

Executive Summary: Health Impact Review of HB 1356

Establishing Minimum Standards for Sick and Safe Leave From Employment

Evidence indicates that HB 1356 has potential to improve financial security; decrease the transmission of communicable disease; improve health outcomes; and to decrease health disparities by income, educational attainment, race/ethnicity, and geography.

BILL INFORMATION

Sponsors: Representatives Jinkins, Riccelli, S. Hunt, Farrell, Stanford, McBride, Cody, Tharinger, Goodman, Ortiz-Self, Sullivan, Bergquist, Pettigrew, Dunshee, Fitzgibbon, Peterson, Moscoso, Ryu, Appleton, Sells, Pollet, Robinson, Reykdal, Walkinshaw, Senn, Wylie, Ormsby, Lytton, Moeller, Kagi, Hansen, Hudgins, Tarleton, Sawyer, Fey, Gregerson, Gregory, Van De Wege, Kilduff, Blake, Kirby, Orwall, Clibborn

Summary of Bill:

- Requires employers with five or more full-time equivalent employees to provide paid sick and safe leave to employees.
- Provides that employees can take paid sick leave to care for their own health or preventative care needs or those of specific family members.
- Provides that an employee can take paid safe leave due to 1) closure of the employee's place of business or a child's school or childcare due to a public health emergency or 2) for reasons permitted under RCW 49.76.030, which allows unpaid leave for purposes related to domestic violence, sexual assault, and stalking.

HEALTH IMPACT REVIEW

Summary of Findings:

This health impact review found the following evidence regarding the provisions in HB 1356:

- Strong evidence that policies requiring businesses to offer leave benefits to their employees lead to an increase in the number of businesses that offer these benefits.
- Very strong evidence that employees use paid sick days to care for themselves and family members when they have this benefit available.
- Very strong evidence that when employees and their families stay home from work, school, or daycare when sick, there are decreases in the transmission of communicable disease.
- Strong evidence that taking paid time off to care for oneself or a family member is associated with improved health outcomes for employees and their families.
- Strong evidence that paid sick and safe leave benefits improve financial security for employees and their families
- Very strong evidence that economic stability and increased income are associated with improved health outcomes.
- Very strong evidence that improved health outcomes for employees newly eligible for paid sick and safe leave under HB 1356 would lead to decreased health disparities.

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Health Impact Review of HB 1356

Establishing Minimum Standards for Sick and Safe Leave From Employment

March 30, 2015

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Introduction and Methods

A health impact review is an analysis of how a proposed legislative or budgetary change will likely impact health and health disparities in Washington state ([RCW 43.20.285](#)). For the purpose of this review ‘health disparities’ have been defined as the differences in disease, death, and other adverse health conditions that exist between populations ([RCW 43.20.270](#)). This document provides summaries of the evidence analyzed by State Board of Health staff during the health impact review of House Bill 1356 ([HB 1356](#)).

Staff analyzed the content of HB 1356 and created a logic model depicting possible pathways leading from the provisions of the bill to health outcomes. We conducted objective reviews of the literature for each pathway using databases including PubMed and Google Scholar. Several Health Impact Assessments (HIA) have been conducted on paid sick leave policies. This review references HIAs that have been conducted by reputable entities and that include extensive reference lists. We scrutinized the validity and robustness of each reference in these HIAs that related to our research questions in order to rank the strength-of-evidence using our standard criteria which requires analysis of the primary research article or data source. We supplemented these HIAs with additional reports and peer reviewed literature.

The following pages provide a detailed analysis of the bill including the logic model, summaries of evidence, and annotated references. The logic model is presented both in text and through a flowchart (Figure 1). The logic model includes information on the strength of the evidence for each relationship. The strength-of-evidence has been defined using the following criteria:

- **Not well researched:** the literature review yielded few if any studies or only yielded studies that were poorly designed or executed or had high risk of bias.
- **A fair amount of evidence:** the literature review yielded several studies supporting the association, but a large body of evidence was not established; or the review yielded a large body of evidence but findings were inconsistent with only a slightly larger percent of the studies supporting the association; or the research did not incorporate the most robust study designs or execution or had a higher than average risk of bias.
- **Strong evidence:** the literature review yielded a large body of evidence on the relationship (a vast majority of which supported the association) but the body of evidence did contain some contradictory findings or studies that did not incorporate the most robust study designs or execution or had a higher than average risk of bias; or there were too few studies to reach the rigor of ‘very strong evidence’; or some combination of these.
- **Very strong evidence:** the literature review yielded a very large body of robust evidence supporting the association with few if any contradictory findings. The evidence indicates that the scientific community largely accepts the existence of the association.

Staff made modifications to these criteria at the start of the 2015 legislative session beginning January 12, 2015. Therefore strength-of-evidence rankings may not be comparable between reviews completed before and those completed after this date.

This review was subject to time constraints, which influenced the scope of work for this review. The annotated references are only a representation of the evidence and provide examples of current research. In some cases only a few reports or review articles are referenced. One article or report may cite or provide analysis of dozens of other articles. Therefore the number of references included in the bibliography does not necessarily reflect the strength-of-evidence. In addition, some articles provide evidence for more than one research question so they are referenced multiple times.

Analysis of HB 1356 and the Scientific Evidence

Summary of HB 1356

- Requires employers with five or more full-time equivalent employees to provide paid sick and safe leave to employees.
- Provides that employees can take paid sick leave to care for their own health or preventative care needs or those of specific family members.
- Provides that an employee can take paid safe leave due to 1) closure of the employee's place of business or a child's school or childcare due to a public health emergency or 2) for reasons permitted under RCW 49.76.030, which allows unpaid leave for purposes related to domestic violence, sexual assault, and stalking.

Health impact of HB 1356

Evidence indicates that HB 1356 has potential to improve financial security; decrease the transmission of communicable disease; improve health outcomes; and to decrease health disparities by income, educational attainment, race/ethnicity, and geography.

Pathways to health impacts

The potential pathways leading from the provisions of HB 1356 to decreased health disparities are depicted in Figure 1. There is strong evidence that policies requiring businesses to offer leave benefits to their employees lead to an increase in the number of business that offer these benefits,¹⁻⁵ and very strong evidence that employees use sick days to care for themselves and family members when they have this benefit available.^{1,3,4,6,7} There is very strong evidence that when employees and their families stay home from work, school, or daycare when sick, there are decreases in transmission of communicable disease.^{1,3,6,8} In addition, there is strong evidence that taking paid time off to care for oneself or a family member is associated with improved health outcomes for employees and their families.^{3,5,6,9} There is strong evidence that paid sick and safe leave benefits improve financial security for employees and their families,⁵⁻⁷ which is in turn associated with improved health outcomes.¹⁰⁻¹⁷ There is very strong evidence that improved health outcomes for employees newly eligible for paid sick and safe leave under HB 1356 would lead to decreased health disparities.^{3,5,6,8,10,11,13-27} Low-income workers, individuals living in rural communities, people of color, workers with lower levels of educational attainment, and those without health insurance are less likely to have paid sick leave benefits than their counterparts.^{3,5,6,8} These populations are also more likely to experience health disparities.^{11,13-27}

Logic Model

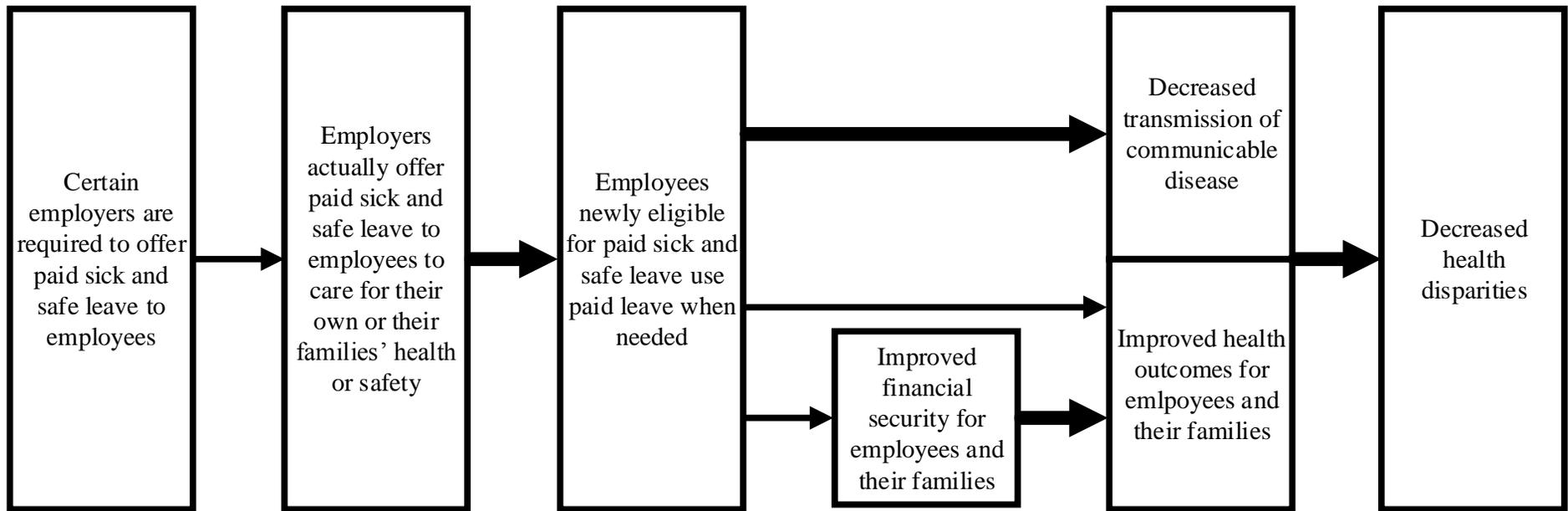
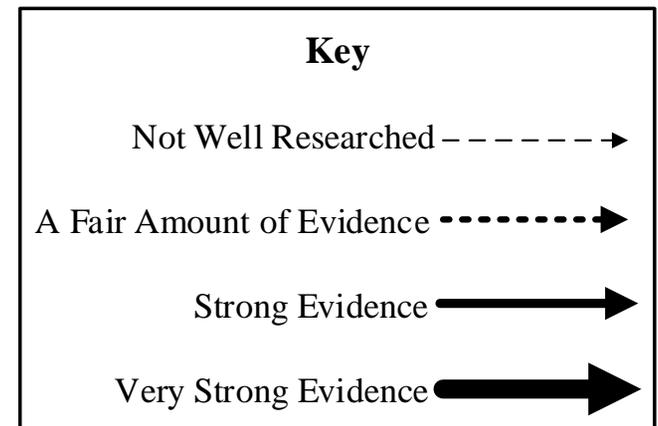


Figure 1
Establishing Minimum Standards for Sick and Safe Leave From Employment
HB 1356



Summaries of Findings

Will a state policy requiring certain employers to offer paid sick and safe leave lead to an increase in the number of employers who actually offer paid sick and safe leave?

There is strong evidence that policies requiring businesses to offer leave benefits to their employees lead to an increase in the number of businesses that offer these benefits.¹⁻⁵ Three evaluations have been conducted on paid sick leave policies in the United States, all of which have found that more businesses offered paid leave following implementation of the policy.¹⁻⁴ This body of evidence specific to paid sick leave is supplemented by a larger body of research which has found that employers are likely to change their policies to be in compliance with wage and benefit laws such as the Family and Medical Leave (FMLA) Act.⁵ This evidence does not indicate that all employers comply with labor laws, but it does show that the number of employers offering leave benefits increases following implementation of these policies.

Will employees use paid sick and safe leave benefits when needed?

There is very strong evidence that employees use paid sick days to care for themselves and their family members when they have this benefit available.^{1,3,4,6,7} Evidence shows that workers are more likely to stay home when they or a family member is sick if they have access to paid leave.^{2,6,7} In qualitative studies large percentages of employees have reported that they went to work sick because they could not afford to take the day off without pay.^{4,6} The three evaluations of the paid sick leave policies in the United States found that workers reported using paid sick days when they needed them—and the Connecticut evaluation found that employers reported an increase in the number of workers using sick leave and a reduction in the number of workers who came to work sick following implementation of the statewide paid sick leave policy.^{1,2,4} It is important to note that there are other barriers that prevent employees from staying home when sick, such as a work culture that discourages this, fear of employer retribution despite protections afforded by the law, and loss of tips which are not covered by HB 1356.⁶ This indicates that HB 1356 will not remove all barriers to staying home when needed, but the evidence indicates that it will remove one major barrier—wage loss.

If employees use paid sick and safe leave benefits when needed, will this lead to a decrease in transmission of communicable disease?

There is very strong evidence that when employees and their families stay home from work, school, or daycare when sick, there are decreases in transmission of communicable disease.^{1,3,6,8} The scientific literature has traced numerous outbreaks in food service settings back to employees who went to work sick. For example, one review article identified 72 articles linking food service workers to 81 different outbreaks involving 16 different pathogens.⁶ Within this body of literature there are also a subset of publications which have found a direct association between access to paid sick leave benefits and decreased transmission of communicable disease in the workplace.^{1,3}

If employees use paid sick and safe leave benefits when needed, will this lead to improved health outcomes for these employees and their families?

There is strong evidence that taking paid time off to care for oneself or a family member is associated with improved health outcomes for employees and their families.^{3,5,6,9} Qualitative and quantitative data indicate that when employees take time off of work to recover when ill they recover more quickly and when they attempt to work through illness their symptoms can be exacerbated.⁶ Parents report positive effects of leave on their child's physical and emotional health as well as their own emotional health when they take time off to care for their sick child—a trend that is stronger among parents who receive full pay during their leave. Access to paid sick leave is also associated with decreased on-the-job injuries, and more well-child visits, cancer screenings and other preventative health care services.^{3,6}

At least two studies conducted with domestic violence (DV) service providers (including interviews conducted with DV service providers in Seattle following implementation of the Seattle Paid Sick and Safe Time Ordinance) found that these service providers indicated that access to paid sick and safe leave would help protect DV survivors and allow them to access needed services.^{3,9} The interviews with DV service providers in Seattle indicate that awareness of the Seattle Ordinance was still low among these providers and likely their clients six months after implementation of the policy.⁹ This indicates that in order for a statewide policy to positively impact DV survivors it is important that these individuals and providers that serve them are aware of the policy.

If employees use paid sick and safe leave benefits when needed, will this lead to improved financial stability for these employees and their families?

Assuming, based on the evidence outlined above, that a paid sick and safe leave policy in Washington will lead to more employers offering this benefit and more employees using this benefit, there are two main scenarios: 1) employees that would have gone to work because of financial need will take advantage of paid leave benefits, or 2) employees that would have stayed home and lost wages will still stay home but will be protected from wage loss. In this second scenario, paid sick and safe leave leads to improved financial security for these employees and their families.

There is strong evidence that paid sick and safe leave benefits improve financial security for employee and their families.⁵⁻⁷ Employees consistently report that they did not take needed sick or safe leave because they did not have access to paid leave and could not afford the missed wages. Employees that have taken unpaid leave report that this led to financial hardship such as being unable to pay a bill, pay rent, or afford food, while those who were able to take paid leave were significantly less likely to report these financial hardships.⁵⁻⁷

Will improved financial security for employees and their families lead to improved health outcomes?

There is very strong evidence that economic instability and low-income are associated with adverse health outcomes. Research highlights the relationship between economic instability/low socioeconomic position and, for example, depression, acute and recurring infections, poor health-status, higher body mass index (BMI), and poor oral health.^{10-17,27} Data indicate that this correlation between low income and poor health is found in Washington state.^{11,13,17} Financial

stress in itself is also associated with adverse outcomes for families such as problem behavior in adolescents, interparental conflict, and parental depression.¹⁰

Will improved health outcomes for employees newly eligible for paid sick and safe leave under HB 1356 lead to decreased health disparities?

There is very strong evidence that improved health outcomes for employees newly eligible for paid sick and safe leave under HB 1356 would lead to decreased health disparities.^{3,5,6,8,10,11,13-27} Evidence shows that not all populations currently have equal access to paid leave benefits. Low-income workers, individuals in rural communities, people of color, workers with lower levels of educational attainment, and those without health insurance are less likely to have paid sick leave benefits than their counterparts.^{3,5,6,8} These populations are also more likely to experience health disparities.^{11,13-27} Low-income workers are also more likely than their counterparts to report that they would face substantial financial hardship if they stayed home when sick.³ Financial stress has been shown to have a stronger detrimental impact on the mental health of mothers with low-incomes than on mothers in higher income families.¹⁰ Improving health outcomes for these communities by increasing access to paid sick and safe leave therefore has potential to decrease health disparities.

This bill may not guarantee sick and safe leave benefits for workers who are undocumented, are paid under the table, frequently change jobs, or do seasonal work that prevents them from accumulating enough hours to access their sick and safe leave benefits.⁹ These workers will likely not experience the direct positive impacts of HB 1356, although they may indirectly benefit if communicable disease transmission rates decrease.

Other considerations

We pursued a number of other research questions in order to determine if there are alternate pathways leading from the provisions in the bill to positive or negative health impacts. We ultimately did not include these pathways in the logic model on page three of this review because there was insufficient evidence to determine if the connections exist. We evaluated the evidence on the impacts of paid sick leave policies on aspects of business such as profits as well as impacts to employees such as wages and benefits. These connections are not well researched, and the research that does exist is conflicting. One critique of existing paid sick leave evaluations is that these studies did not focus specifically on the impact of required paid sick leave on employers who offered no sick leave benefits before the law was enacted. Many employers already offered sick leave benefits before these laws were passed. It is reasonable to assume that these policies would affect employers differently depending on if they already had a sick and safe leave benefit. We were not able to identify any studies that addressed this issue.

While the three U.S. evaluations of paid sick and safe leave policies have found that a large majority of surveyed employers support the policies and report that policies had small or negligible impacts on their business, a small minority of employers have reported that they have lost profits, raised prices, reduced employee pay raises or bonuses, decreased vacation time, or reduced employee hours in response to these policies. These evaluations found that employees generally did not use all of their available paid leave and employers in Seattle reported that

employees had used fewer paid leave days than they had expected.¹⁻⁴ Anecdotal evidence from Seattle following implementation of the Seattle Paid Sick and Safe Time Ordinance indicates that the cost of providing leave was on average four tenths of one percent of total revenue.⁴

The Seattle evaluation also found that the number of employers (businesses) actually grew significantly more in Seattle than the comparison cities (Tacoma, Everett, and Bellevue) after implementation of the ordinance, and there was no significant difference in job growth between Seattle and the comparison cities. Seattle did experience significantly slower wage growth than the comparison cities, however this trend also existed for businesses that were too small to be subjected to the ordinance, indicating that a separate factor may have contributed to this slower wage growth. In addition, wages among the Food and Accommodation sector (the sector most impacted by the ordinance) actually grew at a significantly faster rate in Seattle than in the comparison cities.⁴

These evaluations have also not been able to evaluate potential cost savings or increased productivity associated with decreased transmission of communicable disease among staff, making employers' initial impressions of costs associated with the ordinance incomplete.

There has also been concern that employees may abuse sick and safe leave benefits and use this leave for reasons other than those allowed under the law. This concern has not been substantiated by the evidence. The San Francisco evaluation found that the typical employee used far less than the number of paid leave days allowable under the city ordinance. Employees in San Francisco who reported that they had used paid leave in the past year indicate that they used leave when they or a family member was sick or needed to go to the doctor or dentist.² The Seattle evaluation found that employers reported that their staff used fewer leave days than they had expected; and only a small number of employers reported reprimanding workers for abuse of leave.⁴ In Connecticut the vast majority of employers reported that employees were not abusing sick leave.¹

Annotated References

1. Applebaum E. MR, Elliott L., Kroeger T. *Good for Business? Connecticut's Paid Sick Leave Law*. Center for Economic Policy Research, New York, NY;2014.

Connecticut's paid sick leave law went into effect in January 1,2012. The law required employers of 50 or more to provide 1 hour of paid leave per every 40 hours of work that may be accessed by the employee after they have worked 680 hours. Per-diem and temporary workers are exempt from the law but most part-time workers in retail and the service industry were covered. In this analysis the authors conducted a stratified random sample survey of Connecticut business owners with 50 or more employees in industries covered by the paid sick leave law. Responses were weighted to be representative of the size of the establishment being surveyed. Of the 251 employers surveyed 88.5% provided at least 5 days of paid leave that could be used to cover illness to some or all of their employees. After the law took effect 93.7% of those surveyed offered paid leave for illness. The report found modest to no impact on businesses in the state, with 46.8% reporting no cost increases occurred as a result of the law, and 30% of businesses reporting cost increases of 2% or less. The majority of employers reported no abuse of sick leave days (83.6%). Many employers reported improved staff morale (29.6%), reductions of the spread of illness in the work place (14.4%), reductions in the number of employees who come to work sick (18%), and an increase in the number of employees using sick leave (33%). Employers reported small to moderate effects on business operations and costs associated with the law and a year and a half after the passage of the legislation 75% of those surveyed were supportive of the policy. Among firms reporting cost increases as a result of the policy virtually none of them reduced employee wages (1.0%), few reduced employee hours (10.6%) or increased costs to consumers (15.5%).

2. Drago R, Lovell V. *San Francisco's Paid Sick Leave Ordinance: Outcomes for Employers and Employees*. Institute for Women's Policy Research;2011.

The Institute for Women's Policy Research conducted an evaluation of San Francisco's Paid Sick Leave Ordinance. The authors conducted telephone surveys with 1,194 employees (response rate not noted) in San Francisco in January and February of 2010, about 3 years after implementation of the ordinance. They also interviewed 727 employers in July through December of 2009 (response rate 19%). The evaluation found that while workers were allowed either 5 or 9 paid sick days under the law, the "median worker" used only three paid sick days during the previous year, and 25% of the workers with access to paid leave used zero sick days in the previous year. Over half of surveyed employees reported benefiting from the Ordinance (i.e. employer became supportive of paid sick days, they received more paid sick days, or they were better able to care for themselves or their families). Nearly 35% of employees who had direct contact with customers reported that their employers were more supportive of workers using paid sick days as a result of the ordinance. Over 13% of workers with direct public contact reported that the law reduced the number of sick workers coming to work—however employees with direct public contact were still more likely than other workers to report going to work sick. Black, Latino, and low-wage workers were most likely to report benefiting from the ordinance but were also the most likely to report employer non-compliance. About one-sixth of employers were not in compliance with the law at the time of the employer surveys. Parents with paid sick days were 20% less likely than parents without paid leave to send a child to school when sick with a communicable disease (statistical significance not reported). Four-fifths of workers who

took paid sick leave in the previous year reported that they took leave to care for their own health needs with the rest reporting that they took time off to care for a sick child. One-third reported using leave to visit a doctor or dentist. About 32% of employees reported that employers increased work demands, reduced work hours, or reduced compensation or benefits in response to the ordinance. The employer survey showed that about 14% of employers reported that the ordinance had a negative impact on their profitability. One-third of surveyed employers indicated that they had made some change to their sick leave policy (i.e. implemented a policy, increased the number of days available, expanded coverage to more of their workforce). Two-thirds of employers supported the ordinance with one-third of employers being very supportive. The authors did not note if there were differences in these measures (e.g. support of the policy, reports of changing benefits, etc.) between employers who had made changes to comply with the ordinance and those that had already had paid leave policies in place.

3. Livingston SW, S; et al. *A Health Impact Assessment of Paid Sick Leave in Vermont*. Vermont Department of Public Health;2015.

The Vermont Department of Public Health and stakeholders conducted a Health Impact Assessment (HIA) to analyze the likely health effects of a statewide paid sick leave policy. Engaged stakeholders included a diverse group including businesses, service providers, schools, physicians, and child care providers. The authors found that this leave policy would increase access to paid leave particularly among low wage workers, part-time workers, and those employed by small businesses. One study found that those without paid leave in the U.S. were 5 times more likely to report that they would lose their job or business if they stayed home, and lower income individuals were more likely to report that they would experience substantial financial problems if they stayed home when sick. A U.S. survey found that black and Spanish-speaking Hispanic workers were more vulnerable to H1N1 transmission than white workers because these workers often lacked paid sick leave, relied on public transit, and had fewer options for childcare distanced from other children. Food preparation workers and personal care workers are also among the least likely to have access to paid sick leave. Rural workers are also less likely to have access to paid sick leave than their urban counterparts. The authors also found strong evidence that paid leave would decrease the spread of infectious disease (i.e. influenza and gastrointestinal illness) and some evidence that this would be pronounced in child care, elder care, and food service settings. The authors cite evidence that sick leave could decrease flu transmission in the workplace by 5.9% and that a lack of universal sick leave in the United States was estimated to have caused 7 million coworkers to be infected with influenza in the 2009 H1N1 pandemic. In non-pandemic years lack of sick leave has been estimated to result in an additional 5 million cases of influenza-like illness. Another publication found that 12% of surveyed food service employees work when vomiting or sick with diarrhea. These workers were less likely to report working when sick if they had access to paid sick leave, but this did not reach statistical significance. The authors also cite evidence that 70% of norovirus outbreaks for which investigators have reported the source of contamination were caused by infected food workers. The authors cite evidence that slowing the spread of disease can have positive impacts on business through mitigating lost productivity associated with employees working while sick and infecting their coworkers and customers. They also cite a study which found that, after controlling for confounding factors, individuals with paid sick leave were less likely than their counterparts to be injured on the job. They also found some evidence that paid leave would likely increase access to services for survivors of domestic violence and increase their ability to

maintain employment. The authors sent an informal, online survey to 14 domestic and sexual violence programs in Vermont in December of 2014 and found that less than 25% of employed DV survivors had access to sick or safe leave and that access to paid leave would increase survivors' ability to access services. Because an HIA had been conducted in 2009 on national paid sick leave legislation, the authors summarized this HIA and included any new research that had been published since 2009. The authors note that while past HIAs have predicted that paid sick leave would decrease the costs of avoidable hospitalization, limited research has been done on this relationship. If avoidable hospitalizations decreased as a result of paid leave, this could have a substantive impact on decreasing costs to the state. The authors cite evidence from three evaluations of paid sick leave policies (Seattle, San Francisco, and Connecticut). The 2009 evaluation of San Francisco's policy found that the proportion of employers with sick leave policies increased from 73% to 91% following the ordinance. The evaluation authors estimated that only 9% of employers were not in compliance. These three evaluations found that these policies were associated with fewer workers showing up to work sick, an increase in employee morale, and over 70% employer support of the policy. Some employers did report that they had increased the prices of goods or services or reduced benefits in other areas if they increased sick leave. The HIA authors note that these three evaluations found that the majority of employees and employers supported the law, access to paid sick leave was expanded, and a minority of the employers reported decreasing wages or other benefits, or decreased profits. All three evaluations also found that part-time employees or employees of small businesses benefited the most from the policy.

4. Romich J, Bignell W, Brazg T, Johnson C, Morton J, Song C. *Implementation and Early Outcomes of the City of Seattle Paid Sick and Safe Time Ordinance: Final Report.* University of Washington. Prepared for: City of Seattle--Office of City Auditor;2014.

Romich et al. evaluated the City of Seattle Paid Sick and Safe Time Ordinance which passed in September 2011 and became effective on September 1, 2012. The authors: 1) conducted two surveys of over 300 randomly sampled employers who were subject to the ordinance, 2) conducted over 80 interviews with employers and workers (recruited through random, snowball, and convenience sampling) and, 3) analyzed confidential employment data from the State of Washington Employment Security Department. The employer surveys were conducted July through October 2012 (baseline, response rate 63%) and September through November 2013 (follow-up, response rate 79%). They found that one year after implementation of the ordinance 83% of surveyed employers were aware of the ordinance by the end of the first year (a rate that had increased since implementation). The authors indicate that the ordinance applied to about 11,000 employers when it took effect. This evaluation cites data indicating that in the United States, 22% of full-time and 74% of part-time workers lacked paid sick leave in 2013. There was an increase in the number of employers offering leave at one-year post implementation with the greatest increase in the percent of employers offering paid leave among the Food and Accommodation sector which saw an increase from 14% to 75% of employers. Thirty-four percent of employers reported that they had expanded their policies to include safe leave and employers who implemented new leave policies may also have included safe time. Ninety-six percent of employers with full time workers offered leave to these workers, 62% of those with part-time workers offered leave to those workers, and 26% of employers with seasonal or temporary workers offered leave to these employees. Seventy-six percent of employers provided sufficient paid leave to full-time employees, with large employers being the least likely to offer

adequate leave. Employers of seasonal and temporary workers only have to provide sick and safe leave for workers after they have worked for 180 days, so many of these workers may not qualify for leave under the ordinance. Thirty-nine percent of surveyed employers reported that they did not cover part- and full-time workers or were not providing the minimum required leave hours for full-time workers. The authors found that the majority of employers reported no issues in implementing the new policy, while 32% had brief difficulties with administrative tasks. There is no evidence that the ordinance caused employers to go out of business. The vast majority (~90%) of employers reported that the policy had no effect on customer service, employee morale, or number of sick employees on the job. The number of employers actually grew significantly more in Seattle than the comparison cities (Tacoma, Everett, and Bellevue) after implementation of the ordinance, and there was no significant difference in job growth between Seattle and the comparison cities. Seattle did experience significantly slower wage growth than the comparison cities, however this trend also existed for businesses that were too small to be subjected to the ordinance, indicating that a separate factor may have contributed to this slower wage growth. In addition, wages among the Food and Accommodation sector (the sector most impacted by the ordinance) actually grew at a significantly faster rate in Seattle than in the comparison cities. Seventeen percent of surveyed employers felt that the ordinance had made them less profitable. When asked if they had made other changes to comply with the ordinance: 2.7% of businesses indicated that they had reduced the number of Seattle employees or moved employees out of Seattle, 5.3% indicated that they had decreased vacation time, 6.4% indicated that they had reduced employee pay raises or bonuses, and 8.2% reported that they had raised prices or past the cost on to customers. Anecdotal evidence indicates that the cost of providing leave was four tenths of one percent of total revenue. Of the employers surveyed, businesses owned by women, people of color, or immigrants were less likely than average to be subjected to the ordinance. Seventy percent of surveyed employers supported the ordinance. Nearly three quarters of employers reported that one or more of their employees had taken paid leave, but only 10 employers (8%) reported reprimanding workers for abuse of leave. Most employers interviewed indicated that workers used far less paid leave than they had expected and indicated that the impact of the ordinance was “small or negligible.” The authors learned from interviews with 33 Seattle workers that 15 of these workers were unaware of the ordinance before being interviewed. Nineteen of these workers had not received paid leave prior to the ordinance, 12 of whom reported that they still did not have access to leave after the ordinance was implemented. Ten of the 16 workers interviewed in Wave 2 (12 months after implementation) reported that they still did not have access to paid leave. The employees interviewed expressed that the policy was appreciated and allowed them to take time off to care for themselves or their family and believed that it would have positive impacts on health and their ability to care for their family. These workers cited access to paid leave as one factor that they take into consideration when deciding whether or not to stay home when sick.

5. Waldfogel J. Family and medical leave: Evidence from the 2000 surveys. *Monthly Labor Review*. 2001;124(9).

Waldfogel cites two past surveys (conducted in 1995), two years after enactment of the Family and Medical Leave Act (FMLA) which found that the Act led to increased FMLA benefits for employees. Two-thirds of covered establishments reported changing their leave policies to comply with the law and covered businesses were more likely than their counterparts to offer FMLA. These surveys did show that 41.9% of employees had not heard of the law. Many

employees who needed leave but did not take it indicated that this was because they could not afford to take unpaid leave. The author notes that several other studies of FMLA have found that family leave coverage increased following passage of the Act. Waldfogel analyzed 2000 Survey of Employees data (n=2,558 employees) and 2000 Survey of Establishments data (n=1,839 private businesses) to determine impacts of the Act seven years after implementation. The surveys showed that while only 33.5% of businesses not covered by the law offered FMLA benefits, 83.7% of those covered by the law did. The author found that while awareness of the law had increased since 1995 not all employees were aware of the law or if they were covered in 2000. About 16% of employees had taken leave for a family or medical reason in the 18 months prior to the survey (similar to the findings from the 1995 survey). The authors found that while a significantly smaller percentage of respondents in 2000 compared to 1995 indicated that they had needed to take leave and didn't, an inability to afford taking unpaid leave was still the most commonly cited reason for not taking leave with 77.6% of those who needed but did not take leave citing this as their reason. Large percentages of leave-takers indicated that leave had positively affected their ability to care for family members (78.9%), or their own or family members' emotional health (70.1%) or physical health (63.0%). Of those that indicated positive effects of leave, 93.5% indicated that it made it easier for them to comply with doctors' instructions and 83.7% felt that it had led to a faster recovery. Over half of leave-takers were worried that they would not have enough money to pay their bills. Women and low-income workers were less likely to have access to paid leave.

6. Cook WK, Heller J, Bhatia R, Farhang L. *A Health Impact Assessment of the Healthy Families Act of 2009*. Human Impact Partners and San Francisco Department of Public Health;2009.

The Human Impact Partners and the San Francisco Department of Public Health conducted an HIA of the Healthy Families Act of 2009. This Act would have given United States workers employed by firms with at least 15 employees access to paid sick time (1 hour for every 30 hours worked). This time could have been used to care for or seek preventive care for oneself or a family member, or to recover from or seek assistance related to domestic violence, stalking or sexual assault. The authors indicate that in 2009 nationally 48% of the workforce (about 60 million people) did not have access to paid sick time. The assessment found that the policy was “highly likely to have the following impacts:” more workers taking leave when they or a family member is sick or needs preventative care; decreased risk of communicable disease transmission (particularly in food service sectors and in long-term facilities for older adults); and decreased risk of income loss, actual job loss, and the threat of job loss for low-income workers during illness or care for dependents. The analysis also found evidence that paid sick leave could result in increased preventive care, reduced emergency room visits by workers with health insurance, and decreased transmission of communicable disease in schools and childcare facilities—but these were not as strongly supported by the evidence. The authors analyzed 2007 National Health Interview Survey (NHIS) data and found that Hispanic employees as well as those with lower incomes or lower educational attainment were less likely to have access to paid sick days than their counterparts. The authors conducted a survey with a convenience sample of California workers and found that 64% of them reported going to work sick at least once due to a lack of sufficient paid sick days. Fifty-seven percent of the respondents also reported that “calling in sick resulted in a loss of wages; 22% the loss of a job; 22% the loss of good shifts; and 32% retaliation from a supervisor or boss.” The authors conducted focus groups in California and

Milwaukee, Wisconsin and learned that not being able to afford to take time off was one barrier to staying home when sick. Other factors mentioned included guilt for abandoning their coworkers, fear their employer would see them as irresponsible, and fear of losing a good shift or the job. Participants indicated that if they miss work because they are sick they often can't pay rent or afford food. They described times when their illness had been exacerbated because they did not take sick days off to recover because they did not have access to paid sick leave. Some focus group participants mentioned that DV was triggered by wage loss as a result of missing work when sick or that employers had expressed that they would not hire parents in the future because they take too many sick days to care for their children. A survey of U.S. workers found that 42% of employed adults without sick leave went to work when ill compared to 28% of those with sick leave. One study found that parents with paid sick or vacation leave were 5.2 times as likely to care for their children when they were sick, and half of the working parents in the sample who cared for their own sick children reported that paid leave enabled them to miss work. Another publication found that among low income families: those with sick leave were much more likely to miss work to care for families (44%) than those without leave (26%). Another researcher found that among parents whose children had special healthcare needs, parents with paid leave had 2.8 times higher odds than parents without leave of taking time off work to care for their child. In the author's survey of California workers, 44% of participants with children under 18 years reported sending their child to school sick because they did not have access to paid sick days and 54% of respondents reported experiencing times when they could not care for a dependent because of a lack of paid sick days. The NHIS data analysis showed that a significantly higher percentage of working adults without sick leave (23.7%) than their counterparts (12.9%) reported having a family members who had delayed medical care or not received the care they needed. Studies also indicate that paid sick days are predictive of accessing medical care for both workers and their children. A publication projected that using 2007 population counts a severe new pandemic could infect 1,853,000 Washingtonians and result in the death of 45,000 individuals in our state. Researchers project that the attack rate of a communicable disease can be reduced by 22% if 90% of symptomatic people stay home and by 24% through voluntary social distancing. A review of scientific literature published before 1999 identified 72 articles linking food service workers to 81 different outbreaks involving 16 different pathogens.

7. Kavanagh AM, Mason KE, Bentley RJ, et al. Leave entitlements, time off work and the household financial impacts of quarantine compliance during an H1N1 outbreak. *BMC Infectious Diseases*. 2012;12.

Kavanagh et al. conducted online and telephone surveys (n=314, response rate 27%) in the state of Victoria in Australia to determine the interaction between parent's access to paid sick leave and several factors during the mandatory H1N1 home quarantine in 2009. In households in which no parent had access to paid leave, parents were less likely to take time off work than in households where parents did have access to paid leave (42% vs. 58%), however this difference did not reach statistical significance (p=0.08). Among parents who did take time off work, those without access to paid leave were more likely to lose pay (73% vs 21%, p<0.001). In 42% of households where parents lost pay, they experienced further financial harms such as not being able to pay a bill.

8. Minnesota Department of Health. *White Paper on Paid Leave and Health*. Center for Health Equity, Saint Paul, MN;2015.

This report summarizes peer reviewed literature, other health impact assessments of paid sick leave policies, and national and Minnesota state level data. They examined the evidence for paid sick leave, parental leave, maternity and paternity leave, and family leave. State level examination of data from the Minnesota Department of Health Infectious Disease Epidemiology Unit found that from 2004-2013 sick or recently sick workers were linked to 208 confirmed cases of food-borne outbreaks resulting in 2,996 documented illnesses. The most commonly spread virus was norovirus (98%), other outbreaks associated with sick or recently sick workers were salmonella, E. coli 0157, Hepatitis A, and Group A Streptococcus. They estimated that these outbreaks cost the state of Minnesota between \$1.6- \$2 million between 2004-2013. They identified other settings outside of the food service industry where person-to-person contact was the source of illness outbreaks. Child care facilities and elder care facilities were found to be the locations with the highest rates of reported person-to-person illness outbreaks and also tend to be staffed by low wage workers. From 2004-2011 the Minnesota Department of Health received 20,000 reports of illnesses confirmed or suspected to be spread person-to-person in these occupational settings. Through analysis of the US Census Bureau Labor Statistics National Compensation Survey from March 2014, they found that low wage workers in the US tend to lack access to paid sick leave. Individuals earning in the 90th percentile of US incomes had 8 times more access to paid sick leave than those earning in 10th percentile. In Minnesota they found that the majority of workers in the state in the food service industry (79%), personal care service industry (72%), and grounds and building cleaning industries (57%) did not have access to paid sick leave, yet worked in occupations where they routinely interface with the public.\

9. Morton, J. *Seeking Safety: A Study with Domestic Violence Service Providers About Seattle's Paid Sick and Safe Time Ordinance*. 2013.

Morton cites evidence indicating that one in five women in Washington reports being injured by domestic violence (DV) at some point in her lifetime and that these numbers are likely underestimations. The author also cites evidence that women are more likely to remain in abusive relationships if they are financially dependent on their abusers and that “DV has a negative impact on survivor employment and that employment is essential for individuals trying to escape unhealthy relationships.” Morton cites one study which found that about one third of surveyed DV survivors reported that they would like time off of work to deal with their issues but that they wanted to keep their experiences confidential in the workplace, while about one half of participants expressed that they wanted as much support as possible from their employer. Morton highlights current Washington statutes intended to protect survivors but indicates that these protections (such as the Domestic Violence Leave Law: RCW 49.76) may be under utilized because they do not offer monetary compensation to survivors. The aims of this report included: evaluating DV providers' knowledge of the Seattle Paid Sick and Safe Time Ordinance (about six months after implementation), determining if these providers have discussed the ordinance with their clients, and exploring ways in which these providers anticipate the ordinance will affect survivors. Morton contacted all of the DV service providers in Seattle, Washington that fit her inclusion criteria (n=12) and was able to conduct interviews with representatives from eight of these organizations (response rate 67%). Over half of the agencies interviewed primarily serve people of color. The participants highlighted the negative effects that experiencing DV has on employment and noted several needs that are specific to DV survivors and that may impact

employment or require taking days off from work: “meet with their advocates or access other social services; attend court for protection orders and family law cases; go to medical and therapy appointments; relocate and find new housing for safety purposes; arrange new childcare; and have respite to process their experiences and begin to heal.” These providers noted that not being paid when they need to take time off prevents survivors from being able to address these needs. Six of the eight interviewees were aware of the ordinance before being contacted by Morton, but only one provider had a firm understanding of the ordinance. This report highlights ways that these participants indicated information about the ordinance should be shared with DV providers. None of the providers had clients who had asked about the ordinance and five participants noted that they did not think that their clients were aware of the policy. One hundred percent of the interviewees indicated that the ordinance would be valuable in helping clients meet their needs. Four of the providers also mentioned that the policy would protect the general public by preventing the spread of communicable disease and helping raise awareness about DV. The author notes that “the respondents overwhelmingly supported the Ordinance and thought it was good for clients.” These providers did note some challenges with the policy such as the fact that it would only apply to Seattle employees, making it difficult for them to know which clients work in Seattle and qualify, that the definition of DV in the policy may be too narrow to allow survivors to take time off to meet all of their needs associated with this violence, that the ordinance may not provide enough days off for survivors to meet all of their needs, survivors would unlikely be comfortable disclosing to their employer that they were experiencing DV, and that it is unlikely that survivors would file a complaint if their employer violates the ordinance. Several participants also noted that survivors who are undocumented workers, paid under the table, or do not work consistently enough to qualify for sick and safe leave would not benefit from the ordinance. Six of the respondents expressed concerns that even with the legal protections offered by the policy, survivors may experience retaliation and other negative employment impacts as a result of using safe leave; but several respondents did note that the barriers to accessing safe leave may lessen over time.

10. Ponnet K. Financial stress, parent functioning and adolescent problem behavior: An actor-partner interdependence approach to family stress processes in low-, middle-, and high-income families. *Journal of Youth and Adolescence : A Multidisciplinary Research Publication*. 2014;43(10):1752-1769.

Ponnet cites extensive evidence on the relationship between financial hardship and emotional problems among youth and adults, family conflict, problem behavior among adolescents, and psychological distress. The author analyzed data from a subsample of two-parent families with children between 11 and 17 years of age from the Relationship between Mothers, Fathers and Children study drawn from the Dutch-speaking part of Belgium (n= 1,596 individuals from 798 families). Analysis showed that parents in low-income groups had significantly more financial stress than those in middle-income and high-income groups. The author found that the association between financial stress and problem behavior in adolescents is mediated by depressive symptoms, interparental conflict, and positive parenting. They also found that financial stress had more detrimental impacts on depressive feelings for mothers with low-incomes than for those with higher incomes.

11. Boysun M, Wasserman C. *Health of Washington State Report: Tobacco*. Washington State Department of Health;2012.

Washington state Behavioral Risk Factor Surveillance System (BRFSS) data from 2008-2010 indicate that adults with lower incomes are significantly more likely to report smoking cigarettes than their counterparts. AI/AN and black populations also have significantly higher smoking rates than white, Hispanic, and Asian populations.

12. Prause J, Dooley D, Huh J. Income volatility and psychological depression. *American Journal of Community Psychology*. 2009;43(1-2):1-2.

Prause et al. analyzed a sample (n = 4,493) from the National Longitudinal Survey of Youth. Researchers found that income volatility was significantly associated with depression; and downward volatility (frequent losses in income) was significantly associated with depression even after controlling for baseline depression. High income appeared to act as a buffer, so those with lower incomes were more vulnerable to the adverse effects of downward volatility.

13. Reed P KD, Cheng E, Kinne S. Washington State Department of Health. *Health of Washington State Report: Mortality and Life Expectancy*. 2013.

The authors present Washington state data on mortality and life expectancy. The data show that age-adjusted death rates were higher in Washington census tracts with higher poverty rates. The state data also show that self-reported health status decreases as income decreases.

14. Spencer N, Thanh TM, Louise S. Low income/socio-economic status in early childhood and physical health in later childhood/adolescence: A systematic review. *Maternal and Child Health Journal*. 2013;17(3):424-431.

Spencer et al. conducted a meta-analysis of studies examining the relationship between low socioeconomic status in the first five years of life and physical health outcomes in later childhood and adolescence. Nine studies met the researchers' strict inclusion criteria. The studies indicated significant associations between early childhood low-income status and a number of adverse health outcomes including: activity-limiting illness, parent-reported poor health status, acute and recurrent infections, increasing body mass index (BMI), dental caries, and higher rates of hospitalization.

15. Subramanyam M, Kawachi I, Berkman L, Subramanian SV. Relative deprivation in income and self-rated health in the United States. *Social Science & Medicine*. 2009;69(3):327-334.

Subramanyam et al. analyzed data from the Current Population Surveys conducted by the United States Census Bureau. Researchers found that individuals from the lowest income category were over five times more likely to report being in poor health than participants from the highest income category. In addition, they found that relative deprivation (the differences in incomes between an individual and others who have higher incomes than that individual [one measure of income inequality]) appeared to explain a large part of this association.

16. VanEenwyk J BG, Bezruchka S, Pobutky, A. Washington State Department of Health. 2013. *Health of Washington State Report: Social and Economic Determinants of Health*. 2013.

VanEenwyk et al. conducted a review of the literature on the complex relationships between the social factors that impact health. The authors found that the literature provides extensive evidence of the association between lower income and poor health outcomes.

17. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Prevalence and Trends Data: Washington-2012. 2012;

<http://apps.nccd.cdc.gov/brfss/page.asp?cat=XX&yr=2012&state=WA#XX>.

Accessed February 11, 2015. Behavioral Risk Factor Surveillance System (BRFSS) 2013 data from Washington state show significant correlations between lower income and a number of health indicators including: worse overall self-reported health, depression, asthma, oral health, tobacco use, women's health indicators, health screening rates, physical activity, and limited activity as a result of a disability. BRFSS data from 2011 show that black, AI/AN, and Hispanic respondents are significantly more likely to report fair or poor general health than white or Asian respondents. Participants who identified as multiracial also reported significantly higher rates of asthma than white and Hispanic respondents. These data also show a correlation between higher educational attainment and positive health outcomes for a number of indicators including: oral health, tobacco use, women's health indicators, health screening rates, and physical activity.

18. Washington State Department of Health. OCRH series on Rural-Urban Disparities, WA: Rural Disparities in Mortality Fact Sheet. 2010;

<http://www.doh.wa.gov/Portals/1/Documents/Pubs/346022.pdf>

Data from a Washington State Department of Health study of death certificate data from 2007-2008 found that Washingtonians living in rural areas of the state had statistically significantly higher death rates from cancer, heart disease, unintentional injuries, suicide, influenza, and liver disease than urban Washingtonians.

19. Washington State Department of Health. Rural Washington: Closing Health Disparities (2010 update) 2010;

<http://www.doh.wa.gov/Portals/1/Documents/Pubs/346030.pdf>

This document provides summary of the 2010 update of the Washington State Department of Health state-wide rural health assessment data. The authors found 14 health indicators for which rural areas of Washington were doing statistically significantly worse than the state average. Rural Washingtonians were found to have higher percentages of adults who were overweight, lower than average number of women who received prenatal care in the first trimester, and higher rates of children who were hospitalized due to unintentional injuries.

20. Kandel DB, Griesler PC, Schaffran C. Educational attainment and smoking among women: Risk factors and consequences for offspring. *Drug and alcohol dependence*. 2009;104:24-33.

Researchers examined United States data from four national data sets and found that, among women, lower levels of education are associated with greater risk of being a current smoker, smoking daily, smoking heavily, being nicotine dependent, starting to smoke at an early age, having higher levels of circulating cotinine (a metabolite of nicotine) per cigarettes smoked, and continuing to smoke in pregnancy. In addition, lower levels of maternal education were linked to increased risk of antisocial behavior among offspring.

21. McCarty CA, Mason WA, Kosterman R, Hawkins JD, Lengua LJ, McCauley E. Adolescent school failure predicts later depression among girls. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*. 2008;43(2):180-187.

McCarty et al. conducted a prospective longitudinal cohort study with a sample of 808 youth followed from ages 10 to 21. The researchers discovered that adolescent school ‘failure’ (meaning being suspended, expelled, or dropping out of high school early) predisposed girls to depression in early adulthood.

22. McLaren L. Socioeconomic status and obesity. *Epidemiologic Reviews*. 2007;29(1):29-48.

McLaren et al. conducted a meta-analysis exploring the relationship between obesity and SES among adults. A total of 333 studies published internationally met the inclusion criteria. In highly developed countries, the majority of the studies found higher body weights among women with lower education attainment. Nearly 50% of the studies in highly developed countries found the same relationship for men.

23. Mersky JP, Reynolds AJ. Educational success and adult health: Findings from the Chicago Longitudinal Study. *Prevention Science*. 2009;10(2):175-195.

Mersky and Reynolds analyzed data from a Chicago prospective cohort study that followed 1,539 individuals. Results indicate that high school completion was significantly and inversely associated with tobacco smoking, frequent substance use, depression, and no health insurance coverage. In addition, middle school reading performance was inversely related to depression and students' expectation to attend college was negatively associated with frequent drug use.

24. Mezuk B, Eaton WW, Golden SH, Ding Y. The influence of educational attainment on depression and risk of type 2 diabetes. *American Journal of Public Health*. 2008;98(8):1480.

Researchers analyzed adult survey data collected in the Baltimore Epidemiological Catchment Area and then conducted follow-up interviews with the survey cohort. Mezuk et al. found a statistically significant association between type 2 diabetes and lower educational attainment. In addition, the data indicate that depression was associated with type 2 diabetes, but each year of education attained decreased the risk of type 2 diabetes for those experiencing depression.

25. Skodova Z, Nagyova I, Dijk J, et al. Socioeconomic differences in psychosocial factors contributing to coronary heart disease: A review. *Journal of Clinical Psychology in Medical Settings*. 2008;15(3):204-213.

Skodova et al. conducted a meta-analysis of the literature addressing the relationships between SES, coronary heart disease (CHD), and psychosocial factors contributing to coronary heart disease. Researchers identified 12 studies that met their inclusion criteria. They found that higher levels of education are associated with lower rates of CHD, and that decreasing education is associated with factors that are linked to CHD such as depression, anxiety, hostility, and a lack of social supports.

26. Steptoe A, Hamer M, Butcher L, et al. Educational attainment but not measures of current socioeconomic circumstances are associated with leukocyte telomere length in healthy older men and women. *Brain Behavior and Immunity*. 2011;25(7):1292-1298.

Steptoe et al. analyzed data collected from 543 male and female London-based civil servants of white European origin. All participants were between the ages of 53 and 76 and healthy. Researchers looked at blood samples to determine telomere length and telomerase activity.

Telomere shortening is associated with aging. Short telomeres are also associated with increased risk of premature heart attack and mortality. Researchers found that lower educational attainment was associated with shorter telomere length after controlling for biological and behavioral covariates. This association remained significant even after adjusting for current SES. Researchers speculated that low educational attainment may be an indicator of long-term lower SES, and may be associated with accumulated stress resulting in telomere shortening. They also postulate that education may promote problem-solving skills leading to reduced responses to stress, thereby impacting aging.

27. Healthy Youth Survey. QxQ Analysis. 2012; <http://www.askhys.net/Analyzer>. Accessed March 2, 2015.

Washington Healthy Youth Survey data from 2012 indicate that Native American youth and youth of color are more likely than their white peers to report several negative health outcomes. For example these data show that 8th, 10th, and 12th grade respondents who identified as American Indian/Alaska Native, Hispanic, or "other" or who reported multiple racial/ethnic categories were significantly more likely than their white peers to report symptoms of depression. Over forty-three percent of AI/AN 10th graders (43.3% [95% CI 37.1- 49.5%]) reported feeling depressed compared to about 29% of white 10th graders (28.5% [95% CI 27.2%-29.8%]). Among 6th graders all other racial/ethnic groups were more likely than white students to report that they had contemplated suicide; however these rates were only significant for students who identified as AI/AN, Hispanic, or "other," or identified with multiple racial/ethnic groups.