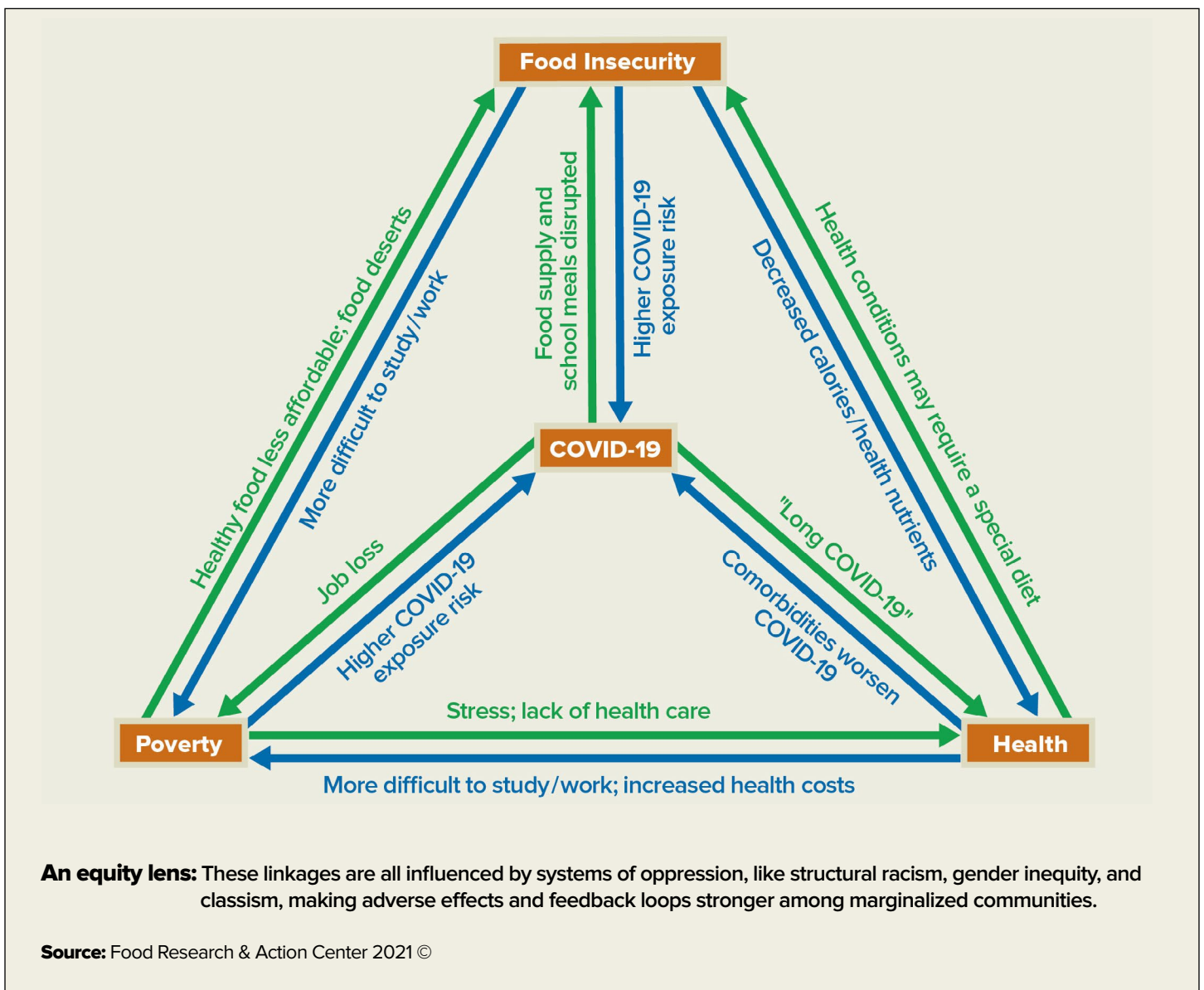


# Linkages Between Food Insecurity, Poverty, and Health During COVID-19

Food insecurity<sup>1</sup> is part of a larger feedback cycle between poor health outcomes and poverty. The COVID-19 pandemic has applied unique pressures to these relationships, while food insecurity, poor health outcomes, and poverty simultaneously increase the risk of COVID-19 infection, transmission, and morbidity.<sup>2</sup>

**FIGURE 1: Linkages Between Food Insecurity, Poverty, and Health During COVID-19**



## COVID-19 (green arrows going out):

**Food insufficiency has increased:** In late April 2020, 9.5 percent of households reported food insufficiency in the prior seven days. Food insufficiency rose to a peak of 13.7 percent in late December 2020 before dropping to 8.8 percent in March 2021.<sup>3</sup> Reasons for higher food insufficiency during COVID-19 include higher prices for food,<sup>4,5,6</sup> disrupted community social support networks,<sup>7,8</sup> and the loss of meals due to school and daycare closures.<sup>9,10,11,12,13,14,15</sup>

**Poor health has increased:** COVID-19 was the third-leading cause of death in 2020.<sup>16</sup> For survivors, there are indications of persistent side effects, or “long COVID.”<sup>17</sup> There has also been an increase in mental health challenges.<sup>18</sup> Fear of COVID-19 and loss of health insurance<sup>19,20,21</sup> have caused individuals to delay seeking care for COVID-19,<sup>22</sup> disease management,<sup>23</sup> and disease prevention.<sup>24,25</sup>

**Poverty has increased:** Monthly poverty rates<sup>26</sup> have risen and fallen with the distribution of federal economic aid. Without federal COVID-19 relief, the poverty rate would have been 17.4 percent in January 2021, higher than the rate of 15.5 percent in January 2020.<sup>27</sup> Despite federal aid, families continue to struggle. The rate of job return has slowed.<sup>28,29</sup> As of March 2021, 29 percent of adults still had trouble paying for usual expenses in the prior seven days.<sup>30</sup> In addition, while total poverty has been reduced due to the federal stimulus programs,<sup>31</sup> there has been an increase in deep poverty (<50 percent of the poverty threshold).<sup>32</sup>

## COVID-19 (blue arrows going in):

**Food insecurity increases risk of exposure to COVID-19:** Low-income individuals were unable to shelter in place for a variety of reasons, including to access the charitable food system, increasing exposure risk through time outside the home and in transit. In addition, participants using electronic benefits cards have had limited options to use benefits for online shopping,<sup>33</sup> and grocery stores in low-income neighborhoods have been more crowded during COVID-19.<sup>34</sup>

### **Poor health increases susceptibility to COVID-19:**

Both a weaker immune system and chronic diseases increase susceptibility to COVID-19 and its complications.<sup>35</sup> An estimated 45 percent of Americans are at risk from severe COVID-19 complications due to a preexisting chronic disease.<sup>36</sup>

**Poverty increases risk of exposure to COVID-19 and inadequate care:** Individuals who live in poverty are more likely to live in crowded or unstable housing and tend to rely on public transportation, both of which are associated with COVID-19 exposure risk<sup>37,38</sup> and death.<sup>39</sup> Many low-wage “essential jobs” have increased exposure risk<sup>40</sup> particularly those jobs without paid leave.<sup>41</sup> Higher neighborhood-level poverty is associated with less capacity to treat COVID-19 patients.<sup>42</sup>

## Food insecurity, health, and poverty

(gray arrows along the edge): 

**Food insecurity and health:** Food insecurity is associated with poor diet and nutrient deficiencies,<sup>43,44,45</sup> as well as depression and anxiety,<sup>46,47,48</sup> which all lead to an impaired immune system<sup>49,50</sup> and chronic diseases.<sup>51,52,53</sup> Poor health and disability, in turn, make it more difficult to obtain healthy foods.<sup>54,55,56</sup>

**Food insecurity and poverty:** Food is often one of the first expenses to be cut when households are faced with financial hardship.<sup>57,58</sup> Food insecurity rates increase when a household experiences a sudden loss of income.<sup>59</sup> At the same time, food insecurity leads to an inability to focus or to chronic disease, which can make it difficult to maintain employment.<sup>60</sup> Food-insecure individuals are more likely to have higher health care expenditures, placing a larger strain on household budgets,<sup>61,62</sup> while debt associated with medical bills is associated with an increased risk of household food insecurity.<sup>63</sup>

**Health and poverty:** Lack of income and/or wealth often signifies the lack of the material resources needed for good health, like healthy food, safe housing, and educational opportunities.<sup>64,65,66</sup> Low-income individuals are also more likely to be uninsured or underinsured<sup>67</sup> and more likely to underuse medication in order to pay bills,<sup>68,69</sup> making it more difficult to manage disease. Poor health, in turn, makes it more difficult to focus on education and/or maintain employment, creating the “health-poverty trap.”<sup>70,71</sup>

Want to learn more? This brief summarizes information from the report [Hunger, Poverty, and Health Disparities During COVID-19 and the Federal Nutrition Programs' Role in an Equitable Recovery](#). See [FRAC's COVID-19 dashboard](#) for the full report and additional statistics on hunger during the pandemic.

## Endnotes

- <sup>1</sup> Food insecurity is the inability to acquire adequate nutritious food due to a lack of resources. Official estimates for food insecurity are measured through the Current Population Survey Food Security Supplement. Note, however, that official estimates for 2020 will not be available until September 2021. The Census Household Pulse Survey was developed to collect data quickly and frequently during COVID-19 and measures food insufficiency, which they define as “sometimes” or “often” not having enough to eat. Food insufficiency is more severe than food insecurity. See [Defining Food Insecurity and Measuring it During COVID-19](#) for more details.
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