INTRODUCTION

Health care delivery has been marked by greater spending towards social determinants of health (SDoH). From 2017 to 2019, US health systems invested over $2.5 billion in programs targeting SDoH, in part because social, economic, and environmental conditions account for 80% of a person’s modifiable contributors to health outcomes. These investments are leading to changes in how clinicians deliver care to patients with social vulnerability, as they consider the array of social services available. Other important stakeholders investing in SDoH are private insurers, which comprised 28% of total national health expenditures in 2020. However, there is limited evidence documenting the extent to which private insurers are investing in the social needs of their patient populations.

METHODS

We examined social spending across the top 20 US health insurers by market share (66.2% of total market) as identified by direct written premiums in the 2021 Market Share Report by the National Association of Insurance Commissioners. NAIC rankings were largely consistent throughout the study period. We also identified net income for a subset of insurers with publicly available Macrotrends data. To identify social spending, we searched news articles and press releases that included insurer name and the term “social determinant of health” or “community health” between 01/01/2017 and 12/31/2021. We categorized social spending into housing, food security, employment, education, social and community context, and transportation. Additionally, we created a seventh category, “general SDoH” for social spending that lacked a clear category due to reporting methods. Initial categorization of investments was led by one independent researcher and validated by two additional researchers. When an insurer invested in multiple categories without a detailed breakdown, we evenly divided the investment across categories. For yearly classification, we used the date of the funding noted when available and the date of the publication when not available. Spending included direct grants to community organizations and insurer-led projects systematically designed to address community health rather than charitable giving alone. We excluded investments in mental health, substance use, domestic violence, natural disaster relief, technological infrastructure, community health workers, and racial equity initiatives without an explicit mention of SDoH.

RESULTS

Between 2017 and 2021, total identifiable social spending for the top 20 private health insurers was at least $1.87 billion. The top 6 insurers by market share made up 72% of total social spending. As a percent of net income, these six insurers, on average, spent 0.11% of dollars on SDoH in 2017, 1.6% in 2020, and 0.67% in 2021. Most funds went to housing ($1.2 billion) and food security ($238 million). $247 million were allocated towards “general SDoH.” The least amount of funding was directed to transportation ($13.4 million), followed by social and community context ($49.7 million), education ($57.2 million), and employment ($58.6 million). Examples of initiatives across these SDoH categories are listed in Table 1. Social spending spiked in 2020 for all categories, except for social and community context (Figure 1).

DISCUSSION

Private health insurers are investing substantial dollars in social programs that better address the root causes of disease, potentially contributing more to health than clinical care alone. However, social spending constitutes a small share of insurer profits. For example, UnitedHealth Group reported $6.7 billion in net income in Q2 of 2020 alone. Record profits in 2020 may partly explain the large investments in social programs during that year, though our data show that insurers spent a higher percentage of dollars on SDoH, perhaps because of urgency around the COVID-19 pandemic. Whether insurers should spend more on these programs is unclear considering that these dollars may be instead used to lower patient premiums and cost-sharing. The impact of insurer social spending remains equivocal, though practice patterns, such as considering SDoH in hypertension guidelines, will

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Table 1 Social Spending Categories and Associated Example Projects

| Sector                              | Types of social spending initiatives                                                                 | Total identifiable social spending (2017–2021) |
|-------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Education                           | • School supply donations<br>• Scholarships<br>• Apprenticeship programs<br>• Summer enrichment<br>• Post-secondary attainment | $57,182,200                                 |
| Employment                          | • Workforce development<br>• Job-training programming<br>• Economic mobility<br>• Job creation         | $58,623,832                                 |
| Food security                       | • Donations to food banks<br>• Meal donations<br>• Food distribution truck purchases<br>• Nutritional health public education | $237,597,883                                |
| Housing                             | • Investments/grants in the construction, rehabilitation, and maintenance of affordable housing units<br>• Grants targeting housing insecurity/homelessness<br>• Rent/mortgage/utility grants | $1,201,938,401                              |
| Social and community context        | • Community-driven improvements<br>• Social needs and safety-net services<br>• Diversity and inclusion initiatives | $49,666,854                                 |
| Transportation                      | • Transportation assistance for access to health services<br>• Transportation for elderly and/or people living with disabilities<br>• Transportation to address social isolation | $13,364,000                                 |
| General SDoH                        | • Other funding that mentions SDoH without mentioning specific categories of investment               | $246,785,888                                |
| **Total**                           |                                                                                                      | $1,865,159,058                              |

Figure 1 Social spending by top 20 private health insurers from 2017 to 2021 by category. Legend: Trends in social spending by top 20 private health insurers from 2017 to 2021 show that housing programs disproportionately received the most funding, followed by food security and general SDoH programs. Trends also show that funding for nearly all categories peaked in 2020, likely due to the onset of the COVID-19 pandemic. From 2019 to 2020, spending increased by a factor of 2.71 for housing, 15.80 for food security, 1.07 for education, 1.01 for employment, 1.66 for social and community context, 2.23 for transportation, and 2.28 for general SDoH.
continue to change as payers and providers make more investments.

Our study has limitations. It is possible that we missed investments by private insurers not publicly posted, leading to an underestimation of investments. Additionally, yearly classification of investments may be misclassified depending on when they were publicized. Further, we did not evaluate investments in areas like racial equity and community health workers, whose dollar investments are likely insignificant compared to investments in more mainstream SDoH (e.g., housing) but are expected to grow over time.

Declarations:

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REFERENCES

1. Horwitz LI, Chang C, Arcilla HN, Knickman JR. Quantifying health systems’ investment in social determinants of health, by sector, 2017–19. Health Aff (Millwood). 2020;39(2):192-198. https://doi.org/10.1377/hlthaff.2019.01246

2. Hood CM, Gennuso KP, Swain GR, Catlin BB. County health rankings: relationships between determinant factors and health outcomes. Am J Prev Med. 2016;50(2):129-135. https://doi.org/10.1016/j.amepre.2015.08.024

3. NHE Fact Sheet | CMS. Accessed January 5, 2022. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet

4. 2020 Market Share Reports For the Top 125 Accident and Health Insurance Groups and Companies by State and Countrywide. National Association of Insurance Commissioners. June 2021. Accessed January 5, 2022. https://content.naic.org/sites/default/files/publication-msr-hb-accident-health.pdf

5. Unexpected Health Insurance Profits and the COVID-19 Crisis | Health Care Economics, Insurance, Payment | JAMA | JAMA Network. Accessed January 5, 2022. https://jamanetwork.com/journals/jama/fullarticle/2772481

6. Razon N, Hessler D, Bibbins-Domingo K, Gottlieb L. How hypertension guidelines address social determinants of health: a systematic scoping review. Med Care. 2021;59(12):1122-1129. https://doi.org/10.1097/MLR.0000000000001649

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