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The Impact of the Affordable Care Act (ACA) on Oral Health in Low-Income Individuals

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Abstract

Most low-income families struggle with financial stability making it difficult to access the health care they need. This challenge is especially prevalent for individuals trying to seek dental care services. Low-income households with limited health insurance coverage often perceive dental care as a luxury. However, good oral health signifies good overall health and can prevent future health problems. One of the primary goals of the Affordable Care Act (ACA) was to increase dental care access for low-income individuals. The ACA was designed to expand dental coverage to be more comprehensive and decrease individuals' financial burdens. The current study uses research and scholarly review articles from the past seven years to understand whether expanding dental care coverage through the ACA leads to better oral health for low-income individuals. The study shows that because of the ACA, there is a strong correlation between low-income individuals seeking dental care and improving their oral health. Extending dental coverage by the ACA significantly decreases the financial barrier for individuals and allows them to consult with a dentist more often. In addition, routine dental visits provide patients with proper oral health knowledge. The implementation of the ACA is also decreasing the number of emergency dental visits since individuals can access dental check-ups and prevent those visits. Further research is needed to understand how enrollees are utilizing all the benefits the Act provides for. Ensuring the ACA remains in place will allow future generations access to dental care, have better oral health, and reduce the strain on emergency dental departments.

Keywords

Oral health, ACA, dental care, low-income individuals

1. Introduction

Many low-income families experience difficulties accessing health care for themselves and their family members. In some extreme cases, these individuals and their families cannot access any health care services. The most significant obstacle that challenges these individuals in health care access is financial ability. In addition, having limited health care insurance coverage makes individuals prioritize health care services. Thus, health care services not seen as necessary because individuals must pay out of pocket, are readily foregone. However, this perception can be costly as hundreds of diseases infect the mouth and can cause significant damage to the rest of the body, and ultimately lead to death (Kane, 2017). Good oral health is a strong indicator of good overall health and can prevent future medical issues (Kane, 2017). The lack of access to dental care for low-income individuals renders them helpless until a dental emergency force them to seek proper care from a dentist. To combat the lack of access and make dental care more affordable for low-income individuals, former President Barack Obama introduced the Affordable Care Act (ACA) in the United States. During his time in office, the ACA was passed, designed to create better access to health care and reduce barriers for individuals (Silberman, 2020). The ACA was planned to mainly benefit low-income individuals by expanding health care coverage and to be more comprehensive under Medicaid. The mandatory dental insurance coverage benefit guaranteed by the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) requires that the Medicaid program and the Children's Health Insurance Program (CHIP) provide comprehensive, medically necessary dental services to all children under age 21 from low-income families enrolled in Medicaid (Vujicic & Fosse, 2022). This study reviews recently published scientific papers to explore whether expanding health care coverage under Medicaid through the ACA leads to better oral health for low-income individuals and their families.

2. Method

Two main medical databases, the National Library of Medicine (PubMed), and the Journal of the American Medical Association (JAMA) were accessed for scholarly articles dealing with the ACA and dental care. In searching on both databases initially, the following phrases were used: 'Dental visits during the implementation of the ACA' and 'The ACA and how it improved oral health care'. These key phrases yielded a small number of scholarly articles, necessitating a broader search. Limiting the search phrases to 'Dental visits and ACA' and 'Oral care and ACA' led to more results. Research articles that were composed of large experimental groups and scholarly reviews published in the last seven years are included in this report. Papers that meet these criteria provided the most recent findings and insight into understanding the impact of the ACA. Articles that did not meet the criteria were not included in the report.

3. Results and Discussion

Understanding the utilization patterns of increased Medicaid dental coverage through the ACA has been explored by many researchers to understand if the resources being provided to millions of previously uninsured individuals are adequately being used.

3.1 Oral Health Outcomes

Elani et al. (2021b) sought to find out whether increased dental insurance under the ACA led to better oral health for low-income individuals in states with extended coverage. Under the ACA, dental coverage is not considered an essential health benefit through Medicaid. The dental coverage varies from state to state, from providing emergency visits only, to complete comprehensive care. This cross-sectional study focused on 7,637 low-income individuals, half of whom lived in states with expanded dental coverage through Medicaid due to the ACA; the other half lived in non-expanded dental coverage states from 2009-2018. The study noted extended dental care states as offering benefits above emergency-only visits, but no Medicaid dental coverage through the ACA in non-extended states. Indicators in states with dental coverage had an 8% increase rate in visits to the dentist, decreased tooth decay, and increased preventive measures such as flossing and brushing correctly. States without the new dental coverage had an increase in missing teeth per individual and decreased oral health care knowledge (Elani et al., 2021b).

Using data collected from the Behavioral Risk Factor Surveillance System from 2008-2018 from 32,556 low-income individuals Elani et al. (2021a) observed changes in accessing dental care in certain states (those with ACA Section 1115 waivers) which placed healthy behavior incentive programs under their state's Medicaid extension through the ACA. These states were then compared to states that expanded the Medicaid dental coverage under the ACA without the behavior incentive program. Both were then compared to states that did not expand dental coverage through Medicaid. In the study, states like Iowa, Indiana, and Michigan had healthy behavior incentive programs, while traditional increases in dental coverage were available in states like Minnesota, North Dakota, and Ohio. Other states like Nebraska, South Dakota, and Wyoming did not have added or expanded Medicaid dental coverage through the ACA. A commonality between all these states is that they are located in a similar geographical area, the mid-western region of the United States of America. The collected data showed that there was an insignificant change in dental office visits associated with the implementation of the healthy behavior program between traditional states with increased dental coverage or non-expansion states. It remains unclear why the programs did not increase the frequency of dental visits. However, traditional expansion states showed increased annual dental visits by eight-point five percent for low-income individuals when compared to non-expansion states (Elani et al., 2021a). It can be noted from this research that it is more beneficial to increase Medicaid dental coverage through the ACA alone, rather than pairing it with the healthy behavior incentive program (Elani et al., 2021a). Furthermore, this article supports the findings from Elani et al. (2021b), where a clear correlation was reported between the implementation of the ACA and increased dental office visits.

Elani et al.'s (2021b) article highlights the importance of the ACA in allowing individual access to good oral health. Furthermore, good oral health can positively impact one's academic success, salary, overall health, and well-being (Valachovic, 2018). The ACA has benefitted many Americans in accessing oral care services through the expansion of Medicaid dental coverage. However, as of 2018, there were many proposals by Congress that would aim to change the ACA and reduce the range that Medicaid would provide. The proposals by Congress would seek to do two things: to lower the amount of federal funding to the program; and to strengthen the control each state would have over the program. Increasing the power each state has over the expansion of Medicaid health coverage could lead to the state authorizing less coverage to individuals and households. Moreover, if there were a decrease in federal funding, dental coverage would be the first health benefit to be eliminated since it is not considered a priority and an essential health benefit (Valachovic, 2018). Valachovic (2018) noted that were the proposals to pass, it would have detrimental impacts on individuals that use Medicaid. In addition, Elani et al. (2021b) emphasized how vital the ACA is to low-income individuals since it is the closest the United States has come to universal health. Modifying such a law would hurt those who have limited health insurance and individuals who cannot afford more extensive private health insurance.

A new perspective was observed by Goldstein et al. (2021) in a study that focused on how the Medicaid extension in dental coverage through the ACA impacted the prevalence of oral surgery procedures in community health centers. Often, low-income individuals are unable to access the required treatment for oral health diseases. This also means that low-income individuals suffer significantly more when trying to deal with dental infections. However, the ACA introduced financial support for low-income individuals who could go to community health centers for dental care located in their area. This would ultimately lead to more revenue for the health centers, and in turn would allow for more health care resources in low-income areas (Goldstein et al., 2021). The study combined data from 2054 community health centers, half in states that expanded dental coverage, and half in non-expansion states from 2012-2017. Before the implementation of the ACA, expansion states found community health centers 13.5% less likely to provide unnecessary oral surgery services. It is unclear why these pre-expansion states were less likely to give additional oral surgery than pre-non-expansion states. After the start of the ACA, expansion states were 8.7% less likely to provide supplemental oral surgery when compared to non-expansion states (Goldstein et al., 2021). These were unexpected results from the study since it was expected that more individuals would access these community health centers for low-cost dental care. The researchers believe there are a few reasons for the unexpected results. One explanation is that the expansion-states community health centers had younger patients who did not require as extensive dental procedures compared to patients in non-expansion states. Another reason for the unexpected findings is that the expansion state's community health centers may have started prioritizing very complicated procedures to private dental offices that had the capacity, resources, and accepted Medicaid (Goldstein et al., 2021). Since individuals in non-expansion states would have no alternative dental care and could only go to community health centers, that is most likely why the use of oral surgery in community health

centers increased. Although there is no conclusive evidence in the study why fewer oral surgery procedures occurred in expansion states, it appears that the ACA produced better oral health outcomes by reducing and mitigating the number of patients who needed extensive dental care through routine dental visits. More studies are needed to elucidate this observation.

3.2 Emergency Dental Visits

Elani et al. (2020a) measured the impact of the Medicaid expansion because of the ACA on the payment source for dental visits in emergency departments. The data was retrieved from a total of 33 different state emergency departments in states that had expanded dental coverage and states that did not include expanded dental coverage. Results showed that in the states with extended dental care, the emergency dental visits were 14.1% lower than before. States that did not extend dental coverage through Medicaid had increased emergency dental visits. However, the study could not determine the payment source for emergency dental visits. The study shows that extended dental coverage under the ACA vastly lowered emergency dental visits. One reason is that most emergency dental visits are preventable through routine dental check-ups (Elani et al., 2020a). Individuals without extended dental coverage for regular dental care were only able to access emergency dental care through their insurance. Therefore, if all states expanded dental coverage through Medicaid, individuals could visit a dentist routinely and avoid emergency dental care services.

Expanding dental care insurance coverage through the ACA allows low-income individuals to seek the dental care they need while becoming more knowledgeable about good oral hygiene and avoiding unnecessary dental procedures. This concept is discussed in Salomon et al.'s study (2017), which focused on the state of Illinois restriction on Medicaid dental insurance to only cover emergency treatments. The study highlighted how restrictions placed on dental coverage would impact the volume, severity, and treatment cost for odontogenic infections. Odontogenic infections are any infections that begin in the teeth or surrounding tissue and usually cause pain. The study concluded that setting limitations on Medicaid dental coverage heightened the rate of odontogenic infections (Salomon et al., 2017). Furthermore, there was a 20% increase in cost per patient that used the emergency department and a total increased cost of $1.6 million. This is because constraints on insurance forced individuals only to visit the emergency department once the issue became urgent, which is more costly than routine dental check-ups. Eliminating basic dental coverage in Illinois illustrates the importance of accessibility and affordability in low-income families.

Laniado et al.'s study (2017) discussed how expanded Medicaid dental coverage through the ACA lowered emergency department visits in the state of Minnesota. The study consisted of reviewing emergency department patient data from 2008-2014. The results showed that there were fewer dental emergency visits in 2014 than in 2008 due to the development of increased dental benefits. One conclusion drawn from the results was that increased dental coverage allowed for more routine dental check-ups. This maintained better overall oral health and decreased the need for emergency dental visits. Furthermore, it allowed the emergency department to focus its resources on providing help and care to

patients with traumatic dental issues rather than non-urgent cases such as toothaches. The biggest benefactor of increased dental coverage was seen in young adults, ages 18-26 who had a 19.3% decrease in the number of emergency department visits (Laniado et al., 2017). This dental service expansion resulted in over three million young adults accessing dependent coverage through their parents.

In 2009, comprehensive dental care under Medicaid was removed and replaced with emergency dental care only due to a limited budget in the state of California (Singhal et al., 2015). In 2009 Congress perceived California's adult dental care as non-essential and decided that was the first place to cut costs. After the change in dental care benefits, there was an immense and quick consequence leading to increased use of emergency dental departments. The data was retrieved from the State Emergency Department Database. There were an additional 1,800 individuals utilizing the emergency dental department. Furthermore, adults of minority groups and members living in urban areas were impacted even more than other groups or regions. The average yearly dental emergency visit cost increased by 68% (Singhal et al., 2015). It can be concluded from this observation that limiting Medicaid dental coverage leads to increased costs of dental care through emergency dental departments. The data collected is also consistent with the results from Laniado et al.'s (2017) study. Both articles found that the ACA played an important role in decreasing the number of emergency dental department visits. The researchers noted that emergency departments do not have the resources to provide definitive dental care and remove the support for crucial dental trauma cases (Singhal et al., 2015). Instead, those non-urgent dental problems are better suited to be treated in a dental office, and with regular dental visits, many of these cases would decrease.

Rampa et al.'s (2019) study had new insights not previously reported in the other studies in that it focused on a retrospective observational analysis on emergency department visits and periapical abscesses. A periapical abscess is a large amount of pus or fluid at the bottom root of a tooth that causes pain and is most likely caused by an infection. The report used the Nationwide Emergency Department Sample from 2008-2014, in which all emergency department cases with periapical abscesses were analyzed. The study reported a total of 3,505,633 emergency department visits nationwide for periapical abscesses. Of this total, the number of emergency department visits for cases with periapical abscesses increased from 460,260 in 2008 to 545,693 in 2014, an 18.5% increase. This was not expected since the authors speculated that the emergency department visits would decrease over this period with the ACA provisions. In contrast, Laniado et al.'s study (2017) showed that with Medicaid expansion, emergency department visits for non-traumatic dental conditions decreased 19.3% in young adults 18-26 years old. Medicaid is the leading health insurance used to cover these costs, and greatly benefits the patient since the average cost of an emergency department visit pertaining to periapical abscesses was $1080.50 reaching a total cost of $3.4 billion across the United States per year (Rampa et al., 2019). Nevertheless, despite the ACA provisions, good oral health is still a struggle for low-income individuals. The apparent increase in emergency room visits in Rampa et al.'s (2019) study is explained by the observation that all the dentists in the area studied were at capacity, and the patients were unable to make an appointment for

primary dental care. Additionally, low-income individuals in these areas required extensive dental care and did not live near a dental facility, hence, they turned to seek dental care at an emergency department. It would be interesting to see how future emergency department visit trends change once the ACA has been in place for a longer term.

3.3 Pediatric Dental Visits

Kranz and Dick's (2019) study focused on dental care for children under the ACA and how the benefit was utilized across the United States. The study focused on children between the ages of 1-18 years of age with a parent or guardian who would benefit from the ACA. The authors compared rates of children's dental visits before the implementation of the ACA and the rates after the implementation. The study noted that the increased dental coverage for children did not correlate with increased pediatric dental visits. The low number of dental visits for children is most likely due to underutilization of dental benefits by parents, parents did not know about the benefits provided by the ACA, and the challenge of taking children for dental consultations due to lack of transportation or busy parent activity schedules (Kranz & Dick, 2019). Presumably, implementing more programs to emphasize the importance of oral health in children or policies that would provide transportation for children would improve the number of dental visits.

Song et al.'s (2021) report explored factors that correlate with Hispanic and non-Hispanic black children receiving dental services. Of the 5,055 Hispanic children sampled and 2,695 non-Hispanic black children aged from 2-17 years, researchers reported that the parent's education level greatly impacted the insurance coverage for the dependent. If a legal guardian or parent had a significant amount of post-secondary education, they would be expected to have a job providing health insurance covering any dependent such as children. However, if the legal guardian or parent had less education, it was correlated with a job that did not have health insurance that covered dependents. Luckily, the passing of the ACA increased health insurance for low-income individuals and households with children (Song et al., 2021). The researchers saw a significant increase in dental office visits by families with limited health insurance and a slight increase in families with more comprehensive health insurance. From studies like these, it is clear that the enactment of the ACA has led to more accessible health care for all, regardless of the parent's education level or family circumstances. Even though some families had more comprehensive dental care before the ACA, they still benefited from other aspects of the Act, such as dependent coverage lasting until the child turned age 27 (Song et al., 2021).

3.4 Adult Dental Visits

In general, research indicates that expanded Medicaid dental coverage through the ACA is extremely valuable in improving oral health in low-income individuals. The passing of the ACA provided millions of low-income individuals and households with health coverage missing previously. Elani et al.'s (2020b) study examined how the extended Medicaid dental coverage through the ACA influenced the utilization of oral health services for low-income people. Using the National Health Survey data from the years 2010 to 2018, the study evaluated trends in oral health. In states that supported dental coverage through

the ACA, there was an 18.9% increase in dental visits for adults (Elani et al., 2020b). The most significant increase in dental visits was seen among the Caucasian adult groups; however, the study is unclear exactly why this was so. There was also an increase of 1.4% in complete tooth loss, most likely due to many years of poor oral health and then acquiring dental care (Elani et al., 2020b). After a consultation with the dentist, it was most likely recommended that the tooth be removed. These findings illustrate that providing extended coverage for adults removed barriers to dental care and increased the number of dental office visits. The results from this study also align with the data collected from Valachovic (2018), who also noted that the ACA increased the number of dental visits among low-income individuals.

Wehby et al.'s (2019) illustrated the importance of the ACA and how it increased the number of dental visits by focusing on low-income adults who previously could not access dental coverage, ultimately leading to poor oral health. The study reviewed data from the Behavioral Risk Factor Surveillance System surveys for 2012, 2014, and 2016, all years after the implementation of the ACA. The data used 117,000 low-income individuals aged 25 years and older as participants residing in states with Medicaid dental coverage expansion through the ACA. The results indicated that there was nearly a 6% increase in the probability of a low-income individual seeking any sort of dental professional in 2016. This was over a 10% improvement from the previous rate of seeking a dental professional before the implementation of the ACA in states with comprehensive dental care. In addition, the most significant increase of low-income adults seeking a dental professional was found in areas with an extremely high concentration of dental professionals since individuals could easily access dental care. In states, without many dentists, there was no significant increase in dental office visits (Wehby et al., 2019). Very similar results were found in low-income adults who resided in states that did not have an expanded Medicaid dental coverage under the ACA. The data suggests that while low-income adults understand they have the increased dental benefits, they must live in the lesser vicinity of a dental office for the adults to utilize the benefits fully. Therefore, even with improvements in dental care access financially, transportation could be another barrier that low-income individuals must navigate. Easily stated solutions (but challenging to implement) are to increase the number available dental professionals in these areas, and to increase public awareness on the importance of oral health and its importance to overall well-being. This could encourage individuals more willing to seek dental care (Wehby et al., 2019).

Lau et al.'s (2015) article highlights the importance of the ACA in expanding insurance coverage for young adults from ages 18-25 years old. The study used data gathered throughout the United States from 2009 (before the implementation of the ACA), and 2011 which was a year after the implementation of the Act. Although the study collected a large and diverse amount of information on medical procedures and screenings, this paper will only discuss the results pertaining to the annual dental visits. The report found that in 2009, only 55.2% of the participants in the sample groups had an annual dental visit. Then in 2011, after the start of the ACA, the yearly dental visits in the sample population rose 60.9%. This is a significant increase in the number of young adults seeking dental care attributed to the implementation of

the ACA. The study also found a 5% decrease in uninsured young adults. This is most likely the reason for the increased dental visits since the ACA helped remove a significant financial barrier. The findings from Lau et al.'s (2015) study are similar to the results from Wehby et al. (2019), which found adults, although slightly older, benefited from more comprehensive dental insurance coverage. However, future studies need to focus on how transportation and the number of dentists in an area can impact the accessibility of dental care services.

Lastly, Singhal et al.'s (2017) study focused on how increased dental coverage for low-income adult enrollees was utilized. The study obtained data from 2010-2014 through the Behavioral Risk Factor Surveillance System from 31 states and the District of Columbia that had expanded Medicaid dental coverage. Analysis of this study indicates that low-income adults in states that supported Medicaid dental coverage above just emergency-only care had a higher chance of individuals making a dental visit than in the previous years. In states without comprehensive dental coverage, the probability of dental office visits decreased significantly. Data showed that low-income adults without children had a 1.8% higher chance of visiting the dentist (Singhal et al., 2017). In contrast, adults with dependents like a child had a surprising 8.1% decrease in the likelihood of visiting a dentist. To account for this surprising decrease, the study hypothesized that once the implementation of Medicaid dental coverage began, low-income adults without children fully maximized the capacity of dental professionals and dental offices. Those professionals were now unavailable to parents and their children after the ACA implementation. The study suggests that to raise the levels of dental care for parents and their children, there needs to be better crafted and innovative policy initiatives (like financial incentives, tax breaks, credit facilities, public transportation, etc.) to expand the availability and reach of dental professionals practising in the area (Singhal et al., 2017).

4. Conclusion

Oral health is an integral part of overall health because it has a significant impact on systemic health, quality of life, and economic productivity. The reviewed studies have provided evidence that: 1) the availability of Medicaid adult dental coverage in a state is significantly associated with access to dental care among low-income adults; 2) that as a result of the ACA, children may receive dental services that eliminate acute dental problems; 3) there are significant early impacts of Medicaid expansion on dental care utilization; 4) that while expansion of Medicaid with generous dental coverage improved dental care access to populations, it occurred only in areas with a high density of providers; 5) there is a need for creative policy changes to improve pediatric dental coverage and promote professional recommendations for effective dental hygiene; and 6) due to state-level variation in Medicaid adult dental coverage, the gains made in expansion states were concentrated among childless adults and not parents with children.

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