient encounters, have been recommended for the collection of culturally relevant data by case managers (Campinha-Bacote & Munoz, 2001).

A potential weakness of this strategy is that West Springfield likely lacks case managers, meaning that significant time and resources would need to be expended to recruit and compensate case managers in order to carry out the intervention exactly as recommended. Therefore, in West Springfield, it may be most appropriate to use the model of cultural competence as a foundation on which to build an intervention for existing providers, instead of newly hired case managers.

The major strengths of this strategy are its low cost and feasibility. We suggest that periodic training sessions taught by the leaders of each healthcare facility in the city, coupled with posters hung in the offices of providers that define the acronyms of each assessment tool, are all that is needed to allow the intervention to be effectively implemented. By targeting each construct of the model and incorporating the cultural assessment tools, the intervention would aim to improve knowledge of the health-related beliefs that different cultural groups hold, to engage providers in learning about different cultures in the community, and to serve the linguistic needs of each patient.

Remote Translation Services

With the rise of telehealth, providing health services in spite of language barriers is easier than ever before. An existing strategy we looked into for our intervention proposal is the use of various communication technologies for remote translation services. A coalition of nine California public hospitals and their associated facilities (e.g. community clinics, psychiatric facilities, skilled nursing facilities, public health departments, etc.) tested various communication technologies to address the high amount of requests for interpretation services in their facilities (Masland, Lou & Snowden, 2010). This involved the use of call center technology, where the request for translation is directed to a pool of at-ready, full-time interpreters and bilingual staff who are available 24 hours a day, 7 days a week, as well as videoconferencing (Masland, Lou, & Snowden, 2010).

Both methods were found to be successful forms of remote translation services, however, each method has its respective advantages and disadvantages (Masland, Lou & Snowden, 2010). The use of call center technology was found to be effective but sometimes compromised quality with the loss of a visual component. Additionally, the lack of a physical third party in the room helped patients feel more comfortable communicating personal or sensitive information with their provider. Videoconferencing was found to be the preferred method by patients, providers, and interpreters, due to its close resemblance to face-to-face interaction, and it was well-received in mental health settings. Comprehensively, it was found that although interpretation services increase costs by approximately \$4 per patient encounter, the services lower overall healthcare costs by reducing unnecessary tests, shortening visit times, and increasing treatment and follow-up instruction compliance (Masland, Lou & Snowden, 2010).

In terms of feasibility, we considered this as a strong potential intervention strategy because although it can take a bit of effort to set up an efficient remote translation service system, patients generally seem to be satisfied with the quality of service (Masland, Lou & Snowden, 2010). Additionally, given that there is a lack of mental health providers in West Springfield, this cost-effective strategy would be an appropriate intermittent solution that would allow the existing providers to serve the community in spite of existing language barriers.

However, the major weakness of this strategy is that it would be a short-term solution to a deep-rooted problem. Despite the strategy's potential success and cost-effectiveness, it will cost more long term than if we focused on an intervention that specifically addressed the root of the problem, which is the lack of culturally competent healthcare providers available in West Springfield.

Peer Social Workers (PSW)

Peer social workers (PSWs) have become important towards treatment of mental illness, especially with the rise of task-shifting. According to a growing body of literature, peer social workers have many benefits for communities plagued with mental health issues. Studies indicate that PSWs can achieve outcomes equal to or better than those achieved by non-peer mental health professionals and can be effective in reducing hospital admissions, inpatient days and engaging severely ill patients (Grant, Simmons, & Davey, 2018). PSWs can be used to address a multitude of situations – current literature has examined the effectiveness of PSWs regarding mental health, cardiovascular health, Alzheimer's disease, among many other illnesses.

Implementing PSWs could help combat mental health stigma and can provide an outlet to those who are unable to seek medical treatment from overburdened medical staff (Grant, Simmons, & Davey, 2018). Additionally, because West Springfield is a relatively small community, we predict that community members share similar struggles, meaning that a PSW who has experienced an issue like addiction would be able to connect with several people in the community. In fact, one resident that we talked to in West Springfield informed us that she wished there was support for families of opioid addicts. Kelly et al. (2017) highlighted a family-oriented peer-support group that helped families understand their role with an opioid-addicted individual(s), dispel myths of substance abuse, and provide information about actions to take if an overdose occurs.

A potential weakness of this strategy lies in the difficulty of recruiting individuals to serve as peer social workers. In order to work as PSWs, individuals have to be willing to discuss their own experiences and provide support to community members (Grant, Simmons, & Davey, 2018). A possible solution could be to implement training programs for 1) young adults post-graduation and 2) retired elders to become peer support workers. These populations would be great targets because these groups are struggling in the community and this provides an opportunity for them to engage with and give back to West Springfield, as they have diverse life experiences.

Peer Social Workers to Improve Cultural Competence

In order to overcome the cultural differences between the community members seeking help and the resources that are available to them, we recommend that the community combine

the cultural competency training with the peer social worker program. Through this cost-effective combination of previously successful methods, a community-wide support system will be built that will benefit the diverse individuals within West Springfield.

Research has shown that cultural competence training of medical providers has improved patient satisfaction and led to better outcomes (Govere L & Govere EM, 2016). Therefore, for our intervention, we suggest providing cultural competency training to the people from the community who will be serving as peer social workers, as well as to existing providers in West Springfield. The five constructs of Campinha-Bacote's model of cultural competence, as well as the assessment tools, will be emphasized.

For the peer social worker component of our intervention, a person currently needing assistance would be paired with a community member who would serve as a mentor that is able to provide information about useful resources as well as share personal experiences dealing with and overcoming their own mental health problems. Although this method will not replace other professional help, its use could significantly reduce the demand for professionals in West Springfield by providing supplemental opportunities for individuals to receive support and talk through their concerns.

Our proposed intervention is comparable to existing successful sponsor programs, like 12 step programs of addiction recovery. Individuals who had consistent attendance in AA and NA meetings were able to remain sober with the support of the community, specifically their sponsors (Kaskutas et al., 2009), which serve a similar role as PSWs; these findings therefore suggest that PSWs will similarly aid West Springfield individuals in overcoming mental health struggles. Overall, the inclusion of the cultural competence training would serve as a foundation of knowledge for peer mentors, teaching them how to approach various scenarios as well as bridging the gap between cultural differences.

Justification

Our proposed intervention of cultural competency training for peer social workers could be feasibly implemented by West Springfield. Most importantly, the people that would be involved in our intervention already live and work in the community. This is favorable because not only are we avoiding bringing people in who may impose their ideas without being familiar with the city's unique challenges but also because our intervention will strengthen the sense of community within the city.

However, our intervention does present some challenges. First, before cultural competency trainings can be held, we must select individuals from the community to lead the trainings and ensure that they have been supplied with the adequate knowledge to do so. Next, there may be costs associated with renting a venue to host the training and resources such as food may need to be purchased to incentivize attendance. Possible challenges for the peer

social worker component includes recruiting individuals to serve as peer social workers, which would involve a screening or interviewing process; furthermore, leaders in the community would have to be selected to lead this process. In order to ensure that the program is running smoothly, ongoing feedback would be collected from service users and providers, which would require time and organization from community members. While the program would consist of only volunteers, money would still need to be spent on renting out venues to host sessions with PSWs in a format similar to AA programs, as well as on producing or purchasing educational materials like pamphlets to hand out at the training and posters outlining the cultural assessment tools to be hung in an accessible place for PSWs.

Overall, although our intervention presents logistical challenges, we are simply building upon existing infrastructure. These logistical challenges can be overcome with thoughtful organization and coordination among various community members, a process which does require time and effort but does not necessitate outside funding or resources.

In regards to opportunity cost, if West Springfield chooses to pursue this intervention strategy, they will have less time, money, and other resources to dedicate towards other interventions suggested by other groups. Since this intervention also focuses on utilizing existing resources within the community, West Springfield may potentially be deprived of beneficial information or knowledge possessed by outside resources. Additionally, by focusing on cultural barrier issues, this intervention also does not entirely address the language barrier issue. Cultural competency training can foster better patient-provider connections in terms of care; however, there still exists a communication barrier.

Since the program will be led by volunteer peer social workers from the community, this approach will cost significantly less than gathering and paying professional social workers. As previously discussed, the main costs that will come from this approach will be related to volunteer recruitment, the cultural competency trainings, and periodic check-ins with the peer social workers. Although any intervention will cost some amount of money, our intervention is relatively inexpensive and, in the long run, it will reduce costs associated with emergency health services and negative health outcomes due to stress (Young et al., 2005).

Our intervention will bring many benefits to the community. We predict that fostering community support will boost morale in the community and lead to overall better health outcomes. In addition, by pairing the peer social workers with community members, social networks may develop between people who would not have become connected had it not been for our intervention. A growing body of research has shown the significance of social networks as a determinant of health: “people are interconnected, and so their health is interconnected” (Smith & Christakis, 2018). Another intangible benefit is that if the program is successful, it may spread to surrounding communities.

However, because our proposed intervention is a community-based program, people within the community must participate, as leaders and learners in the cultural competency trainings, as peer social workers, and as clients of the peer social workers, in order for it to be successful. If community members are not interested or have simply not heard about the program, it won't work. This social risk can be minimized by taking steps to ensure community involvement before implementation of the program. A first step could be to gauge interest within the community and then to develop ways to increase community engagement.

In conclusion, our proposed intervention combines cultural competency training with peer social workers, which are existing interventions that have been successful independently. With its low cost and high amount of anticipated benefits, we expect that this intervention's emphasis on cultural competency will improve the care provided by existing providers in West Springfield, as well as link struggling individuals to peer social workers who are experienced in the issues being faced and who have been trained to appropriately address the cultural needs of individuals. Overall, this intervention will help bridge the current disconnect between providers and the diverse individuals of West Springfield and will hopefully lessen the burden of mental illness in the community.

References

Campinha-Bacote, J. (2002). The Process of Cultural Competence in the Delivery of Healthcare Services: A Model of Care. *Journal of Transcultural Nursing*, 13(3), 181–184. <https://doi.org/10.1177/10459602013003003>

Campinha-Bacote, J. & Munoz, C. (2001). A guiding framework for delivering culturally competent services in case management. *The Case Manager*, 12(2), 48–52. <https://doi.org/10.1067/mcm.2001.114902>

Grant K.L., Simmons M.B. & Davey C.G. (2018). Three Nontraditional Approaches to Improving the Capacity, Accessibility, and quality of mental health services: an overview. *Psychiatric Services* 69:5.

Govere, L. & Govere, E.M. (2016). How Effective is Cultural Competence Training of Healthcare Providers on Improving Patient Satisfaction of Minority Groups? A systematic review of Literature. *Worldviews on Evidence-based nursing* 13:6, 402-410.

Kaskutas L.A., Subbaraman M.S., Witbrodt J. & Zemore S.E. (2009). Effectiveness of Making Alcoholic Anonymous Easier: A group format 12-step facilitation approach. *Journal of Substance Abuse Treatment*. 37 (3): 228-239

Kelly J.F., Fallah-Sohy N., Cristello J. & Bergman B. (2017). Coping with the enduring unpredictability of opioid addiction: An investigation of a novel family-focused peer-support organization. *Journal of Substance Abuse Treatment* 77: 193-200.

Masland, M.C., Lou, C. & Snowden, L. (2010). Use of communication technologies to cost effectively increase the availability of interpretation services in healthcare settings. *Telemedicine Journal and E-health : The Official Journal of the American Telemedicine Association*, 16(6), 739–745.

Smith, K. & Christakis, N. (2008). Social Networks and Health. *Annual Review of Sociology*.

Thomas K.D. & Schofield S. (2019). Teaching the generalisable skills of cultural competency: A new educational intervention in New Zealand. *The Asia Pacific Scholar*. <http://theasiapacificscholar.org/teaching-the-generalisable-skills-of-cultural-competency-a-new-educational-intervention-in-new-zealand/>

U.S. Census Bureau QuickFacts: West Springfield Town city, Massachusetts. (2018, July 18). Retrieved from <https://www.census.gov/quickfacts/westspringfieldtowncitymassachusetts>

Young, A. S., Chinman, M. J., Cradock-O’Leary, J. A., Sullivan, G., Murata, D., Mintz, J. & Koegel, P. (2005). Characteristics of Individuals With Severe Mental Illness Who Use Emergency Services. *Community Mental Health Journal*, 41(2), 159–168. doi: 10.1007/s10597-005-2650-0