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Policy Options for Recruiting and Retaining Rural Primary Care Physicians in Maine

Casey Lancaster
University of Southern Maine

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Policy Options for Recruiting and Retaining Rural Primary Care Physicians in Maine

CAPSTONE: MASTER OF PUBLIC HEALTH PROGRAM
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University of Southern Maine
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Executive Summary

Maine faces a challenge providing primary care services to over half of its residents, as they live in rural areas – even though Maine has enough primary care physicians practicing in the state to service the needs of the population. Maine has a primary care physician distribution problem. Androscoggin, Oxford, Sagadahoc, Somerset, Waldo, Washington, and York Counties, all fall well below the national average of primary care physicians per 100,000 residents. Maine has no true financial incentive program to help rural area’s recruit and retain primary care physicians, though Maine does have two programs that attempt to get primary care physicians to rural areas, The Maine Health Professions Loan Program, and the Doctor’s for Maine Future Scholarship.

While Maine does not offer a financial incentive program like many other States, hospital systems in Maine have, and continue, to provide loan forgiveness programs to primary care physicians who are willing to practice in their rural hospitals. These programs are very expensive (upwards of $100,000 over the life of a primary care physicians initial contract), and not all rural hospitals have the financial resources to offer a competitive loan forgiveness program. This is where the implementation of a financial incentive program in Maine comes in – to help combat the growing primary care physician disparity throughout the state’s rural areas.

State run financial incentive programs are broken up into three different variations, state loan repayment programs, community-state matching programs, and state tax credit programs. Each of these programs have shown promise when used in
other rural states. The Arkansas Community Match Rural Physician Recruitment Program has seen 76% of all physicians accepted into the program stay in the rural community that they were placed in. The Alabama Physician Incentive State Tax Credit Program has seen an increase in 7% of primary care physicians practicing in rural Alabama since the program’s inception, and the state recently increased funding into the program. The Montana Rural Physicians Incentive Program (a state funded loan repayment program), has seen 77% of all physicians who have been recruited in the programs continue to work in the State, with 69% of those individuals still working in rural and underserved areas.

When evaluating these financial incentive programs based on four criteria; cost, effectiveness, capacity, and feasibility, it became clear that Maine’s needs do not fit directly with any of these programs. Rural communities do not have the infrastructure to successfully administer community-state matching program. State funded loan repayment programs are very expensive, and the state recruitment removed the loan repayment aspect of the Maine Health Professions Loan Repayment Program as of 2011. While state tax credit programs are the most feasible option, it’s also the path of least resistance, and will not make Maine a more competitive destination for rural primary care providers.

Based on the analysis conducted in this paper, five recommendations/policy options were made, to increase the number of primary care physicians practicing in the states rural and underserved areas. Reverting the changes made to the Maine Health Professions Loan Program would provide Maine with financial incentive package (even though the changes may need to be adapted to compete with other states). Expanding
the Opportunity Maine Tax Credit Program to physicians who practice in rural areas, would increase the overall financial incentive package that Maine could offer to attract physicians. The state should not consider a community-state matching programs, yet could consider working with rural hospital networks to set up residency programs that directly train physician to practice in Maine’s rural and underserved areas. The state needs to continue targeting medical students who have rural backgrounds and strong ties to the state – the Maine Health Professions Loan Program, and the Doctor for Maine Future Scholarship already list this as a core criteria of each of the programs. And lastly, with 40% of physicians seeking financial incentive programs post residency to assist them in paying their school debt, it’s imperative that Maine provide a competitive financial incentive program for primary care physicians.
**INTRODUCTION:** Maine faces a challenge in providing primary care to over half of its population. This problem stems from two characteristics of the Maine healthcare system: physicians tend to locate in and around the urban hubs, and there are few incentives to encourage physicians to practice in the state’s rural and underserved areas. While Maine has an overabundance of physicians providing primary care services in the state’s urban centers, the state’s rural areas struggle to provide the same quality of services, due to a lack of primary care providers (primarily physicians).

This analysis examines state policy options to increase the supply of rural primary care physicians in Maine. The analysis focuses on financial incentive programs, which have historically been most effective for encouraging primary care physicians to begin practicing in a state’s rural and underserved area (whether it be opening a new practice, or more commonly, starting work for a rural healthcare system). Understanding the current state policy, while also comparing potential state financial incentive options with existing policy already being used in other states, is critical in understanding Maine’s options for recruiting and retaining rural primary care physicians.

**BACKGROUND:**

The Problem: Over 60% of Maine’s population lives in rural areas. In contrast 80% of the United States population lives in urban areas.¹ Maine currently has an average of 112.2 primary care physicians per 100,000 residents, which is only second in the nation to Vermont. For comparison, the national average of primary care physicians is 90.5

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primary care physicians per 100,000 residents.\textsuperscript{2} Maine does not have a primary care shortage (Maine only needs a 9\% increase in primary care physicians by the year 2030 to maintain the status quo). Rather, the state’s physician supply problem is with physician distribution.\textsuperscript{3}

Currently, Androscoggin, Oxford, Sagadahoc, Somerset, Waldo, Washington, and York Counties fall well below the national average of primary care physicians per 100,000 residents (Figure 1). Cumberland County, where over a quarter of the Maine’s population lives around the greater Portland area, has roughly 156 physicians per 100 residents – this is 100 more physician per 100,000 residents than the Somerset county (Somerset county has the lowest physicians per 100,000 residents out of any county in the State).\textsuperscript{4}

Androscoggin, Oxford, Sagadahoc, Somerset, Waldo, Washington and York counties

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Figure1.png}
\caption{Primary Care Physicians Per 100,000 Residents By County}
\end{figure}

have consistently fallen below the national average of primary care physicians per 100,000 residents. This serious shortage of primary care physicians in rural and underserved areas will be exacerbated by accelerating retirement of older physicians. The oldest communities in Maine are also the most rural – these rural communities have an average physician age of 55 or older (roughly one and every five rural Maine physicians is reaching the age of retirement).\(^5\)

**The History of Recruitment and Retention Policies in Maine:**

The State of Maine has two financial incentive programs, The Maine Health Professions Loan Program, and The Doctors for Maine Future Scholarship Fund.

<table>
<thead>
<tr>
<th>Maine Health Professions Loan Program</th>
<th>Doctors for Maine Future Scholarship Program</th>
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<tbody>
<tr>
<td>1.) Provides 0% interest loans to medical students who are accepted into the program. The student must work in a HPSA after graduation to receive this rate (up to $25,000 per year in loans).</td>
<td>1.) Provides up to 50% of a medical student’s educational costs or up to $25,000 a year.</td>
</tr>
<tr>
<td>2.) The program previously provided $12,500 of loan forgiveness – this stopped in 2011.</td>
<td>2.) Run though University of New England, and the Maine Medical Center/Tuffs University School of Medicine, Medical School Program.</td>
</tr>
<tr>
<td>3.) Uses federal NHSC funds, and state matched funds to provide the program</td>
<td>3.) Uses state funds to provide the program</td>
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The Maine Health Professions Loan Program: Passed in 1983 this loan program uses state funds to match federal National Health Service Corps (NHSC) funds, to provide loans to medical students who are training to become primary care physicians. The Maine Health Professions Loan Program was previously loan repayment program which provided up to $12,500 in loan forgiveness per year, for each year the loan was

received by the physician (a maximum loan under this program is $25,000 per year).\textsuperscript{6} The loan forgiveness aspect of this program was removed after the Maine State Legislature and Governor Paul Lepage reduced the program funding in 2011. In return for providing a 0% interest loan, the state expects medical school graduates to practice in a federally designated Health Professional Shortage Area (HPSA) – of which there is at least one location in each of the state’s 16 counties.\textsuperscript{7} This loan does not bind the physician to work in the State of Maine – any physician who accepts the loan, and does not meet the conditions is required to pay back the loans at an 8% interest rate. The current interest rate of a Grad-PLUS loan, the most common loan given to medical students is 6.84\%.\textsuperscript{8} Currently only Maine Residents can apply for this program.

**The Doctors for Maine Future Scholarship Program:** Passed in 2009, this program provides current medical school attendees up to 50% of their educational costs, or up to $25,000 per year. The Maine Medical Center/Tufts University School of Medicine, Medical School Program, and the University of New England, College of Osteopathic Medicine are the only two schools who participate in the scholarship program. Upon graduation, there is no requirement to work in the State of Maine after the completion of the program. This program, like the Maine Health Professions Loan


\textsuperscript{7} A Health Professional Shortage Areas (HPSA’s) are designated by the Health Resource and Services Administration (HRSA), due to a shortage of primary care, dental care, and mental care providers based on population.

Program targets medical school students with strong Maine roots, who have the highest chance of returning to the state to practice.\textsuperscript{9}

Maine has no active financial incentive programs that provide assistance to individuals who have completed medical school and are entering their residency program, or post residency employment. In 2007, Maine’s 123\textsuperscript{rd} Legislature’s Final Report on the Commission to Study Primary Care Medical Practices made two key recommendations on financial incentives for primary care providers who practice in the state – expand the Opportunity Maine Tax Credit Program, and invest and sustain the Finance Authority of Maine (FAME).\textsuperscript{10} Expanding the Opportunity Maine Tax Credit Program would have allowed medical school graduates to claim a state tax credit to help them pay their student loans. Investing and sustaining FAME by developing a loan repayment program for medical students, much like the current dental loan repayment program, would have helped make medical school more affordable to current Maine residents. Despite the Commission’s recommendations, neither of these two recommendations has passed the Maine Legislature (Additional information on the Opportunity Maine Tax Credit Program can be found in Appendix: 1).

**Other Recruitment and Retention Policy Options:**

**Community-State Matching Program:** A community-state matching program provides a rural community the opportunity to receive additional state dollars to incent a primary care physician to practice in its area (or begin practicing at an already established clinic


or hospital system in the area). While the community must match these state funds at a 1-to-1 ratio though their current revenue streams – the program provides a larger financial incentive to encourage a primary care physician to practice in its community than the community could manage on its own. Community matching programs have been used by numerous states around the United States, including a program in Arkansas – The Arkansas Community Match Rural Physician Recruitment Program (a similar program is used in the State of North Dakota, known as The State Community Matching Physician Loan Repayment Program).

Currently, the Arkansas Community Match Rural Physician Recruitment Program, which was passed into law in 2007 by the Arkansas Legislature, has been a success in getting primary care physicians into the state’s rural areas and underserved areas, and then getting the physicians to continue practicing in these areas after their contracts are up. This program provides up to $80,000 in loan reimbursement to a primary care physician for two years of service in a rural and underserved community – 50% of the funding comes from the state, and 50% comes from the community that decides to participate.\(^\text{11}\) While there has been no formal evaluation of Arkansas Community Match Rural Physician Recruitment Program, the Arkansas Health Workforce Strategic Plan has calculated that 76% of physicians who are accepted into program have stayed in the original community that provided the community match funding. Additionally, 78% of the program physicians have continued to work in a rural setting in Arkansas, even though that rural setting may not be the original community that

provided the community match funding. Overall, 95% of physicians which entered the program have continued to practice in the State of Arkansas after they completed their contracts with the community that originally matched the state’s dollars.\textsuperscript{12}

**State Tax Credit Programs:** The programs provide a tax credit to a physician who is willing to practice in a rural and underserved area, rather than direct loan reimbursement to financially incent a primary care provider to practice in a rural and underserved area. By providing a tax credit, the state is reducing the financial burden on the physician, which in turn could help the physician pay off their loans – but unlike other loan reimbursement and financial incentives, the physician can use this program regardless of whether they have loans to repay. Numerous states provide a state tax credit program – and even Maine looked to provide a state tax credit program in 2007 by expanding the Opportunity Maine Tax Credit Program.\textsuperscript{13} Alabama has had this program since 1995 in the form of its Physician Incentive State Tax Credit Program.

Alabama’s Physician Incentive State Tax Credit Program provides a physician with a $5,000 tax credit to practice in one of the state’s designated underserved area. This tax credit is renewable for up to five years, and the credit does not need to be used on the physician’s student loans.\textsuperscript{14} The program additionally does not require the physician to be in financial debt to be a part of the program, as this program provides the credit as a reward for practicing in a rural and underserved area. Additionally

\begin{flushleft}


\textsuperscript{14} State Workforce Incentive Programs." National Association of Community Health Centers in Conjunction with State Primary Care Associations and State Primary Care Offices (June 2009): Web
\end{flushleft}
Alabama’s Tax Credit Program is open to any physician who is able to obtain state licensure – thus able to be used by individuals who are not currently practicing in Alabama, yet are seeking to move to the area for a financial incentive. Since the program’s inception in 1995, Alabama has seen a rise in the number of primary care physicians practicing in their rural areas, though no formal evaluation has been conducted by the state to ensure that the program is the sole reason for the increase (Alabama has seen a 7% increase in primary care physicians practicing in rural areas since 1995). Alabama has recently passed legislation to increase the funding for the program to increase the program’s impact. The program will increase its yearly tax credit to $8,000 for up to eight years, for physicians who practice in the state’s rural and underserved areas. Similar programs continue to run in North Dakota, Georgia, New Mexico, and Oregon.

State Funded Loan Repayment Programs: The program provides a primary care physician, post-graduation from medical school and residency, with loan forgiveness, or repayment, for practicing in a states underserved or rural community. As these programs receive no federal dollars, states have the ability to become very creative with these plans, and are able to design these plans to directly suit the needs of their currently physician problem (while being able to place physicians into area’s with the most need). Currently there are many states which provide funded loan repayment programs (Delaware, Michigan, Nevada, and New Hampshire), yet the rural state of Montana, and its Montana Rural Physician Incentive Program (MRPIP), provides an

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example of how a rural state provides financial incentives to newly recruited primary care physicians for their services.

Passed by the Montana Legislature in 1991, The Montana Rural Physician Incentive Program (MRPIP) provides a primary care physician with $100,000 in loan repayment, for five years of service in an underserved area in Montana. The loan repayment amount was increased from $45,000 to $100,000 in 2007 as an attempt to increase enrollment in the program, because neighboring states were offering higher loan repayment packages. The state was able to make such a large increase in the funds by adding a surcharge onto the Montana University System, which makes this program budget neutral. As the funding comes directly from the State in this program, Montana is able to place physicians in areas where there is a high level of need. Montana primarily recruits for this program out of the Montana University System, yet also allows individuals who are able to receive Montana licensure, and are recent graduate of an accredited medical school to apply. Since the program’s inception in 1991, 77% of all physicians who have been recruited into the program have continued to work in the State of Montana, with 69% of those individuals still working in rural and underserved areas.\textsuperscript{16}

**Hospital Based Practice Recruitment Programs:**

Primary care is changing in Maine. Primary care practices run by independent doctors are disappearing, and have been for a long time. As of 2014, between 80%-90% of all

primary care physicians in Maine are employed by a hospital system, a federally qualified health center (FQHC), or a rural health clinic (RHC), with roughly 10-20% of physicians still practicing in their own independent practices. This is due to a number of factors, but primarily insurance reimbursement rates and the increasing overhead to run a successful practice. An independent physician practice normally is reimbursed 20%-30% less by Medicare than a physician practice that is owned and operated by a hospital-based system. Additionally, independent physicians in rural areas tend to have large MaineCare panels (Maine’s Medicaid program). By joining a larger health system a physician is able to continue to serve his community, while not having to worry about their patient panel (a patient panel is a number of patients who are cared for by the same doctor).17

With Maine’s primary care system changing from independent practices in local communities to a hospital network of primary care physicians, this puts a large burden on healthcare systems to recruit and retain primary care physicians. With the current shortage of primary care doctors around the United States (a current shortfall of around 12,000 to 31,000 primary care physicians), and a current over saturation of primary care doctors practicing in urban areas – rural healthcare facilities around the State of Maine must compete with other rural areas to attract high quality physicians to provide high quality primary care to residents in their networks.18


There are rural healthcare facilities in Maine, such as The Aroostook Medical Center (TAMC), that provide loan forgiveness as a part of their overarching benefits package to primary care physicians who are willing to practice primary care in the area right out of their residency programs (TAMC’s program is a six year benefits package that provides consistent loan forgiveness over the course of the physicians contract). Providing a financial incentive to primary care physicians who are willing to practice in the United States rural and underserved areas for healthcare systems is becoming increasingly popular as a recruitment technique – as the talent market for primary care physicians becomes more competitive. Health system loan forgiveness programs for physicians can be very expensive, however, some rural healthcare facilities are unable to provide the benefit due to budget restrictions (normally these facilities do offer tuition reimbursement for their current employees, rather than providing loan forgiveness to potential recruits).

While healthcare systems play a major role in the recruitment and retention of primary care physicians in Maine (and around the United States) – the state still has an interest to ensure that all of its communities are receiving quality primary care physicians. Like other rural states, Maine has a vested interest in the quality of primary care services its residents receive. Providing a financial incentive for physicians to locate their practices in a rural and underserved community (either for a healthcare system, FQHC, RHC, or independent practice), will increase that community’s ability to secure a primary care physician, especially in areas where the healthcare system cannot financially afford to provide a competitive benefits package.
Federal Programs:

<table>
<thead>
<tr>
<th>J1 Visa Program</th>
<th>National Health Service Corps (NHSC)</th>
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</thead>
<tbody>
<tr>
<td>1.) Run by the Department of State.</td>
<td>1.) Run out of the Department of Health and Human Services</td>
</tr>
<tr>
<td>2.) Program allows IMG’s to stay in the United States as long as they agree to practice in a HPSA for three years.</td>
<td>2.) Runs the State Loan Repayment Program (SLRP).</td>
</tr>
<tr>
<td>3.) Maine currently uses all 30 applications allowed, and cannot expand on the program.</td>
<td>3.) Maine currently receives $175,000 in SLRP funds, and uses those funds on the Maine Health Professions Loan Program</td>
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Maine has access to two federal programs that provide benefits to physicians who are willing to practice in rural and underserved areas – The J-1 Visa Program, and the National Health Service Corps (NHSC), State Loan Repayment Program (SLRP). While these programs serve an important purpose, Maine cannot expand these programs to better suit the need of the state, as the state would need the federal government to act first. While these programs are not a focal point of this analysis, it is important to understand the programs made available to Maine though the federal government.

J1 Visa Program: This program (also known as the Conrad 30 Waiver Program), is run out of the US Department of State. The program allows international medical graduates (IMGs) to remain in the United States after the completion of their degree program, as long as the IMG agrees to practice in a HPSA. The J-1 Visa Program is used as a pipeline to get primary care physicians (and in some cases, specialists), into rural and underserved areas in the United States, with the hope that these physicians will settle in the area in which they are practicing, and continue to practice in the area after their three year contract is up. Maine currently uses the maximum number of 30 application requests each year (more information on this program can be found in Appendix: 2).
The National Health Service Corps: This program was created in 1972, and is run through the United States Department of Health and Human Services. NHSC offers financial support to primary care providers who agree to practice in an NHSC designated area (which includes any federally designated HPSA). Additionally, the NHSC helps finance the State Loan Repayment Program (SLRP), which provides states with cost sharing grants (states must match federal funds to receive the grants). Each SLRP program is run though the state agency in which the program operates, and requires a two year commitment. Loan repayment varies based on the state in which the physician receives the grant. Currently Maine receives $175,000 in SLRP funds from the NHSC, to help finance the Maine Health Professional Loan Repayment Program (more information on this program can be found in Appendix: 2).

**APPROACH:**

The aim of this paper is to analyze potential financial policy alternatives to increase the number of primary care physicians practicing in Maine’s rural and underserved areas. While there are a number of different alternatives that the State of Maine could consider, a majority of these alternatives fall under the confines of three previously listed programs, community-state matching programs, state funded loan repayment programs, and state-tax credit programs. The four criteria used to evaluate these programs are cost, effectiveness, capacity, and feasibility.

**Cost:** Evaluating the cost of each alternatives is important, as the state currently spends roughly $1,302,000 each year on its recruitment and retention programs ($452,000 on the Maine Health Professions Loan Program and $850,000 on the Doctors for Maine Future Scholarship.
**Effectiveness:** Evaluating the effectiveness of each alternative, and how each of the three alternatives could increase the number of primary care physicians in the rural and underserved areas in Maine is critical to understanding if implementing a new program, or changing a current program would actually have its intended effect.

**Capacity:** Does Maine have the resources in place currently, such as an agency, and a supporting staff to implement a proposed policy/program. What would the State need to implement to ensure that it can correctly administer the program, if the current programs were changed in any way? Do the communities have the ability to administer the program as well?

**Feasibility:** Evaluating the feasibility of each of the alternatives is the final criteria. It provides the ability to determine if implementation of the alternatives is practical. The feasibility of funding and political support from the current Maine State Legislature, as well as the ability for the communities to fund portions of the State-Community Match Program will be analyzed in the next section.

**FINDINGS:**

Applying these criteria to all three programs it is easier to understand how each program – state tax credit programs, state funded loan repayment programs, and community match programs might impact Maine’s effort to recruit primary care physicians. The graphic below provides an overview of how the three financial incentive programs stack up against the four criteria, with a detailed report on each following (which will be followed by a discussion of specific policy options for Maine regarding the recruitment and retention of primary care physicians).
### Overview: Financial Incentive Programs for Rural Primary Care Physicians in Maine

<table>
<thead>
<tr>
<th>Financial Incentives for Rural Primary Care in Maine</th>
<th>Cost</th>
<th>Effectiveness</th>
<th>Capacity</th>
<th>Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community-State Matching Program</strong></td>
<td>Status-quo for State Government, increase on communities</td>
<td>Documented success in both North Dakota and Arkansas of keeping Primary Care Physicians in Rural Areas</td>
<td>The State of Maine would need to develop community agencies who would be able to administer the community-side of the program</td>
<td>Would be hard to pass in the state legislature, and hard to sell communities on getting involved in the program, to match the States dollars</td>
</tr>
<tr>
<td><strong>State-Tax Credit Program</strong></td>
<td>Increase in government funding through loss of tax revenue (if the physicians are currently paying Maine Taxes)</td>
<td>Has shown promise in Alabama, New Mexico, Georgia &amp; Louisiana</td>
<td>The program could be run out of the current Opportunity Maine Tax Credit Program</td>
<td>Most feasible option, as the State already has an existing program that could administer the program</td>
</tr>
<tr>
<td><strong>State Funded Loan Repayment Programs</strong></td>
<td>Significant increase in government funding</td>
<td>Has shown up to 70% of physicians stay working in a rural area (Montana)</td>
<td>Program could be run out of FAME, which currently administers both of Maine’s current programs</td>
<td>Very unlikely – as the State Legislature would need to increase direct funding to the current programs to provide loan-forgiveness</td>
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Community-State Matching Program: Currently, if the State of Maine wanted to develop a community-state matching program, it would need to develop a completely new incentive program, as the Maine Healthcare Professions Loan Program, and the
Doctors for Maine Future Scholarship do not currently translate into a community-match program. The State currently has an entity in FAME which could administer the program from the State’s side, but there are no rural, underserved communities that have the infrastructure to monitor such a program.

The cost of the program would vary based on the amount of loan-forgiveness offered, and the number of candidates selected to enter the program. If the State changed the Maine Health Professions Loan Program into a community-state match program, the State would be able to keep the same cost of the program ($452,000 as of 2014). The program could expand to granting $904,000 in loan forgiveness, as communities would need to match the $452,000 in loan forgiveness handed out by the State of Maine.

State-Community matching programs have reportedly been proven successful in both getting physicians to practice to rural and underserved areas, and retaining the physician in that rural or underserved area after the duration of their contract. This was shown in recent claims by the State-Community Match Rural Physician Recruitment Program in Arkansas, with 67% of physicians continuing to work in the community they were placed in, and 78% of physicians continuing to work in a rural or underserved area after their contracts were completed (North Dakota has also used a State-community match program).

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In terms of feasibility, State-Community matching program would be extremely difficult to administer, as the State currently has very little of the necessary infrastructure to ensure the program would be successful on the community-side. While FAME could administer the program, the program needs communities to be able to not only raise the funds necessary to ensure they can financially commit to the program, but also work in tandem with FAME to ensure the success of the program. Additionally, the State Legislature is currently cutting funding for educational purposes across the state (while loan repayment isn't a direct educational expense, it is common that a loan repayment program is started during the time the physician has entered, or current is a student at a medical school). While rural Maine legislators may see a benefit from the program, increased taxes in rural areas (to pay for the community portion of the loan repayment), and increased need of locally funded workers to oversee the program, may deter rural legislatures to push for the implementation of the program. Furthermore, property tax is the only way currently which communities in Maine generate revenue (which are used to fund the entire community’s public works) – thus, it is not realistic for a Maine community to use these funds to help provide a loan reimbursement package to a primary care physician. While other states have developed unique ways to combat this problem (such as Montana developing a fee associated with higher education which is then used to help provide loan forgiveness to primary care physicians graduating from medical school), it just is not currently feasible in the State of Maine.

**State Tax Credit Programs:** If Maine wanted to develop a state tax credit program for physicians willing to practice in the state’s rural and underserved areas, the state could use The Opportunity Maine Tax Credit Program. The current iteration of the Opportunity
Maine Tax Credit Program allows for up to $4,000 in tax breaks for individuals who have completed an undergraduate degree program, and up to $800 for individuals who have completed an associate’s degree.\textsuperscript{21} The program would need to be changed to include physicians who graduated from accredited medical schools, outside the state, as Maine only has two accredited medical school (at the University of New England and a program though Maine Medical Center and Tuffs Medical School). The program basis is already in place, and could be transitioned to primary care physicians who are willing to practice in the State’s rural and underserved areas. Maine’s 123\textsuperscript{rd} Legislature Final Report on the Commission to Study Primary Care Medical Practices already recommended that the Opportunity Tax Credit Program be expanded to primary care physicians who were willing to work in the state’s rural areas.\textsuperscript{22}

The cost of expanding the Opportunity Maine Tax Credit Program would have a direct cost on the State budget, as the program would be taking revenue out of the State’s general fund. If physicians were already paying state taxes, a tax credit would reduce their overall contribution to the State. Even recruiting new primary care physicians to the state (who take advantage of this program), would cause a loss in revenue. Expanding the Opportunity Maine Tax Credit Program would not force the legislature to increase funds to the program, yet the program does come at a financial cost for the State.

Currently state tax credit programs are run in numerous states, (e.g. Oregon, Oklahoma, New Mexico, and Louisiana) including the rural state of Alabama. While states have had success running tax credit programs, 40% of all primary care physicians are seeking loan forgiveness programs after graduation to help pay down their large debt loads, rather than state tax credit programs which just provide smaller amounts of financial relief. A $4,000 a year tax credit would be far less enticing to a physician willing to practice in rural areas, than a loan forgiveness package which would provide four or five times the financial incentive for the same year of service (as physicians are seeking out loan forgiveness programs which provide a much greater financial incentive). With the average physician leaving school with over $170,000 in student debt, (with interest costs during the payback period that expand that debt to $350,000 to $400,000 based on how the medical student structured their loans), a small tax credit program does not allow Maine to compete with states that are providing loan forgiveness programs.

The feasibility of implementing a state tax credit program for primary care physicians who are willing to practicing in rural Maine, within the current Opportunity Maine Tax Credit Program, structurally makes a lot of sense. It is a low cost option (at the current rate of $4,000 for each year served in a rural or underserved area), high reward program that could increase the number of physicians working in the state’s rural and underserved areas. Politically, implementing a state tax credit program for primary care physicians would seem like an easy sell to both of the major political

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parties in the Maine Legislature as the program would increase services offered in rural and underserved areas, while creating a tax credit for individuals conducting business in the state.

**State Funded Loan Repayment Programs:** If the State of Maine wanted to develop a state funded loan repayment program for primary care physicians to practice in rural and underserved areas, Maine already has two programs that it could use to administer the program. The Maine Health Professions Loan Program previously was a state funded loan repayment program until 2011. The program forgave 50% of all Health Professions Loans awarded (at a one-to-one ratio of years served to the years the loan was used) to physicians who practiced at least 20 hours a week in a federally qualified HPSA. Additionally, Maine currently has a Dental Education Loan Repayment Plan that provides the framework of an existing Maine loan repayment program – which provides dentists who agree to serve all Maine residents regardless of their ability to pay, and accept the payment terms of Maine-Care, up to $20,000 each year (up to four year total) of loan forgiveness.²⁵ Both of these programs are run out of FAME. An expansion of the Maine Healthcare Professions Loan Program, or the creation of a new program could be set up though the already existing FAME agency.

The cost of implementing a state funded loan repayment program would be large. Currently FAME awards 28 Maine Health Professions Loans (As of 2014 22 of these awards went to primary care physicians) – the program hits capacity each year.²⁶

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Providing each primary care physician who enters the program with $12,500 in loan forgiveness for each year they serve in a rural and underserved community would drastically increase the cost of the program. If the state decided to add back the loan forgiveness aspect of the Maine Health Professions Loan Program, the state’s contribution to the program would increase in the first year from $452,000 to $727,000, based on providing the award to 22 primary care physician. This would only increase as the program continued to provide loan forgiveness, as physicians would receive $12,500 for each year they took out the loan to provide services in underserved and rural communities in Maine.

Currently state funded loan repayment plans are being used around the United States to attract primary care physicians to practice in rural and underserved areas. The Montana Rural Physician Incentive Program (MRPIP) provides $100,000 of loan forgiveness for five years of service in the state’s rural and underserved areas. While the program is expensive, early evidence indicates that it works – 77% of all physicians who have been recruited into the program have continued to work in the state of Montana, and 69% of those individuals are still working in the state’s rural and underserved areas. 27 With 40% of primary care physicians preferring loan forgiveness (and loan repayment) programs after graduating from medical school, these programs are becoming even more important in recruiting a physician to practice in a state’s rural and underserved areas. Physicians who enter state funded loan forgiveness programs are 71% more likely to remain in their designated location after four years of service, and

52% more likely after eight years of service, than physicians who have been placed their in a program that did not provide loan forgiveness.\textsuperscript{28, 29}

Implementing a state funded loan forgiveness program in the State of Maine in the current political climate presents some feasibility challenges. The State has scaled back its commitment to financial incentives for service commitment from individuals completing university degrees. As of 2011, Maine stopped offering the loan repayment portion of the Maine Health Professions Loan Program. The State’s last major investment into financial incentives for primary care physicians, was a $3 million investment, to finance the Doctors for Maine Future Scholarship. Currently there is very little that points to the Legislature investing in a state funded loan repayment program, just four years after the loan repayment program was removed from the Maine Health Professions Loan Program.

**DISCUSSION AND CONCLUSIONS**

State funded loan repayment programs, state tax credit programs, and community-state matching programs all have shown success recruiting and retaining primary care physicians in rural and underserved areas. Maine currently does not provide a financial incentive program to attract physicians outside of financial help to medical students. Maine has the opportunity to create and mold a financial incentive program based on programs that have been successfully tested and used in other


states, and apply it to suit the needs of the changing healthcare system in Maine. The following section provides the five most important takeaways from this brief, and concluding discussion.

Reverting the Maine Health Professional Loan Program back to its previous state will provide Maine with a financial incentive package that does not compete with other rural states around the nation. Currently, state loan repayment programs average $20,000 yearly for a primary care physician to practice in a rural and/or underserved area – with states like Kansas and New Hampshire offering $25,000 for each year of service (with varying contract lengths). If Maine re-instated the Maine Health Professional Loan Program, it would also need to increase the amount of loan forgiveness provided, if it wanted the changes to the program to decrease the distribution problem in the state. The Maine Health Profession Loan Program would need to provide at least $20,000 yearly (varying contract lengths can be discussed), to physicians working full time in rural and underserved areas, to be competitive with similar programs around the nation.

Expanding the Opportunity Maine Tax Credit Program to physicians would be a start to a financial incentive package that could attract physicians to Maine’s rural and underserved areas. However, the program doesn’t provide the level of financial incentive that physicians are currently seeking after graduating medical school. Physicians graduating medical school are not seeking $2,000-$8,000 tax credit programs (with the Opportunity Maine Tax Credit Program providing up to $4,000) They are seeking programs that can help them pay down a large portion of their debt. Using this program in tandem with other financial incentive packages, such as a state funded
loan reimbursement program, that provides the previous level of funding the Maine Health Professional Loan Program provided ($12,500), would be a competitive benefits package that would allow Maine to compete with other rural states who are seeking physicians to practice in their rural areas.\textsuperscript{30}

While some states, like Arkansas and North Dakota have implemented successful community-state match programs, Maine communities are not in a position currently to help fund a competitive financial incentive for physician to begin practicing in their area. With property tax as the only source of income (which provides a wide range of services to the community), Maine communities face significant fiscal challenges. It makes little sense to expect rural communities that are struggling financially, to provide such a program. This leaves the onus on the state, and the hospital networks, to ensure that these areas have access to necessary primary care services. Many hospital networks around Maine already provide loan forgiveness to primary care physicians who are just exiting medical school, and both Maine Health, and the Eastern Maine Medical Center (EMMC) provide residency programs to help train physicians on the job (there is a strong correlation between where a physician undergoes their residency training, and where they begin to practice).\textsuperscript{31} Maine has the ability to help finance the growth of these programs (as Medicare funding for residency programs has dwindled in the recent past), by providing funding to increase the number of students who can be trained in these key Maine residency programs. These


residency programs could be funded fully by the state, or in a joint venture by Maine and the state’s hospital networks.

While Maine needs to implement a financial incentive program for primary care physicians, it needs to continue to target individuals who have ties to the state, and are interested in primary care. Recruiting physicians to rural and underserved areas should begin by increasing the number of medical school students with a rural background, and providing them training opportunities focused on rural health. Medical students with rural backgrounds, who have completed a rural focused curriculum, tend to choose to practice in rural areas and remain there over the long-term. Over half of medical students that undergo residency training in a rural area choose to continue practicing in a rural location following the completion of their residency (Maine Medical Center and Tuffs already have a partnership targeted at increasing rural workforce).\textsuperscript{32} It would be in the best interest for the state, to continue to provide financial assistance to medical students with ties to rural communities in the state – as they will help fill the gaps in the rural healthcare system in Maine.\textsuperscript{33, 34}

With 40\% of primary care physicians seeking a state funded financial incentive program post-graduation from medical school to assist paying their large debt loads, it is imperative that Maine provide a competitive financial incentive program to target these


\textsuperscript{33} Rabinowitz HK, Diamond JJ, Markham FW, Wortman JR. Medical school programs to increase the rural physician supply: A systematic review and projected impact of widespread replication. Academic Medicine. 2008; 83(3):235-43. Retrieved August 14\textsuperscript{th}, 2015.

medical school graduates. By using the same framework as the Maine Dental Education Loan Repayment Program ($20,000 for up to four years, totaling $80,000), the state would have a competitive financial incentive program that can ensure that rural and underserved communities have access to primary care services – while also trying to get physicians to remain in the area and continue to practice. State run financial incentive programs have consistently shown positive results in increasing the number of physicians practicing in their rural and underserved areas. While Maine is in a unique situation (above average number of physicians practicing in the state, yet still facing physician shortages), developing and implementing a state run financial incentive program for primary care physicians will help decrease the state’s physician distribution problem.

The Maine Legislature has an important decision in regards to the current distribution of primary care physicians throughout the state. Currently, having no direct financial incentive program to lure primary care physicians to practice in the state’s rural and underserved areas is putting Maine at a disadvantage when competing with other states to attract primary care physicians. While providing a competitive financial incentive program may not solve the distribution problem of primary care physicians in Maine by itself, it’s a promising strategy has consistently helped other rural states provide primary care physicians to their rural and underserved areas.

36 Maine Dental Education Loan Repayment Program - Finance Authority of Maine (FAME). Retrieved April 1, 2015, from http://www.famemaine.com/mai%EF%BC%85ne_grants_loans/mai%EF%BC%85ne-dental-loan-repayment-program/
Appendix 1: Current Maine State Policy:

The Maine Health Professions Loan Program: The Maine Health Professions Loan Repayment Program is run through the Financial Authority of Maine (FAME), which was created in 1983 by the Maine State Legislature, charged with supporting the startup, expansion and growth plans of the Maine business community. The mission of FAME expanded in early 1990 as the agency assumed the responsibility of administering the state’s higher education finance programs. FAME provides a number of loan, grant, and scholarship programs to help Maine Students meet the costs of obtaining a higher education degree.37

The Maine Health Professions Loan Repayment Program is a needs based, low interest loan program for Maine residents who are seeking a higher education degree in medicine, dental of veterinary education. Each student who accepts this loan can receive up to $25,000 per year for a maximum of four years while they are in medical school – this loan must be paid back to the State of Maine. Individuals who accept the loan are not bound to work in the State of Maine for any period of time – Individuals who do not work at least twenty hours a week in a federally qualified Health Professional Shortage Area (HPSA) are penalized with an 8% increase in their loan interest rate (This loan has a 0% interest rate for individuals practicing in a HPSA in Maine)38. It’s important to note that before 2011, the program provided 50% of the total loan balance in loan forgiveness to physicians who practiced in a HPSA location. This is no longer

the case for loans proctored after 2011, as Maine redacted some of the expansions to the program it made in 1990. The Maine Health Professions Loan Repayment Program is a part of the National Health Service Corps Student Loan Repayment Program (SLRP), and matches federal contributions with state contributions. The Maine Health Professions Loan Repayment Program is governed by 20-A M.R.S.A. §12101 et seq. and Chapter 617 of the Rules of the Finance Authority of Maine.

**Doctors for Maine’s Future Scholarship Program:** The Doctors for Maine’s Future Scholarship Program, created in 2009 by the Maine State Legislature, and signed into law by Governor John Baldacci, and provides eligible students a tuition subsidy of up to 50% of their education costs, or up to $25,000 each year – The Doctors for Maine future Scholarship Program is administered by the FAME. The purpose of the program is to increase the number of physicians in the State of Maine who practice primary care in rural and underserved areas. To be eligible for the scholarship program, the student must have a substantial connection to the state, such as prior education in the state, parental residence in the state, or at least one year of non-education related residence. It’s important to note that the State only provides this scholarship to residents who are entering and applying to medical school. Medical students who have completed medical school are unable to apply to any benefits. Only two medical schools participate in the program, Maine Medical Center/Tufts University School of Medicine Medical School Program, and the University of New England, College of Osteopathic Medicine. The Doctors for Maine Future Scholarship Program is governed by Chapter 424:

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Opportunity Maine Tax Credit Program: The Opportunity Maine Tax Credit Program, is a state tax credit program run though Opportunity Maine, a bipartisan collaboration enacted by the State of Maine Legislature in 2007. The Tax Credit Program provides tax incentives to college graduates who went to school in Maine, and work in Maine after their graduation. To be eligible for this program, you must meet both of those characteristics (both bachelors and associate degrees count towards the program). Individuals who apply for this tax credit, must spend at least 183 days each year in the State of Maine.40

The Tax Credit itself provides roughly $4,000 each year to individuals who received a bachelor’s degree, and significantly less to individuals who completed an associate’s degree. The tax credit can be used as a loan repayment tool. As of 2014, individuals who received a bachelor’s degree are eligible for loan payments of $363.00 each month, and individuals with an associate’s degree are eligible for $66.00 in loan reimbursement. Currently the Opportunity Maine Tax Credit Program does not provide any assistance to individuals who have completed a graduate or post-graduate education – this was addressed by the State of Maine’s 123rd Legislature Final Report on the Commission to Study Primary Care Medical Practices, which requested that the Opportunity Maine Tax Credit Program be expanded to include physicians.41

Appendix 2: Federally Funded Programs:

**National Health Service Corps (NHSC):** The National Health Service Corps is part of the United States Department of health and Human Services, Division of Health Resources and Services Administration’s Bureau of Clinician Recruitment and Service – NHSC was created by the United States Congress in 1972 to increase the overall health of communities who have limited access to care. NHSC offers financial support to primary care providers who agree to practice in NHSC designated areas. These areas are almost exclusively in rural and underserved areas. Currently there are over 47,000 health professionals who are working in NHSC designated areas (NHSC designated areas include any federally qualified HPSA), with a majority of them being primary care providers. Currently each Maine County has at least one NHSC location, with a majority having numerous locations in which primary care physicians can practice.

Additionally, the NHSC overlooks the State Loan Repayment Program (SLRP), which is a federally funded grant program that provides cost sharing grants to assist states with providing quality healthcare to individuals living in HPSAs. SLRP grants provide funds that must be matched by a non-federal contribution, at a one-to-one ratio (normally these funds are provided by the State who is overseeing the dispersion of the funds). Each SLRP program is run by a state agency in which it operates, and requires a minimum commitment of two years, with the loan repayment amount varying by state. As of 2015, the State of Maine receives roughly $175,000 each year in funding.

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from NHSC to provide loan repayment to health professionals who provide services in HPSAs⁴⁴.

**J-1 Visa Program:** The J-1 visa program is run out of The United States Department of the State, though the Bureau of Education and Cultural Affairs – it is also known as the Exchange Visitor Program. The J-1 Visa Program allows International Medical Graduates (IMGs), to remain in the United States after the completion of their medical degree (which they would normally need to return home for a minimum of two years before gaining re-entry into the United States), as long as the IMG agrees to practice in a HPSA. The normal waiver is identified as a 40 hour a week position in a HPSA, for a three year period. Both Federal and State agencies can sponsor J-1 physicians – State agencies must make their J-1 Visa request though the Conrad 30 Waiver Program.⁴⁵

The J-1 Visa Program provides critically needed physicians to rural and underserved communities. Currently over 300 IMGs each year are granted a J-1 visa waivers - with the State of Maine receiving roughly thirty J-1 Visa applications each year (which equates to thirty new physicians practicing in the rural and underserved areas in the State)⁴⁶. The J-1 Visa Program is used as a pipeline to get primary care physicians (and in some cases, specialists), into rural and underserved areas in the United States,

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with the hope that these physicians will settle down in the area in which they are practicing, and continue to practice in the area after their three year contract is up.\textsuperscript{47}