A Health Impact Assessment of Paid Sick Leave in Vermont

Prepared by the Vermont Department of Health

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Executive Summary

The Vermont Department of Health and key stakeholders conducted this Health Impact Assessment to assess the possible effect of a statewide paid sick leave policy on the health of Vermonters.

Key Findings

The key findings are summarized in a table on page 4.

- Paid sick leave legislation in Vermont would significantly increase access to paid sick leave, particularly among low-wage, part-time workers and employees of small businesses.
- There is strong evidence to support that paid sick leave would decrease the spread of infectious disease in Vermont annually. There is some evidence that this effect would be especially visible in child care and food service settings.
- Paid sick leave would likely increase the ability of domestic violence victims to access health and social services and maintain employment.
- There are limited data to definitively link paid sick leave to preventable hospitalizations. However, decreasing preventable hospitalizations by 10% would decrease health expenditures by $6.8 million in Vermont annually.

Key Recommendations

1. Implement and enhance data surveillance systems to track any potential impact of paid sick leave.
2. Make technical assistance available to businesses that already provide paid sick leave to employees, particularly those serving vulnerable populations, to ensure all businesses have strong paid sick leave implementation.
3. Conduct a statewide communications campaign to maximize the health benefits of paid sick leave by encouraging use of paid sick leave and promoting a culture that supports staying home from work when sick.
4. Ensure any legislation pertaining to paid sick leave includes coverage for those seeking services for interpersonal or domestic violence.
5. To ensure that workplaces create systems and cultures to support sick workers in using the paid leave and lessen impact on employers, provide comprehensive technical assistance to employers who would implement a paid sick leave policy, including: flexible staffing models, payroll systems, and appropriate use of paid sick leave.
6. Ensure any legislation pertaining to paid sick leave is inclusive of all employees to maximize health effects for Vermont's most vulnerable workers.

Summary Table: Health indicators, relative health impact, and strength of evidence

Impact of Paid Sick Leave on Health Indicator	Strength of National Evidence of Paid Sick Leave Impact on Indicator	Vermont Data Availability	Can Vermont measure a potential change?
Cost of avoidable hospitalizations	★	★★★	★★
Spread of illness in childcare settings	★★	★	★
Spread of illness in eldercare settings	★★	★	★
Spread of illness in food service settings	★★	★	★★
Spread of infectious disease in Vermont annually	★★★	★★	★★★
Number of school days students miss due to illness	★	★	★★
Access to preventive care visits	★	★	★
Ability of victims of domestic violence, sexual assault, and stalking to access services	★	★★	★★
Disproportionate impact to employees by industry type	★★★	★	★★
Days domestic violence victims miss, paid or unpaid	★	★★	★★

Table Key:

	Strength of National Evidence of Paid Sick Leave Impact on Indicator	Vermont Data Availability	Can Vermont measure a potential change?
★	Low	Not available	No
★★	Medium	Available but not comparable to national literature	Yes, but with limitations
★★★	High	Available and comparable	Yes, with a strong data source

Background

The push for mandatory paid sick leave in Vermont originated through the combined efforts of advocates for children and families and labor and worker advocates. Since then many other organizations have joined, with recent leadership by advocates of protection against domestic violence. This document reviews the potential health impact of implementing a statewide paid sick leave policy in Vermont.

What is a Health Impact Assessment?

According to the Centers for Disease Control and Prevention (CDC) a Health Impact Assessment (HIA) is a "process that helps evaluate the potential health effects of a plan, project or policy before it is built or implemented."[1] HIA is an objective process composed of six main parts: screening, scoping, assessment, recommendations, reporting, and evaluation. HIA involves stakeholders from all sectors in order to assess the health consequences and recommend strategies that can be implemented to improve health outcomes *before* a policy or plan is finalized. HIA is used in all sectors, from development projects to social policy.

What is paid sick leave?

This HIA refers to "paid sick leave" as time an employer will pay an employee to recover from an illness or injury; care for someone who is ill or injured; seek preventive care; or seek social or legal services, obtain medical care or counseling, or relocate as the result of domestic violence, sexual assault, or stalking. Paid sick leave is sometimes referred to as "earned sick leave", "paid health care time", or "paid sick days". The United States is one of the only developed countries without mandatory paid sick leave at a national level.[2] Currently, Connecticut, California, and Massachusetts are the only states with mandatory paid sick leave policies in place. In addition, paid sick leave laws are in place in the cities of Seattle, Washington; Portland and Eugene, Oregon; San Francisco and Oakland, California; Trenton and Montclair, New Jersey; Washington D.C.; and New York City, New York.

Employers often offer some form of paid leave, whether that is paid vacation time, paid sick leave, paid personal days, or some combination of paid leave time. This HIA is focused on paid sick leave, which may be included in combined leave, as it relates to the legislation introduced in the Vermont Legislature.

What is the proposed paid sick leave legislation in Vermont?

In the 2013 session of the Vermont Legislature, Representative Jill Krowinski of Burlington, with others, introduced H.208 in the House of Representatives.[3] The bill proposed to "ensure that all employees shall accrue a minimum number of paid hours annually so they can take paid time from work to take care of their own health and safety needs and those of their families." The bill required paid health care time for every 30 hours worked up to 56 hours annually. Workers could use paid health care time to recover from being ill or injured; or to seek preventive care; to care for a child, parent, parent-in-law, grandparent, spouse, domestic partner, stepchild, foster child, or ward of the employee. In addition, workers could take paid health care time to arrange for social or legal services and seek care or counseling due to sexual assault, domestic violence, or stalking. H.208 did not pass in the 2013-2014 biennium. The legislation was reintroduced directly before the publication of this document as H.187 on February 10, 2015.

Why do an HIA on paid sick leave legislation in Vermont?

The Vermont Department of Health is pursuing a Health in All Policies approach. In 2014, the Health Department screened various topics for a HIA. Paid sick leave legislation was chosen because it was immediately relevant due to legislation, it has possible health implications for many Vermonters, there are potential issues of health equity at stake, and there was capacity at the Health Department to lead a HIA. Health Department staff with HIA experience volunteered to lead the paid sick leave HIA and invited a group of stakeholders from a range of sectors to complete the HIA (see Appendix A for full list of stakeholders and participants).

Nationally, there have been several HIAs completed on paid sick leave policies, and there have been a number of evaluations of implemented paid sick leave policies. State and local health departments have lead or been key contributors to many of these HIAs. The first HIA conducted on paid sick leave was conducted by the San Francisco Department of Public Health with support from Human Impact Partners, a nonprofit that supports HIAs with training and technical assistance. Paid sick leave HIAs in Massachusetts and Maine received data support from state health departments. The Minnesota Department of Public Health is currently drafting a paid sick days and paid family leave analysis that is similar to a formal HIA.

Due to significant past work on this topic and the narrow time window for this project, this HIA will focus specifically on new research on paid sick leave, evaluations of current paid sick leave policy – specifically, how they relate to small business – and the impact of paid sick leave on victims of domestic violence, sexual assault, and stalking. There was intense debate in the 2013-2014 biennium around the feasibility and economic effect of paid sick leave legislation. The analysis in this HIA will focus primarily on the health outcomes that might be impacted by paid sick leave, but it will also discuss the feasibility of implementation for Vermont businesses.

Scoping

HIA Goals

The overarching goal of this HIA is to determine the potential impact of paid sick leave legislation on the health of Vermonters and to recommend ways to mitigate any adverse health impacts of such legislation. In addition to this overarching goal, the HIA stakeholder group chose to focus on aspects of special interest to Vermonters, namely impact on small business employees and the effect on victims of domestic violence.

HIA Scoping Process

To develop the HIA scope, the Vermont Department of Health convened a group of stakeholders and consultants from sectors whose employees are currently affected by a lack of paid sick leave, who would be especially impacted by implementing such a policy, or who serve populations that would see special benefits or challenges. The group included representatives from the Health Department, the Vermont Department of Labor, child care providers, the restaurant industry, trade organizations, elder care and home health, schools, primary care physicians, the Lake Champlain Chapter of the Vermont Chamber of Commerce, and the Vermont Commission on Women (Appendix A). This group met every two weeks over the phone from November, 2014 through mid-January, 2015, and communicated via email to collectively develop and write this HIA.

Prior to the first stakeholder meeting, all members received background information on HIA and examples of paid sick leave HIA from other locations. At the first meeting, stakeholders identified research questions, discussed which outcomes were of special interest, and drafted pathway diagrams, which were all finalized over the next two weeks.

Vermont Paid Sick Leave Scope

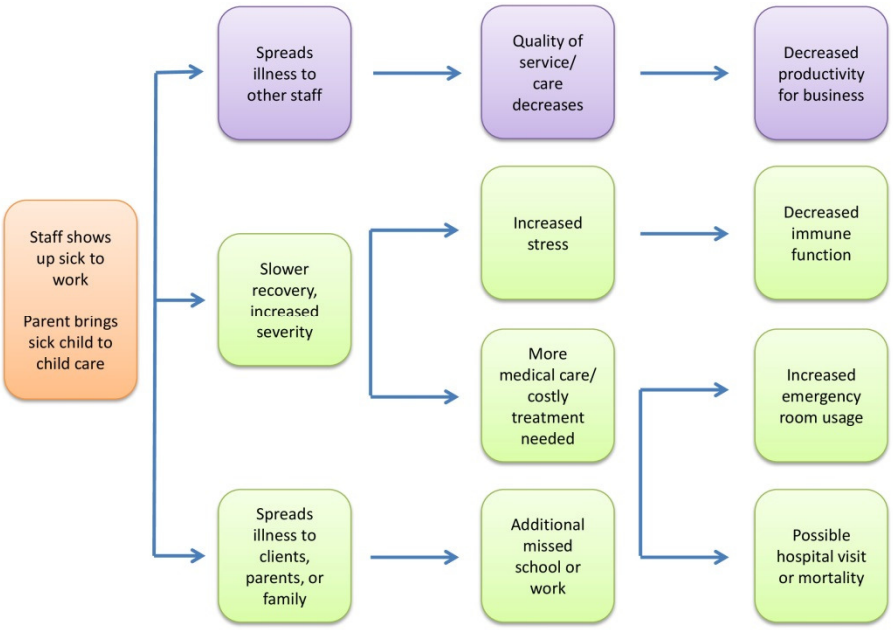
We considered the impact of a paid sick leave policy on all Vermont residents. Past research and HIAs of paid sick leave indicate that the populations most affected by Vermont's decision would be:

- Workers in low-paying, part-time, or other jobs that do not offer paid sick leave
- Children whose parents do not have paid sick leave
- Children and staff in child care centers
- Restaurant and retail workers and patrons
- Small business owners and the direct client or human service industry where paid sick leave is less common
- Victims of domestic violence, especially women
- Elderly Vermonters or others who use home health or elder care services

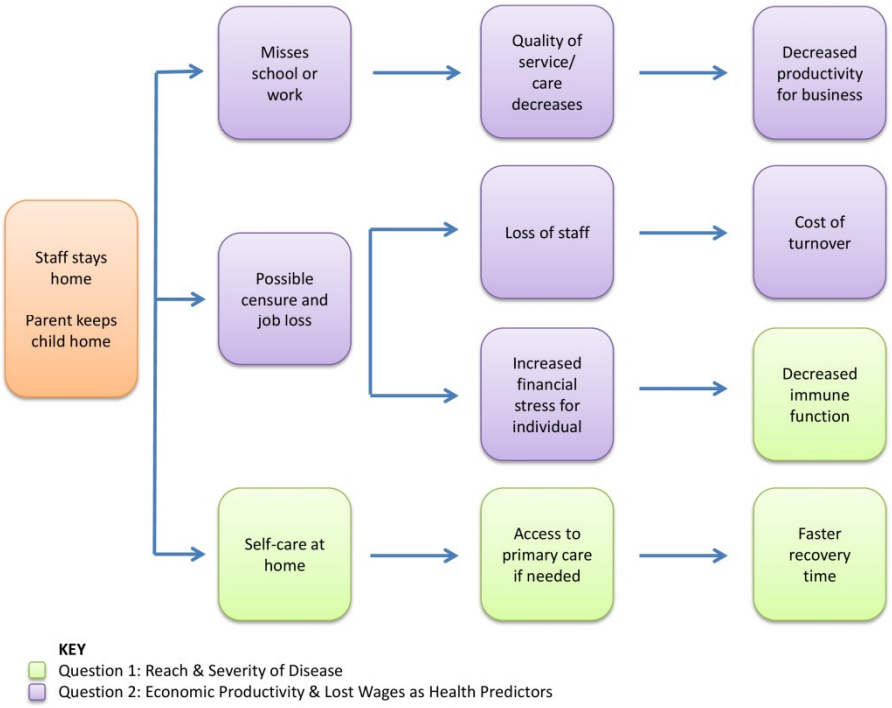
Pathway diagrams depict the potential links between the proposal and the eventual health outcome. Our stakeholder group used pathway diagrams from the national paid sick leave HIA and neighboring states as the basis for our pathway diagrams. We refined those pathways to focus on the following three scenarios:

- An employee with no paid sick leave goes to work or brings their sick child to child care
- An employee with no paid sick leave does not go to work or keeps their sick child home
- Choices available to an individual experiencing domestic violence with no paid sick leave

Scenario 1: No Paid Sick Leave – Goes to Work



Scenario 2: No Paid Sick Leave – Stays Home



Based on these pathway diagrams, we prioritized the following scoping categories and research questions with several questions noted as lower priority:

1. Reach and Severity of Disease

- Hypothesizing that individuals with access to paid sick leave are less likely to delay medical care for themselves or their family members (by accessing primary care) and experience better health, how will increasing access to paid sick leave impact the cost of potentially avoidable hospital stays?
- How would access to paid sick leave affect the spread of infectious disease in Vermont?
- How would access to paid sick leave affect the childcare, eldercare, and food service settings with regard to the spread of illness?
- Would paid sick leave impact the number of school days students miss due to illness? (*Low priority)*
- How would paid sick leave change access to preventive care visits? (*Low priority)*

2. Domestic Violence, Sexual Assault, and Stalking

- Would access to paid sick leave increase victims' ability to access services?

3. Economic Productivity and Lost Wages as Health Predictors

- Would paid sick leave disproportionately impact those in the direct service industry?
- How many Vermonters would gain access to paid sick leave?
- How many days of work do domestic violence victims miss, and how many of those days are paid or unpaid?

Outcomes not included in this HIA

- In-depth economic analysis of not going to work with no paid sick leave

Assessment

Methodology

The following section discusses the following topics for each research question:

- Summary of previous research on the question
- The data source(s) used in this analysis
- Analysis and methodology
- Findings
- Data gaps

The national HIA and previous state HIAs with similar demographics to VT (NH, ME) on paid sick leave were used for background information and their findings are summarized under each research question.[4,5] An HIA on national paid sick leave legislation was completed in 2009. To capture information and research from after 2009, we conducted a literature review through GoogleScholar. For articles published in 2009 or later, we used the search terms: leave OR days OR time "paid sick". Relevant articles from peer-reviewed or internationally respected health organizations were selected from the first ten pages of search results.

Results from the evaluations of paid sick leave from Seattle, Washington; San Francisco, California; and Connecticut are summarized where relevant to the research questions.

Findings

1. Reach and Severity of Disease

Hypothesizing that individuals with access to paid sick leave are less likely to delay medical care for themselves or their family members (by accessing primary care) and experience better health, how will increasing access to paid sick leave impact the cost of potentially avoidable hospital stays?

Previous research

Past HIAs have predicted that paid sick leave would decrease the cost of avoidable hospitalizations. However, evaluations of other paid sick leave policies did not track hospitalizations as a potential outcome measure, so there is limited research to support the causal pathway projected in other HIAs. Parents with access to paid sick leave would theoretically be able to access preventive care visits and vaccinations for their children and themselves, decreasing the risk of acute illness that would require longer absence from work. Individuals with chronic health conditions would be able to attend routine appointments and better manage their illness, reducing the risk of exacerbations and possible hospitalization.

A report "Evaluating Paid Sick Leave: Social, Economic and Health Implication for Washington" written by Economic Opportunity Institute in May 2013 looks at preventive care versus visits to the Emergency Department.[6] Included in this report, the "Institute for Women's Policy Research estimated that 1.3 million hospital visits could be prevented annually if workers across the country had paid sick leave. This translates to $1.1 billion in medical cost savings per year in the U.S., including $500 million in tax dollars spent by Medicaid, Medicare, and other public insurance programs." The HIA of the Healthy Families Act of 2009 looks at the effect of paid sick leave on preventable hospitalizations.[7] This study estimated that there are over 1,800 preventable hospital admissions per 100,000 adults each year in the United States. The HIA of paid sick leave in Maine looks at avoidable hospitalizations and emergency room visits; however, upon further investigation

it was found that the analyses were performed incorrectly,[5] thus Vermont opted not to use their methods.

Data sources

- Vermont Uniform Hospital Discharge Data Set (VUHDDS), 2012
- Hospital Compare data, May 2014 (http://www.ahrq.gov/professionals/systems/monahrq/data/index.html) This contains the cost-to-charge ratio for each hospital which allow the cost savings calculations using MONAHRQ.[8]

Analysis and Methodology

For this HIA, Health Department analysts performed new quantitative calculations for possible cost savings as detailed in Appendix B.

Findings

Every 1% decrease in potentially avoidable hospital stays in Vermont for all conditions would generate a total of $685,019 in savings. At the 10% level, this would save a total of $6,850,186 in health care costs, or $6.8 million (Appendix B). A 10% reduction in acute health problem stays accounts for $3.1 million in savings, and a 10% reduction in costs for chronic health problems accounts for the remaining $3.7 million.

It is important to note that above findings include only Vermont residents who used Vermont hospitals. They do *not* include the Vermonters who used hospitals in the neighboring states of New York, New Hampshire, and Massachusetts. In 2009, about 21.5% of Vermont residents used hospitals in the three neighboring states. In addition, these calculations do not include Vermonters under 18 years of age and therefore exclude any avoidable hospitalizations experienced by dependents (children) of workers.

Data gaps

Studies show that many hospital admissions for common chronic diseases and acute conditions are preventable with timely and effective primary care. However, there was no available direct empirical evidence that examined the relationship between the availability of paid sick leave and exact magnitude of preventable hospitalizations. If paid sick leave decrease avoidable hospital stays, our estimates show the cost savings for every percent decline.

How would access to paid sick leave affect the spread of infectious disease in Vermont each year?

Previous research on this question

Past empirical research and HIAs have repeatedly found that paid sick leave can decrease the spread of infectious disease. Strong and consistent evidence indicates that paid sick leave reduces the transmission of infectious disease such as flu or gastrointestinal illnesses if sick workers stay home from work. In the national HIA of paid sick leave, successful social distancing strategies (e.g. symptomatic people staying home), which paid sick leave could facilitate, were found to potentially decrease the cumulative influenza attack rate by 15-34%.[7] However, paid sick leave will only reduce infectious disease transmission if workers actually take sick time. While workers are more likely to take sick days if they have paid leave, they may feel pressure to work when they are ill based on workplace culture, lack of back-up coverage if they stay home sick, fear of employer retaliation, or a feeling of obligation toward their clients.[7]

Data sources

- Literature review

Analysis and methodology

The worldwide epidemic of H1N1 influenza in 2009 provided several important additions to the literature on paid sick leave and transmission of infectious disease. A broad study of the H1N1 pandemic and paid sick leave in Norway, which provides comprehensive paid sick leave, found that the rate of paid sick leave utilization increased by over 70% during the H1N1 pandemic relative to average seasonal influenza.[10] In addition, the percentage of paid sick leave due to caring for sick children increased four-fold, indicating that pandemic disproportionately affected children and young adults. Interestingly, the authors also found that overly cautious guidelines from the U.S. Centers for Disease Control and Prevention on the number of days needed for H1N1 recovery resulted in overuse of paid sick leave and a loss of economic productivity.

In a survey of North Carolina adults during the H1N1 epidemic, respondents were significantly less likely to vaccinate their children if they were employed, and 35% of respondents with children said they would be unable to keep their children home for the recommended recovery time if the child had influenza.[11]

Another study used a model of influenza transmission to predict that access to paid sick leave would decrease overall influenza infections in the workplace by 5.9%.[12] Small employers are less likely to offer paid leave and therefore more vulnerable to "presenteeism" when workers show up sick; in this study, paid sick leave had a greater impact on reducing infectious disease transmission for small employers through reducing presenteeism. Indeed, the lack of universal paid sick leave in the U.S. is estimated to have caused the infection of some 7 million coworkers during the H1N1 pandemic, while in contrast, Germany (which has universal paid sick leave) reported the lowest number of sickness absences ever recorded in the same year.[13] Even in non-pandemic years, the lack of workplace policies such as paid sick leave that allow workers to follow social isolation guidelines result in an additional 5 million cases of influenza-like illness in the general population.[14]

U.S. workers in low-paying jobs are less likely to be able to take time off to care for themselves or dependents if they stay home because of illness. In another study conducted during the H1N1 epidemic with a random sample of U.S. adults, 28% of U.S. workers reported that they would likely lose their job or business if they stayed home seven to 10 days because of a pandemic influenza outbreak.[15] Those without paid sick leave were nearly five times more likely to say they would lose their job or business if they stayed home. Furthermore, those earning less than $30,000 per year were three times more likely than those earning $75,000 a year or more to say they would experience substantial financial problems if they stayed home.

Disparities in access to paid sick leave also run across racial and ethnic lines. In a survey of a nationally representative sample of U.S. adults, Black and Spanish-speaking Hispanic workers were found to be more vulnerable to H1N1 transmission than Whites because of a lack of paid sick leave, reliance on public transportation, and fewer options for child care separate from other children.[16] Workers who report that it would be difficult to stay home from work or can't work from home are also more likely to report having had influenza-like illness, indicating that they are more vulnerable to influenza transmission.[14]

Findings
Our review of past HIAs and new literature indicate strong, consistent evidence that paid sick leave would reduce the transmission of infectious disease in the workplace. In addition, our findings suggest that the risk of contracting infectious disease because of lack of paid sick leave is not distributed equally across the population. Low-income workers are at disproportionate risk of contracting and spreading illnesses such as pandemic influenza because they are less likely to be able to miss work. It is worth noting that many of the population groups considered to be most vulnerable to influenza and that are prioritized for the influenza vaccine – pregnant women, individuals who live with or care for infants under six months of age, young adults, and persons who have chronic conditions that put them at additional risk for influenza-related complications – are also among those who lack access to paid sick leave.[7]

Data gaps
We were unable to complete an estimate of the number of cases of infectious disease in Vermont that could be prevented through mandated paid sick leave. While data on hospitalizations and office visits for influenza or influenza-like illness exist, we did not have access to a population-wide measure of influenza-like illness in Vermont each year. Furthermore, it is important to note that influenza is only one of several infectious diseases that result in workplace infection and illness. We feel that the national data are strong enough to indicate that Vermont workplaces would see a significant decrease in infectious disease with mandated paid sick leave.

How would access to paid sick leave affect the childcare, eldercare, and food service settings in particular in regard to the spread of illness?

Previous research on this question
Childcare, eldercare, and food service settings are venues where paid sick leave have the potential to most reduce presenteeism and disease transmission. Past HIAs and evaluations of paid sick leave policies have focused on the direct service industry because of a relative high percentage of employees without paid sick leave and possible transmission from staff to a large number of people. The national paid sick leave HIA cites a large national study showing that 71% of foodborne disease outbreaks between 2003 and 2007 in the U.S. and 61% of related cases of illness occurred in settings such as schools, child care facilities, restaurants or delis, workplace cafeterias, grocery stores, hospitals, jails, and other workplace or institutional settings where a sick worker could facilitate the spread of disease.[7] Further, 39% of outbreaks and 55% of related cases involved a food handler or worker as opposed to a client or customer. Norovirus is mentioned as being a particular risk for nursing homes; a 2006 CDC study found that 23% of all norovirus outbreaks occur in nursing homes.[7]

The data source(s)
- Literature review
- Qualitative input from stakeholders

Analysis and methodology
New findings on the transmission of illness in childcare, eldercare, and food service settings are both case examples and population-based studies, not new quantitative analysis.

Findings

Paid sick leave could reduce disease transmission in child care, elder care, and food service settings. As stated above, studies show that people who have paid sick leave are more likely to stay home when sick. However, the literature suggests that the magnitude of the impact is highly dependent on whether workers use their available sick time.

In eldercare facilities, the data are mixed. A study of New York State nursing homes found that homes with paid employee sick leave were less likely to have communicable disease outbreaks; however, a case example of a nursing home with paid sick leave illustrated how norovirus could spread if sick staff did not take time off.[17] In a survey of long-term care facilities, the authors found residents were either more or less likely to get an infection if staff had paid sick leave, depending on whether they were in a facility or being visited by aides; the authors noted that their findings also conflicted with prior work.[18] Anecdotal findings from our stakeholder group corroborated that workplace culture is likely a barrier to taking paid sick leave, even if it is available to the employee. Not-for-profit home care and hospice service providers in Vermont provide combined time off for regularly scheduled employees, and per diem employees can earn paid time off that could be used for sick time. However, workers might hesitate to take time off if they know there is a shortage of skilled or unskilled workers to cover who are appropriately trained and authorized to provide services to patients.

There are concerns from the home health care agencies that the cost of implementing paid sick leave could be extensive in their field. The Vermont Assembly of Homecare and Hospice Agencies estimated that should they provide paid sick leave to all of their employees (including per diem) who do not currently have it, and should all of those employees take all of the time they could potentially earn, including the startup costs, the total cost could exceed $500,000 the first year of implementation.

For child care centers, published and qualitative data suggest that paid sick leave could reduce disease transmission. As discussed in the preceding section, workers with low-paying jobs are less likely to be able to keep sick children home or find alternative child care.[15,18] Jobs in food service and nursing home assistants are typically lower-wage jobs.[7] Our stakeholder representative from child care facilities presented two common scenarios based on her facility's experience:

- **"Case #1:** A child is brought to the center sick; staff are unaware of what has happened at home and the symptoms parents observed. While child is in care, staff observe that the child seems tired or lethargic, is out of sorts, fussy. A few hours into the day the child begins to feel feverish, their temperature is taken and they have a fever. The parent is called and they then explain that the child vomited last night, didn't sleep well, seemed okay in the morning so the parent gave them Tylenol and sent them to care. The child care provider sends the child home with instructions that they are not to return until 24 hours without symptoms including fever. The next day the sick child stays home. Over the course of the next few weeks several children come down with a flu-like virus including vomiting and fever.
- **"Case #2:** A parent calls first thing on a Monday morning and tells the care provider that their child was sick on Sunday. The child seems to be on the mend, but the fever didn't break and until late Sunday evening so they are staying home. That same parent calls on Tuesday morning to explain that the child still isn't 100% so is staying home for one more day. The child returns on Wednesday, has been symptom-free for well over 24 hours, and within the next week no other illness is reported in the center."

The child care provider noted that, "these two cases are based on real occurrences and are the norm. Children who are kept home reduce the amount of others impacted by the illness and the length of the illness remaining within a population. Catch it quick, it goes away, spread it and it lingers."

As another stakeholder from the child care field pointed out:

> "Child care regulations already prohibit children's attendance if they are ill as indicated by a level of fever and/or particular diagnosis. However, parents need enough paid sick leave so that they can care for their child without the concern of losing pay or employment. Given the frequency of illness among young children in group care, even parents with generous amounts of paid sick leave may struggle. Parents without paid sick leave are generally low wage workers who are at risk of losing employment and then housing if they take time off.

This stakeholder also pointed out, the challenge of paid sick leave for child care workers:

> "Child care programs struggle with the cost and logistics of paid sick leave. It makes sense for sick employees to take time off with paid sick leave to assure that they get well sooner and that illness is not as readily spread. However, programs struggle with the cost and availability of the substitutes needed to cover the work of the sick employee because by regulation, an appropriate ratio of adults to children needs to be maintained. Unfortunately, in practice, many child care employees go to work when they are sick to avoid the stress that a staff absence may cause for the remaining staff and children and sometimes, just to simply maintain the program's capacity to serve the children enrolled. In a Family Child Care Homes, a sick day for the provider may mean closing the program if the provider does not have a regular sub or if they do, the sub isn't available that day."

To summarize, while child care centers recognize the importance of paid sick leave to limit the spread of illness, the practice of implementing these policies successfully can be a challenge.

Reduction in disease transmission in food service settings has more evidence from the literature and qualitative findings. An extensive national survey of restaurant food workers conducted by the Centers for Disease Control and Prevention found that 12% of food workers said they had worked two or more shifts while experiencing vomiting or diarrhea in the past year.[19] Food service workers that had a food worker on-call in case of staff illness were less likely to report working while experiencing vomiting or diarrhea. Paid sick leave did decrease the number of instances of working while ill, but the relationship was not statistically significant.

Norovirus is very contagious and the leading cause of disease outbreaks from contaminated food in the U.S.[20] Outbreaks can occur anywhere people gather or food is served. People with norovirus usually vomit and have diarrhea, sometimes requiring hospitalization and possible death. Infected people can spread norovirus to others through close contact or by contaminating food and surfaces. Food service workers who have norovirus can contaminate food and make many people sick. In norovirus outbreaks for which investigators reported the source of contamination, 70% are caused by infected food workers. The food service industry can help prevent norovirus outbreaks by ensuring sick food workers stay home and consider use of paid sick leave and on-call staffing to support compliance.[20]

Foodborne disease continues to be an important problem in the United States and also in Vermont. While individual cases of norovirus are not reportable, Vermont Department of Health surveillance data for reportable laboratory-confirmed foodborne diseases in 2013 indicates that Vermont has an

incidence rate of *Campylobacter* infections (29.4 per 100,000) that is more than two times the national FoodNet rate (13.8 per 100,000). While many food preparation and environmental factors can contribute to foodborne illness, most illnesses are preventable and reducing the occurrence of ill food workers is one component of reducing the opportunity for foodborne illness transmission.

Data gaps
The findings applicable to the transmission of infectious disease also apply to elder care, child care, and food service facilities, but few studies pertain directly to these settings.

Would paid sick leave impact the number of school days students miss due to illness? (*Low priority)*

Previous research on this question
According to the literature reported in the Health Impact Assessment of the Healthy Families Act of 2009, paid sick leave increased the number of visits to providers for sick children by 27%.[7] In addition, a study of families of children with special health care needs reported that parents who had paid sick leave were more likely to report positive physical and emotional health for their children compared to those parents without paid sick leave.[7]

Parents are significantly less likely to segregate their children from other children if parents are working and do not have paid sick leave. Horney reports that only 65% of workers surveyed in North Carolina during the H1N1 outbreak in 2009 would be able to keep their kids home seven to 10 days or longer in case of illness or school closures.[11] Additionally, minority populations are significantly more likely to have difficulty accessing child care separate from other children compared to whites and more likely to have difficulty avoiding exposure on public transit.[16]

The natural hypothesis is to say that if all parents had paid sick leave, fewer students would be sent to school while ill if parents or guardians used paid sick time to stay home with ill children. This in turn would reduce the spread of illness in schools. The difficulty is finding empirical data to support the hypothesis.

Schools are also food establishments. Lee and Greig found that 45% of outbreaks of gastrointestinal illness in schools were foodborne outbreaks.[21] Similarly to restaurants, paid sick leave for school food workers is an important measure to reduce transmission of foodborne illness

The data source(s)
- Data from the Data Resource Center for Child and Adolescent Health were used to examine the total number of school days students missed due to illness or injury.
- Qualitative data from Vermont school nurses were used to examine the complexity of absenteeism data and the many factors involved in whether or not a child stays home from school when ill.

Analysis and methodology
A basic comparison of absenteeism rates in Vermont compared to the U.S. was inserted in order to see any differences. Qualitative data from Vermont school nurses were compiled and summarized.

Findings
The National Survey of Children's Health provides data from surveys to parents about school absenteeism for illness or injury that can be compared state to state. The National Survey on Children's Health shows that Vermont has a marginally higher rate of students missing one to five

days of school due to illness or injury compared to the U.S. average, but a significantly lower rate of missing 0 days of school.[22] While these data are not sufficient to show a correlation with absenteeism and paid sick leave, following the trends in states that have implemented paid sick leave legislation over time could be informative.

Table 1. Indicator 1.6: During the past 12 months, about how many days did [child name] miss school because of illness or injury?[22]

Number of school days missed during past 12 months due to illness or injury		0 days	1-5 days	6-10 days	11 or more days
Nationwide	%	22.9	58.7	12.2	6.2
	C.I.	*(22.2 - 23.7)*	*(57.8 - 59.5)*	*(11.7 - 12.8)*	*(5.7 - 6.6)*
	n	12,947	39,516	8,612	4,004
	Pop. Est.	11,232,116	28,736,781	5,987,872	3,021,781
Vermont	%	15.9	63.0	13.5	7.6
	C.I.	*(13.2 - 18.6)*	*(59.5 - 66.5)*	*(11.0 - 15.9)*	*(5.7 - 9.5)*
	n	197	859	179	105
	Pop. Est.	13,919	55,080	11,783	6,652

C.I. = 95% Confidence Interval. Percentages are weighted to population characteristics.
n = Cell size. Use caution in interpreting Cell sizes less than 50.

Qualitative findings from the perspective of a school nurse

One stakeholder gathered stories and perspectives on paid sick leave from school nurses and her own experience. She has worked in five different schools spanning Pre K-12 in Chittenden County, Vermont. Her cases illustrate the complex behaviors which go into assessing a student's illness by the parents and the factors which go into the world of work and how time off is perceived and used. It is important to note that well-meaning, well paid, parents with paid sick leave may still send in a sick child or be unable to pick one up.

- The number of students sent to school "ill" is difficult to quantify. An ill student sent to school may or may not present at the health office for care. They could be quite contagious, but if they do not want to leave school (for any number of reasons), they may not access our care.
- If they do present at the health office and are assessed to be ill, the biggest barrier in sending a student home is often transportation. Parents may be home but may not have a car or a working car.
- A common problem is a parent or guardian's inability to leave work, regardless of paid sick leave. A typical example:
    - Student comes in and appears unwell. Complains of body aches, headache and sore throat. The student had been medicated with Dayquil containing Tylenol two hours prior at home and now has a temperature of 99.0. Parents are fairly easily contacted. Both have paid sick leave but are "unable to leave work". They arrange for the grandfather to pick up the student.
- Chronic illness and special needs students have more frequent illnesses. Parents use up all available sick leave quickly and can sometimes attempt to conserve available sick leave by sending in a student with a mild illness that could still be quite contagious to staff and other students.

- Communication can sometimes be a barrier. Parents may not be reachable or have a working phone.
- Highly contagious diseases in high school students present many other complicating factors. Anecdotally, two recent outbreaks that occurred in Vermont high schools illustrate how paid sick leave would likely not prevent all outbreaks. In both cases students were old enough to stay home alone, but did not. The first example was the coxsackie outbreak at North Country High School in the 2013-2014 school year among students on the football team. This example brings into consideration the potential increased risk of contagion when playing on a team. The second example was an outbreak of the H1N1 flu at Essex High School in December of 2014. Athletic policies at Essex High School prohibited playing in a game if the student missed school; this made students on the football team reluctant to stay home, especially when their team made the playoffs. The motivation to be present at school and play football may have outweighed their concern for their own health and the health of others and could have contributed to further spread of the flu.

Data gaps
The Vermont Agency of Education tracks overall school absenteeism but does not break down the categories of absenteeism across all schools to identify the illness subcategory. Attendance is generally monitored by school secretaries. School nurses are generally not part of that process but that varies by school. Data on the number of students absent due to illness on any given day may be obtained for a single school, but as of now that information does not go into a statewide database.

A more in-depth qualitative study would be required to have a more complete qualitative analysis of when, and why students go to school sick in Vermont. Such a study would require interviewing parents, school administrators, coaches, pediatricians, students, and school nurses.

How would paid sick leave change access to preventive care visits? (*Low priority)*

Previous research on this question
The National HIA of paid sick leave noted that while access to preventive care has significant health benefits, there had been little research on the link between preventive care access and paid sick leave.[7]

The data source(s)
- Literature review
- Insurer data from the Centers for Medicare and Medicaid Services and Vermont Blue Cross Blue Shield

Analysis and methodology
- Literature review

Findings
A 2012 analysis of the National Health Interview Survey of paid sick leave and access to preventive care found that individuals with paid sick leave were significantly more likely to have had at least one visit to a health care provider during the past year.[23] In the same study, individuals working in small firms, with fewer years on the job, or in "service or production occupations" were less likely to have sick leave. While we were able to obtain some Vermont health insurer data related to

preventive care visits, limitations on time and existing literature to guide analysis meant we did not analyze data for this HIA.

Data gaps
More data are needed on the link between preventive care visits and paid sick leave. This could potentially be measured in Vermont with population-based health surveys (see Recommendations).

2. Domestic Violence, Sexual Assault, and Stalking

Would access to paid sick leave increase the ability of victims to access services?
Previous research on this question
None.

Data sources
- Literature review
- Vermont Council on Domestic Violence, in collaboration with Center for Rural Studies at the University of Vermont and Violence Intervention and Prevention Programs at Spectrum Youth & Family Services.[24]
- Qualitative data from member programs of the Vermont Network Against Domestic and Sexual Violence.
- Testimony given before the Vermont House Committee on General, Housing, and Military Affairs in 2014, as part of their consideration of H.208, A Bill Relating to Absence from Work for Health Care and Safety.[3]

Analysis and methodology
We gathered information from published reports and research; testimony given before the Vermont House Committee on General, Housing, and Military Affairs in 2014, as part of their consideration of H.208, A Bill Relating to Absence from Work for Health Care and Safety; and qualitative data from an informal online survey sent to fourteen domestic and sexual violence programs throughout Vermont, all member programs in the Vermont Network Against Domestic and Sexual Violence, in December 2014.

Findings
Victims of domestic violence, sexual assault, or stalking experience impacts on their work life, including missed work, lost wages, and increased stress.

Kwesiga et al. suggest that workplace benefits are essential for survivors to escape abuse and that "benefits and workplace supports can give victims of domestic violence physical, emotional, and logistical support."[25] Nationally, about one in eight employed stalking victims lost time from work because of fear for their safety or because they needed to get a restraining order or testify in court.[26] More than half these victims lost five days or more of work. A 2012 report on the effects of domestic violence on the workplace in Vermont described how supportive employers would give time off: "[My employer] gave me the time I needed and was supportive. I took four days to recover emotionally and move out." [24]

The same report identified common reasons why the partners of Vermont batterers took time off work as:
- address emotional and/or mental issues (26%),

- address physical injuries (26%),
- attend court/legal meetings (24%), and
- rest and recover post incident (9%).[24]

Additional reasons given for taking time off work included: visiting a police station or hospital; complying with a partner's demand to not attend work; visiting a partner in jail; moving out of the house; avoiding a partner's harassing phone calls received at work; avoiding a partner at their shared place of employment; addressing relationship issues with a partner. [24]

The Institute for Women's Policy Research, in their brief from April 2013 entitled, *Valuing Good Health in Vermont: The Costs and Benefits of Earned Health Care Time*, estimated the number of victims of domestic and sexual violence in Vermont who were likely to utilize paid sick leave. Quoted from that brief:

> "For the purposes of this estimate, data were obtained from the U.S. Department of Justice Bureau of Justice Statistics (Catalano 2012). The most recent data indicate that in 2010 the rate of intimate partner victimizations for females was 3.6 victimizations per 1,000 females ages 12 years or older. Applying this rate to the Vermont working population, we estimate there are about 224 individuals that are victims of domestic violence and do not have access to paid leave of any kind. From the National Intimate Partner and Sexual Violence Survey (CDC 2011) we know that only about 28 percent of victims of violence take time off from work. We used these figures to estimate the incidence of domestic violence in Vermont relative to the eligible population. Seventy workers are estimated to take time off work for reasons related to domestic violence or stalking. We assume these workers will take the maximum number of days allowed under earned health care time. This amounts to 4.6 additional days for covered workers."

From an informal, online survey sent to fourteen domestic and sexual violence programs in Vermont, all member programs of the Vermont Network Against Domestic and Sexual Violence, conducted December 2014, we found that:

- A majority of Network member programs report that:
  - Less than 25% of employed victims have access to earned sick leave.
  - Victims most typically seek legal and support services during weekday business hours.
  - Victims' inability to get paid time off from work negatively impacts her or his ability to seek and secure services and safety.
  - Access to earned sick leave would increase the ability of victims to access services.
- When does a victim's inability to get paid time off from work negatively impact her ability to seek and secure services?:
  - "When a victim is asked to speak with police, get medical advocacy, when the victim is going through never ending legal systems."
  - "Survivors suffer financially and legally when they do not have access to paid time off from work. Survivors typically have multiple and complex issues that must be dealt with from obtaining legal services, counsel, and court appearances, mental health counseling for themselves and their children are often required, housing issues, transportation issues and financial issues are present in many survivors day to day reality. These are in addition to the normal issues that we all face such as family illness (their own and their children's) and other health care needs, school functions and other everyday demands. The majority of these issues need to be dealt with during the business day when professional assistance is available but

employed survivors cannot afford to take time off. Most are already living in poverty struggling to survive financially and many employers are not understanding of the impact of domestic and sexual violence of survivors and their children."

- "We often have victims come in during their lunch hour or call during this time to get information on available services and options. Victims often get some initial time off (without pay) to come in and take care of some things but have issues getting time off for necessary follow up such as RFA hearings, case managers conferences, meetings with ESD, housing applications, possibly meetings with DCF, etc."
- "With cases in criminal court, victim's compensation isn't always able to cover time missed from work. When victims want to come in and meet with the prosecuting team and advocate face to face, they may not get any reimbursement for this. I have had several victims tell me they don't want to miss work. In regards to family court it is even more challenging for victims because there is no crime victim's compensation for family court cases."

Data gaps

There is no direct evidence that survivors of domestic violence who have access to paid sick leave use it to increase their use of services, so this HIA based findings on the literature, preliminary qualitative findings and experience of those working in the field.

3. Economic Productivity and Lost Wages as Health Predictors

Review of Paid Sick Day Policy Evaluations

Summary and Direction of Findings

In completing this HIA, we reviewed three evaluations of paid sick leave legislation: Seattle, Connecticut, and San Francisco.[27-29] There are a few important items to note in using these evaluations in policy decisions in Vermont. The first is that all three policies were implemented in metropolitan or largely metropolitan areas, and Vermont is one of the most rural states in the nation. In addition, the Seattle and Connecticut laws differ from the legislation introduced in Vermont in that they limit the jurisdiction of the law to businesses of certain size; San Francisco requires all employers to offer paid sick leave.

The 2011 Connecticut paid sick leave law was limited to businesses with 50 or more employees and had exemptions for manufacturing and nationally chartered non-profit organizations. The evaluation, completed in 2013, found that 47% of businesses did not experience any increased costs, 30% experienced an increase of 2% or less, 5% experienced an increase of 3-4%, and 7% experienced an increase of 5% or more (12% did not report).[28] It is important to note that the evaluation stresses that the low impact on employers was in part due to the limit on the size of the employers mandated to provide paid sick leave. The report notes that "The largest increases in paid sick leave coverage after the law went into effect were in health, education, and social services; hospitality; and retail."

The 2011 Seattle paid sick leave law was limited to businesses with 4 or more employees and had a tiered system for determining how much leave an employee earned based on the size of the employer.[27] The costs to employers were not calculated for this law as the majority of employers reported that they did not track the costs. An important finding regarding the implementation of the law was that most employers were offering leave, but:

> " 4 out of 10 employers still do not seem to be offering enough leave to their eligible workers. Many of these non-compliant employers know about the Ordinance and believe they are compliant, which suggests that more outreach and technical assistance might bring them into full compliance."

San Francisco enacted a paid sick leave policy in 2007. A study of Bay Area employers in 2009 found that the proportion of employers with a sick leave policy increased from 73% to 91% in response to the new ordinance.[29] Employers with fewer employees were more likely to have begun offering paid sick leave, as were those in the accommodation and food service sector. Major changes to sick leave policies were associated with a decrease in presenteeism, or workers showing up sick; an increase in employee morale; and more than 70% support among all employers. However, employers also reported that they had reduced benefits in other areas if they increased sick leave and had increased prices of goods and services. Overall, the authors concluded that the majority of employers already had policies in compliance, 17% made minor changes to their policy, 18% implemented a new policy, and only 9% were likely not in compliance. Some of the economic impacts on business likely stemmed from the concurrent economic crisis in 2008.

In all three instances, the majority of employers and employees supported the law, and access to paid sick leave was expanded as a result of the law. In all instances, part-time employees or employees of small businesses were noted as being those who benefited the most from increased coverage. In all instances, a minority of employers reported decreasing wages, decreasing other benefits, or decreased profits. Reports of abuse of paid sick leave by employees were low in Seattle and Connecticut, and San Francisco had mixed data on how paid sick leave impacted predictability of absenteeism.

Additional research has shown other potential economic benefits of providing paid sick leave:

> "Another aspect relates to costs of reduced productivity when working while being sick: Estimates indicate that productivity losses due to working while sick are up to three times higher than loss in productivity due to sickness related absence."[13]

While considering the individual employer, it is also important to consider the economic impact overall on the economy and employers more generally. As noted in a study of the H1N1 outbreak:

> "…gaps in paid sick leave result in severe impacts on public health and the economy as recent studies on H1N1 confirmed: In 2009, when the economic crisis and the H1N1 pandemic occurred simultaneously, an alarming number of employees without the possibility of taking paid sick leave days attended work while being sick. This allowed H1N1 to spread into the workplace causing infections of some 7 million co-workers in the USA alone. In the same year, the Federal Government of Germany reported the lowest number of sickness absence ever recorded. (In the USA) Fears of losing one's job, restructuring, downsizing, and financial worries were identified as reasons for the dangerous and costly presence of the sick at work."[13]

How many people do not have access to paid sick leave?

Previous research on this question
Nationally, 39% of the private workforce does not have access to paid sick leave.[30]

The data source(s)
Literature review.

Analysis and methodology
Literature review.

Findings
In Vermont, there is no single data source to estimate the total number of employees who would gain access to paid sick leave under the proposed Vermont legislation. Using a combination of Vermont and national data, it is possible to create an estimate; however, given the number of assumptions necessary to complete the calculation, the end result was determined unreliable.

Despite this, given the national estimates, a substantial proportion of the Vermont workforce does not have access to paid sick leave.

Data gaps
There is no one data source or combination of data sources that can answer this question at this time.

What is the distribution of employment by industry that does not have access to paid sick leave?

Previous research on this question
In a report titled, *Expanding Access to Paid Sick Leave: The Impact of the Healthy Families Act on America's Workers,* authored by the Joint Economic Committee (JEC) established by Congress to review economic conditions and analyze the effectiveness of economic policy, the JEC wrote, "Paid sick leave is a critical element of job security and quality for American workers, yet forty percent of private sector workers today have no such leave." The JEC estimates that 61 percent of private sector workers have access to paid sick leave, but that low wage workers are less likely to have access to paid sick leave than higher wage workers:

> "Low-wage workers are far less likely than higher-wage workers to have access to paid sick leave today. Only 33 percent of workers in the bottom quartile of the wage distribution currently have access to paid sick leave, compared to 81 percent of workers in the top quartile of the wage distribution."[30]

In addition to the work done by the JEC, according to analysis done in 2009 on the 2007 National Health Interview Survey, at the national level there is "evidence of disparities in access to paid sick leave in the United States, particularly with respect to socio-economic status. Specifically, those with higher family incomes or with higher levels of education are more likely to have paid sick leave than those with lower incomes and lower levels of education."[7] Americans were more likely to have access to paid sick leave if they had a higher income, had a higher education, had health insurance, worked in the public sector, and rated themselves as being in good health.

Disparities in access to paid sick leave also exist by industry type, and the JEC reports that there are some occupations where interactions with the public present higher risk in terms of the spread of disease, but that in fact:

> "Despite the importance of access to paid leave for these critical occupations, food preparation workers and "personal care workers" are amongst the least likely to have such benefits today. Just 28 percent of child care workers in establishments of 15 or more employees have access to paid sick leave today. 48 percent of personal care workers in such establishments have access to paid sick leave today."[30]

Beyond disparities by wage and industry, there are also disparities in access to paid sick leave between rural and urban settings. According to a study using the 2008 National Study of the Changing Workforce (NSCW), "a greater proportion of rural workers than urban workers (both suburban and central-city) lack access to at least five paid sick leave per year."[31] The study found that 44 percent of rural workers lacked paid sick leave while only 38 percent of city workers lacked paid sick leave. In a different study using National Health Interview Survey data from over 38,000 working adults, the benefits of paid sick leave varied based on occupation. The study found that "with all other variables held constant, workers with access to paid sick leave were 28% (95% confidence interval = 0.52, 0.99) less likely than workers without access to paid sick leave to be injured." In addition, the association was greatest in high-risk sectors.[32] This means that paid sick leave was associated with reduced injury, particularly among the highest risk sectors.

The data source(s), analysis and methodology

The Vermont Department of Labor conducts a Fringe Benefit Study every two years to determine the type and amount of employer provided benefits as reported by Vermont employers. In 2013 it sampled 2,004 private employers representing eighteen percent of Vermont private non-agricultural businesses with three or more employees covered by Unemployment Insurance with the State of Vermont.[33] They stratified the sample by the employer size and location. Overall, the Department of Labor received a 54% response rate.

Due to potential biases in who responds to the Fringe Benefit Survey, the results represent the respondents only, and cannot necessarily be generalized to Vermont private employers overall.

Findings

The Fringe Benefits Study found in 2013 that "among full-time workers at organizations that responded to the study, 41 to 73 percent, depending on size class, had paid sick leave, or personal or consolidated leave (consolidated leave means that the employer does not break out sick leave from vacation and personal leave), available to them to use for sick time."

In Vermont, 96.4% of firms have under 50 workers. The Fringe benefits Study found that the percent of employers who reported offering paid leave to full-time employees varied by size:

- Among firms with 3 to 9 employees 44% offered paid leave
- Among firms with 10 to 19 employees 52% offered paid leave
- Among firms with 20 to 49 employees 62% offered paid leave
- Among firms with 40-249 employees 80% offered paid leave
- Among firms with 250+ employees 86% offered paid leave

Data gaps

In order to answer this question more fully, Vermont would need a study of employers that included their industry, number of employees, a breakdown between part-time and full-time positions as well as their benefit offerings for full- and part-time workers as it relates to paid leave. This level of detail is significant and past attempts to collect such data have been unsuccessful. As a result current available data are not specific enough to provide credible estimates about the number of jobs by industry in Vermont which offer paid leave as an employer provided benefit.

Attempts to produce estimates at the industry level using Vermont data (or Vermont data in conjunction with national data sources) have produced significantly different estimates. The variation in the estimates results in a limitation to speak directly to actual numbers. The wide

range of estimates relates to the quality and quantity of assumptions made necessary to complete a single tabulation. Specifically, some national studies provide broad level sector data which may not be appropriate proxies of Vermont's business climate. Alternatively, some Vermont specific data are calculated for full-time workers only and therefore may not be good representations of industries with high concentrations of part-time workers.

Employer-based surveys have historically proved problematic at getting a sufficient level of detail to answer this question. An alternative approach would be to supplement a statewide representative survey, such as the Behavioral Risk Factor Surveillance System or the Vermont Household Health Insurance Survey in order to generate a generalizable estimate of the number of Vermonters who lack access to paid sick leave by industry of employment. As previously mentioned, this type of survey could then answer the question regarding disparities based on education, income, gender, race, employment status and industry type. Note that the process for adding a question and then receiving the data takes a matter of years, so findings would be available at the earliest in 2017.

How many days of work do domestic violence victims miss, and how many of those days are paid or unpaid?

Previous research on this question
Nationwide, the Centers for Disease Control and Prevention report that nearly 8 million paid workdays were lost due to domestic violence in 2003, which equates to 32,000 full time jobs.[34]

The data source(s), analysis and methodology
- Literature review

Findings
Several studies point to lost work as a result of domestic violence, sexual assault, or stalking. A 2005 study using data from a national telephone survey of 8,000 women about their experiences with violence found that women experiencing physical intimate partner violence victimization reported an average of 7.2 days of work-related lost productivity.[35] A 2009 Department of Justice study found that nationally, among stalking victims who had a job, one in eight lost time from work.[26]

A Vermont study examined the effects of domestic violence on the workplace by interviewing 193 male participants in batterer intervention programs.[24] The study examined the impact on both the perpetrator and the victim in the workplace pertaining to abusive contact at the workplace, time taken off work, and productivity and safety. Twenty-five percent of respondents worked in food service, 17% in retail or customer service, 9% worked as housekeepers, and 4% as childcare providers, for a total of 55% in service industries.

The study found that partners of the batterers lost an average of 20 work days per person (in the two years previous to the survey), and 87% of those were unpaid. This comes to $1,180 per person in lost wages. 46% of perpetrators said their abusive behavior has a negative effect on the victims' productivity or career advancement. Reasons for lost time included to address emotional and or mental issues (26%); address physical injuries (26%); attend court or legal meetings (24%); rest and recover post incident (9%).

Data gaps

Data collection on domestic violence is challenging because of privacy concerns, difficulty identifying those suffering from domestic violence, and other factors.

Recommendations

Our findings suggest that passing and implementing paid sick leave legislation will have a positive impact on population health. However, there are ways that health and equity impacts of this legislation can be improved and steps that could allow for tracking the impacts of paid sick leave going forward.

Table 2 summarizes the findings and strength of evidence for each health indicator. For each one, we indicate the strength of the national evidence, the availability of Vermont data, and whether Vermont would be able to measure a potential change in the indicator if paid sick leave went into place.

In addition to the table, we have summarized the following for each research question:

a. Summary and direction of findings
b. Adverse impacts (if any)
c. How to mitigate adverse impacts (if any)

Table 2. Health indicators, relative importance, and strength of evidence

Impact of Paid Sick Leave on Health Indicator	Strength of National Evidence of Paid Sick Leave Impact on Indicator	Vermont Data Availability	Can Vermont measure a potential change?
Cost of avoidable hospitalizations	★	★★★	★★
Spread of illness in childcare settings	★★	★	★
Spread of illness in eldercare settings	★★	★	★
Spread of illness in food service settings	★★	★	★★
Spread of infectious disease in Vermont annually	★★★	★★	★★★
Number of school days students miss due to illness	★	★	★★
Access to preventive care visits	★	★	★
Ability of victims of domestic violence, sexual assault, and stalking to access services	★	★★	★★
Disproportionate impact to employees by industry type	★★★	★	★★
Days domestic violence victims miss, paid or unpaid	★	★★	★★

Table Key:

	Strength of National Evidence of Paid Sick Leave Impact on Indicator	Vermont Data Availability	Can Vermont measure a potential change?
★	Low	Not available	No
★★	Medium	Available but not comparable to national literature	Yes, but with limitations
★★★	High	Available and comparable	Yes, with a strong data source

1. Reach and Severity of Disease

Hypothesizing that individuals with access to paid sick leave are less likely to delay medical care for themselves or their family members (by accessing primary care), and experience better health, how will increasing access to paid sick leave impact the cost of potentially avoidable hospital stays?

Summary of findings
While there is no available empirical evidence that examines the relationship between the availability of paid sick leave and preventable hospitalization, Vermont data show that approximately $6 million in health care costs can be saved if implementing a paid sick leave policy reduced avoidable hospitalizations by 10%.

Recommendations

1. Track avoidable hospitalizations. The Vermont Department of Health, Division of Health Surveillance, can analyze the Vermont Uniform Discharge Data Set using MONAHRQ software annually.
2. Add a question about paid sick leave to the Behavioral Risk Factor Surveillance System in order to analyze in conjunction with access to preventive care services.

Adverse impacts
The findings suggest that the paid sick leave policy will have no adverse impacts in regards to accessing medical care and avoidable hospitalizations.

How would access to paid sick leave affect the spread of infectious disease in elder care facilities in Vermont each year?

Summary of findings
It is unclear how state-mandated paid sick leave could further restrict the spread of illness in nursing homes. While certain homes either separate or combine sick time with other types of paid time off, benefits offered already meet or exceed the 56 hour per year threshold most recently considered by the legislature. Nursing homes currently have policies and protocols in place to ensure illness and infection are not spread. This recommendation is based on examination of existing Vermont nursing home policies.

Recommendations

1. Continue to support elder care facilities in following policies and protocols that ensure the safety and health of their clients, including availability of paid sick leave for staff.

Adverse impacts
The findings suggest no adverse impacts in regards to the spread of infectious diseases.

How would access to paid sick leave affect child care settings in particular in regard to the spread of illness?
Summary of Findings
Findings suggest that paid sick leave could reduce the spread, length, and severity of illness in the childcare settings.

Recommendations

1. Ensure child care workers as well as parents have access to paid sick leave.

Adverse impacts

The findings suggest no adverse impacts in regards to the spread of infectious diseases.

How would access to paid sick leave affect food service settings in particular in regard to the spread of illness?

Summary of findings

In the literature, paid sick leave did decrease the number of instances of food service employees working while ill, but the relationship was not significant. However, food service workers that had a food worker on-call in case of staff illness were less likely to report working while experiencing vomiting or diarrhea.

Recommendations

1. Ensure sick food workers stay home and consider use of paid sick leave and on-call staffing to support compliance.
2. Promote a culture that supports systems to cover absences due to staff illness to allow food workers to stay home when ill.

Adverse impacts

The findings suggest no adverse impacts in regards to the spread of infectious diseases.

2. Domestic Violence, Sexual Assault, and Stalking

Would access to paid sick leave increase the ability of victims of domestic violence, sexual assault, and stalking to access services?

Summary of findings

Nationally, victims of domestic violence, sexual assault, and stalking are losing time from work and productivity at work due to the effects of violence. Time is lost due to fear for safety and the need to access services associated with being the victim of violence. In Vermont, about 28% of victims of violence take time off from work, and 87% of the time lost from work is unpaid. The majority of victims taking time off of work are using it to access care for physical injuries, emotional and/or mental issues, and to attend court or other legal meetings or to access other support services. Service providers working with victims report that access to paid sick leave would increase the ability of victims to access services.

Recommendations

1. Ensure any legislation pertaining to paid sick leave includes coverage for those seeking services for domestic violence, sexual assault, or stalking.
2. Continue to collect robust qualitative data on how and when victims of violence use paid sick leave to access services.

3. Include the importance of paid sick leave for victims of domestic violence, sexual assault, or stalking in education around paid sick leave for employers.

Adverse impacts
The findings suggest no adverse impacts unique to victims of domestic violence.

3. Economic Productivity and Lost Wages as Health Predictors

Would paid sick leave disproportionately impact those in specific industries?

Summary of findings
Based on national data and research, those working in industries associated with client and human services (health care, child care, food service) are less likely to have access to paid sick leave than other private sector workers. In Vermont, there is access to information on paid sick leave availability based on firm size only, and those data are not necessarily representative of Vermont employers overall. However, the data in Vermont do mimic the patterns of national data. It is therefore reasonable to assume that Vermont might also mimic national patterns based on industry type. Thus, it is possible to hypothesize that a mandate to provide paid sick leave could increase access to paid leave among those workers in smaller firms, and potentially those who work in client-service industries more than those in larger firms or working in non-client-service industry sectors.

Recommendations
1. Ensure workers in client and human services (health care, child care, food service) have access to paid time off at the same rate as other Vermont workers.
2. Ensure that workers have access to paid sick leave at the same rate regardless of business size.

Adverse impacts
Discussed in next section.

How many Vermonters would gain access to paid sick leave?

Summary of findings
The Vermont Department of Labor does not calculate a number of employees who currently do not have access to paid sick leave. The reason for this is that the Fringe Benefit Study, the one survey that inquires about paid sick leave, does not have a robust enough response rate in order to be able to generalize the findings to all Vermont employers. However, it is clear that many Vermonters remain without paid sick leave; should there be a mandate to provide paid leave, Vermont would approach 100% coverage.

Recommendations
1. Add a question to the Behavioral Risk Factor Surveillance System or the Vermont Household Health Insurance Survey regarding access to paid leave. This would allow for a generalizable estimate of the number of Vermonters who lack access to paid sick leave. This

type of survey could then answer the question regarding disparities based on education income, gender, race, and employment status.

Adverse Impacts

This HIA is focused on health. There were no adverse impacts regarding health associated with implementing a paid sick leave policy. However, in order for the positive health impacts to be seen, this law must work for the employers. The review of evaluations from cities and states that have previously implemented paid sick leave policies do not show large negative impacts on employers from implementing paid sick leave policies. However, Vermont can learn from these experiences and work to mitigate any potential negative business outcomes. For that reason, this section includes a list of concerns from the employer community regarding a statewide paid sick leave policy.

There is a potential adverse impact for business owners, particularly small business owners. For those employers who do not currently provide and track leave, initial start-up costs would be incurred. In addition, some employers have to close or curtail services if employees call in sick, and so additional staffing or changes in staffing models might be needed. For child care programs, both the difficulty of managing staff absence due to illness and providing an adequate number of paid sick days given the extent of exposure to illness are inherent limitations of the current business model.

As part of the implementation of such a law, particular attention must be paid toward making sure employers not only offer paid sick leave, but also offer an employment environment that allows for employees to call in sick. The perfect example of this is that of a pediatrician who goes to work with the flu. The pediatrician might have access to paid leave, but if she or he does not go to work, then 30 patients go without care. A similar example is from the home health care workers – if they skip a day of work and there is no backup coverage, then their clients might go without critical care.

Small employers have also expressed concern with how they would create a truly flexible work environment without greatly increasing payroll costs. These concerns are important to take into consideration. The overall number of sick days used per staff member in the places where these policies have been implemented averages at three or four per year so the overall impact would be minimal, but the possibility for greater use, particularly within one business, exists and would need to be addressed.

One unintended consequence mentioned by some employers who currently offer paid sick leave to veteran staff is that they might see a decrease in their competitive edge as all employers come on board with the policy. Those who fear this outcome are those employers who value the benefits they offer employees because they experience less turnover and more employee loyalty under current conditions. Indeed, a survey the Child Care Resource conducted of Chittenden County child care facilities found that child care providers that are not-for-profit are more likely to have better benefits than for-profit facilities (including paid time off) and also have better staff retention.[36]

One employer noted:

A few weeks ago I took it upon myself to conduct a quick poll among my staff. I asked six employees if they were given a choice between five PTO (Paid Time Off) days or a raise, which they would prefer. Unanimously they said raise. I know the cost of a raise is greater than the cost of PTO, but owners I

believe would be reluctant to offer increases in wages during the first few years of this practice. The cash is still coming out of the same payroll costs.

Recommendations
Given the list of adverse impacts to businesses, the stakeholders developed a list of potential mitigation strategies.

1. Provide strong technical assistance. Businesses will need assistance in setting up and tracking sick leave for their employees and developing staffing techniques that provide flexibility to accommodate absences without greatly increasing the cost to the employer. The latter is particularly critical as the literature demonstrates that employers with on-call workers, or floating workers, were less likely to have staff come to work while sick.[19] For child care facilities, the most direct strategy to mitigate the difficulty of managing staff absence would be the availability of an adequate number of trained substitutes.

2. The legislation should provide funding and mechanism for technical assistance (see full explanation above).

3. The legislation should include a stipulation that employees be employed for a certain amount of time before they become eligible for paid sick time.

4. The legislation should include language protecting employers against fraudulent use of paid sick leave.

5. The legislation should include financial concessions for the first year of implementation for small businesses so that they can make the necessary financial adjustments.

6. The legislation should include a communication plan so that Vermonters are aware of the changes.

The stakeholder group did not support a recommendation to limit the paid sick leave policy to businesses of a certain size to reduce any adverse outcomes. Vulnerable populations work at and are affected by businesses of all sizes, and in Vermont a very large proportion of businesses are small to medium size. Excluding certain businesses in Vermont would mean denying health protections to a large proportion of Vermont workers.

Summary of Recommendations

1. Implement and enhance data surveillance systems to track any potential impact of paid sick leave.
2. Make technical assistance available to businesses that already provide paid sick leave to employees, particularly those serving vulnerable populations, to ensure all businesses have strong paid sick leave implementation.
3. Conduct a statewide communications campaign to maximize the health benefits of paid sick leave by encouraging use of paid sick leave and promoting a culture that supports staying home from work when sick.
4. Ensure any legislation pertaining to paid sick leave includes coverage for those seeking services for domestic violence, sexual assault, or stalking.

5. To ensure that workplaces create systems and cultures to support sick workers in using the paid leave and lessen impact on employers, provide comprehensive technical assistance to employers who would implement a paid sick leave policy, including: flexible staffing models, payroll systems, and appropriate use of paid sick leave.
6. Ensure any legislation pertaining to paid sick leave is inclusive of all employees to maximize health effects for Vermont's most vulnerable workers.

Monitoring

The two entities with the majority of access to data related to paid sick leave are the Vermont Department of Health and Department of Labor. As outlined in Recommendations, we recommend enhancing monitoring of indicators associated with paid sick leave to (1) deepen our understanding of the Vermont paid sick leave baseline and (2) track any changes over time, with or without a new policy. As noted in the San Francisco evaluation of paid sick leave, no evaluation currently links paid sick leave policy changes directly to health outcomes.[29]

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APPENDIX A: Stakeholder & Participant List

Facilitators

- Vermont Department of Health
  - Shayla Livingston – Division of Health Surveillance
  - Sarah Wylie – Division of Health Promotion Disease Prevention and the Vermont Public Health Association

Stakeholder List

- Vermont Department of Health
  - Heidi Klein – Director, Division of Health Surveillance
  - Kim Swartz – Director, Preventive Reproductive Health, Division of Maternal and Child Health
  - Elisabeth Wirsing – Food & Lodging Program Chief, Division of Environmental Health
  - Teri Hata – Public Health Analyst, Research & Statistics Section, Division of Health Surveillance
  - Peggy Brozicevic – Research & Statistics Chief, Division of Health Surveillance
- Cary Brown – Executive Director, Vermont Commission on Women
- Matt Birong – Three Squares Café
- Tanya LaChappelle – Robin's Nest Child Care Center
- Diane Kirson-Glitman – School Nurse
- Sarah Mele – School Nurse
- Holly Amoth – Visiting Nurses Association of Vermont/Vermont Assembly of Home and Hospice Agencies

Participant List

- Stephanie Winters – Vermont Medical Society
- Vermont Department of Labor[1]
  - Mathew Barewicz - Economic & Labor Market Information Chief
  - Dirk Anderson – General Counsel
- Elizabeth Meyer – Child Care Resource
- Catherine Davis – Chamber of Commerce, Lake Champlain Chapter
- Matt McMahon – Vermont Health Care Association

[1] The Vermont Department of Labor's Economic & Labor Market Information Division participated in conference calls but is not considered a stakeholder. Their role was limited to technical expertise related to the availability of employer provided fringe benefit data and like data concepts. The Economic & Labor Market Information Division provided no assistance in researching health impact data and did not contribute to the recommendations of this report.

APPENDIX B: Cost Savings for Prevention of Avoidable Hospital Stays

Estimated Cost Savings per Percentage Reduction in Avoidable Hospital Stays
Vermont, 2012

Yearly Cost Savings per Percentage Reduction in Number of Avoidable Stays*					
	10%	20%	30%	40%	50%
State Total	$3,732,879	$7,465,759	$11,198,638	$14,931,517	$18,664,397
Measure for acute condition:					
	10%	20%	30%	40%	50%
State Total	$3,117,307	$6,234,614	$9,351,921	$12,469,228	$15,586,534
Chronic and Acute Conditions Combined:					
	10%	20%	30%	40%	50%
State Total	$6,850,186	$13,700,372	$20,550,559	$27,400,745	$34,250,931

*Avoidable Hospital Stays: How often patients are admitted to a hospital for problems that could have been treated outside the hospital when they were less risky.

Source: Hospital Compare data, May 2014 (http://www.ahrq.gov/professionals/systems/monahrq/data/index.html) MONAHRQ. [8]

Measure:
Yearly cost savings per 10 percent reduction in the number of potentially avoidable hospitalizations for Vermonters who used Vermont hospitals in 2012.

This is consistent with the Agency for Healthcare Research and Quality (AHRQ)'s definition of "Avoidable hospital stays":

> "The Prevention Quality Indicators (PQIs) are part of a set of AHRQ Quality Indicators (QIs) developed initially by investigators at Stanford University and the University of California under a contract with AHRQ. The PQIs are a set of measures that can be used with hospital inpatient discharge data to identify quality of care for "ambulatory care-sensitive conditions." These are conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. PQI rates can also be affected by other factors, such as disease prevalence. In this report, only observed rates are used, not the risk-adjusted rates (i.e., for age and gender) which are used for area comparisons. The PQIs have been approved by the National Quality Forum and are maintained and updated by Batelle, Inc. under contract to AHRQ."[9]

The Prevention Quality Indicators used were:

- Acute health problems (Prevention Quality Indicators # 10, 11, 12)

- Chronic health problems (Prevention Quality Indicators #1, 3, 5, 7, 8, 13, 14, 15, 16)
- Both combined

Methods:

- Specifications: includes only Vermont residents who used Vermont hospitals, 18 years and older with the following important notations
    - For COPD or Asthma in Older Adults (Prevention Quality Indicator#5) - this measure includes ages 40 years and older
    - For Asthma in Younger Adults (Prevention Quality Indicator#15) - this measure includes ages 18 to 39 years
    - Excludes any out-of-state residents who used Vermont hospitals
    - Excludes any Vermonters who used out-of-state hospitals
- Software used:
    - AHRQ QI Version 4.5 - The AHRQ QI software was used to process the Vermont Uniform Hospital Discharge Data Set so that it is in a format readable by MONAHRQ.

MONHARQ Version 5.0 - MONAHRQ v.5.0 was then used to perform cost savings analysis. MONAHRQ® is a desktop software tool from the Agency for Healthcare Research and Quality (AHRQ) that enables organizations to quickly and easily generate a health care reports.

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