

Covid-19 related food insecurities among US adults and food insecurity related health outcomes during the Covid-19 pandemic.

Literature Review

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Literature Review

Coronavirus also known as the SARS-CoV-2 is the new virus that caused pandemic and a world wide lockdown in the year 2020. The virus has infected 93,728,608 people and has caused 2,006,440 deaths so far. The statistics show that 66,991,775 have recovered so far worldwide (worldometer, 2020) The virus can spread between people through respiratory droplets be it direct or indirect contamination. The infection could also spread via mouth and nose secretion, by either saliva or secretions such as respiration (WHO, 2021). When the Covid-19 pandemic hit, the whole world felt the hit in many ways, be it financial, or emotional. But along with these conditions the United States also faced food insecurities. Food insecurity is used as an indicator to know the nation's public health by nutritional sector (Fitzpatrick, Harris, Drawve, & Willis, (2020). Food insecurities come with other health disparities and health outcomes. Healthy people 2020 defines food insecurity as a change in eating patterns or unorganized food intake due to either financial conditions or other factors (Health people 2020, *Food Insecurity*). Before the pandemic, 1 in 9 households reported being food insecure in the United States (Coleman-Jensen, Gregory, & Singh, 2014).

Having said this we can see why food insecurity would have been on top of the list of the problems the world population faced when the pandemic hit as even without the pandemic, the world's population still faces food insecurities. Food insecurity in 2018 was 11% in the United States and during the year 2020 when the pandemic hit and all the policies and interventions were put in place to contain the virus the food insecurity level increased to 38% in the United States (Wolfson, L. 2020). This projects the image on how serious of an issue food insecurity is and to look into the health impact it causes especially during the times of a pandemic is crucial in identifying where the public health system stands. Food insecurities can be a consequence of a few things that the population faced during the pandemic and is still currently facing. Problems such as unemployment played a major role in food insecurity. Talking about unemployment the cycle was very clear, when social distancing was used as an intervention and stay at home orders were passed businesses closed which lead to laying off employees, leading to high, record breaking unemployment rates in the United States at the start of the 2020 year. Unemployment brought with it difficulties to make ends meet be it financially for rent or even to buy food for the family. This is why it is crucial to look into food insecurity as it is as important as the other issues the Covid-19 pandemic brought. The literature review focuses on the adults in United States and the health outcomes food insecurity brings with . Talking about the United States, every age group and racial group faced food insecurities but we narrowed down the group to adults in the US, for this literature review to give us an insight on how the situation is for the age group.

When investigating adults in the United States, we know that low-income adults are more likely to struggle during the pandemic than high-income adults. An article published aimed to understand the outcome of the covid-19 pandemic had on low-income adults in the United States (Wolfson, L. 2020). The study had a national web-based survey that accounted for 1478 applicants. The study stated that a web-based questionnaire was composed to help measure the initial effect of the coronavirus pandemic. The study recruited using their categories set before starting the survey which was according to their matched age, gender, race/ethnicity of the overall population. The sample consisted of the population where the household income was less than 250% of the federal poverty line. The study found out that 44% of their sample population were food insecure. Along with this, the study also showed the existing health disparities related to food insecurity status. This was either the inability to attain basic needs which eventually lead to health issues such as physical health problems or mental health problems. These health problems can either be short term or long terms and will lower the health status overall gradually (Wolfson, L. 2020). Similarly, another article by Fitzpatrick, Harris, Drawve, & Willis, (2020) talks about how food insecurities are questionable as to where they will get food as shelves started clearing out and places where the local population would get food is close (Fitzpatrick, Harris, Drawve, & Willis, (2020). The article also talks about who would be at higher risk of food insecurities, where they mention that the population who have poorer health, higher levels of depression and anxiety lead to higher food insecurity. The article then talks about how this will deteriorate health leading to worse health outcomes such as higher rates of adult mortality due to nutrition deprivation. The article also highlights and shines light on the consequences that food insecurity leads to. The authors link how mental and physical health can bring a burden on food security and how medical costs have increased during the pandemic that directly affects the rates of food insecurity. The study used a sample population of 10,368 adults from the age group of 18 and above, and collected their measures through an online survey. The survey found that more than one-third of the sample population reported medium to high food insecurity. The author states the findings that individuals with low-income and of black and or hispanic race and ethnicity have higher odds of food insecurity than other race/ethnicity or socio-economic standards (Fitzpatrick, Harris, Drawve, & Willis, (2020). This article again shows how adults in the United States face high food insecurity during the pandemic.

Talking about food insecurity and learning that it leads to health outcomes, research is also done during the Covid-19 pandemic on how health is affected. An article by Leddy, Weiser, Palar, & Seligman,(2020) examines the health outcomes on food insecurity during the covid-19 pandemic. The authors mention how vulnerable populations such as those with existing disease, either acute or chronic and older adults have higher odds of food insecurity due to lower access to food due to the fear of the coronavirus exposure. The author establishes a link between short-term and long-term health results due to the pandemic on food insecurities. Leddy, Weiser, Palar, & Seligman,(2020) discusses how food insecurity is associated with cheap, energy dense food for example junk food which ultimately leads to increasing numbers of chronic diseases

such as obesity, in which lockdown rule plays a role as physical activity reduces at home. The CDC states that hospitalized rates among patients were 48.3% obese during the pandemic, this shows that even though obesity can be a health outcome of food insecurities, it will also fuel into more people being infected by the coronavirus (CDC, 2020). These foods also lead to high rates of cardiovascular disease in the years to come as these foods are cheaper and the first target for low-income holders and those who hardly make ends meet everyday due to unemployment. Looking into the future these health outcomes will drag into many years after the outbreak. Secondly, the author mentions how food insecurity will affect chronic mental health conditions for those who are affected. These could be due to losing their job, having social distancing and social isolation, which put people into solitude for many weeks straight causing anxiety, depression and at times post-traumatic stress disorder. During the pandemic, everything was made costly, including food. Having to choose being feeding ourselves or paying for medication for chronic disease leads to increased numbers in mortality and morbidity. Food insecurities can also drastically affect maternal and child health during the covid-19. An article by, Robertson et al., (2020) elaborates on how a decrease in access to food and routine health care disruption will result in high mortality rates of maternal and child deaths.

Conclusion:

The literature on food insecurity shows alarming importance on the impact food insecurity has on the population, especially on low-income populations and of people of certain race/ethnicity. Research talked about how many people suffer for food insecurity especially of adults in the United States, who were experiencing unemployment at the start of the pandemic when businesses started closing, and also for those who were incapable of having access to food as shelves started clearing out and also their local stores closed. This was mostly impactable to the low-socioeconomic population as other alternatives such as buying food online or going to other stores would be expensive for them. There is still room for more research on how the people overcome these situations that they are facing with food insecurities, as we are aware of the problem they are facing. Literature and research also shows that even though we know food insecurity is a problem itself and has drastically increased during the pandemic, it also has consequences of short-term and long-term health issues. These health outcomes are such as obesity, cardiovascular, mental health issues such as depression and anxiety and PTSD. Limitation to this literature review would since the pandemic is still ongoing, having the correct, precise information about how the pandemic affected the rates of food insecurity would not even be close to the real picture. Thus, research could be done on the long-term effects that food insecurity had during the pandemic, and also how people overcame the problem of food insecurity in the first place.

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