Corporate Social Responsibility Framework: An Innovative Solution to Social Determinants of Health in the USA

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Corporate Social Responsibility Framework: An Innovative Solution to Social Determinants of Health in the U.S.

1. ABSTRACT

Purpose: Expand firms' corporate social responsibility (CSR) framework to systematically address social determinants of health (SDOH) in their communities and improve firms' performance (FP).

Gap: U.S. healthcare has struggled to improve population health outcomes while enhancing delivery performance. An oft-overlooked contributor to this deficit is SDOH inequities accounting for 25-60% of deaths in the U.S. annually. Ironically, most healthcare firms do not view investment in SDOH, a neglected phenomenon, to develop sustainable healthy communities as their direct responsibility due to the "wrong pocket problem." Although extant literature theorizes CSR construct, there is a paucity of research on SDOH integration with the CSR framework.

Design: We integrate a quantitative and qualitative study with supplementary literature on CSR and SDOH using the grounded theory method by researching fourteen health plan firms across the U.S.

Findings: Research reveals early efforts undertaken by top-performing healthcare insurers to address SDOH and provides evidence that such measures can be integrated profitably under CSR as a competitive advantage.

Originality: Contributes to CSR theory and practice by providing an empirical model and expanding its framework to address SDOH systematically. Key implications are: 1) healthcare firms to link with unconventional partners, such as housing authorities, food banks, employment agencies, and schools; 2) the entire healthcare supply chain to collaborate with social enterprises and regulators to develop sustainable communities; 3) Policymakers must incentivize firms to align social equity and corporate goals;

and 4) long-term view on CSR, SDOH, and healthy living (HL) will in-turn eliminate social inequities while enhancing FP.

2. KEYWORDS

Social determinants of health; corporate social responsibility; health inequities; value-based care; healthy living.

3. INTRODUCTION

The World Health Organization (WHO, 2008) defines SDOH as "the conditions in which people are born, grow, work, live, and age and the wider set of forces and systems shaping the conditions of daily life." SDOH includes the complex, integrated, and overlapping social structures and economic systems responsible for most health inequities, including social & community context, economic stability, neighborhood, physical environment, education, food, and healthcare system (WHO, 2008). Ironically, most healthcare firms do not view investment in SDOH to develop sustainable and healthy communities as a direct responsibility due to the "wrong pocket problem," as they are unlikely to reap quick gains (Gottlieb et al., 2017). Without unconventional partnerships to address SDOH, existing healthcare models cannot deliver intended outcomes effectively, including value-based care (VBC) (Jain et al., 2022). Porter and Kramer (2006) argued that instead of acting on well-intentioned impulses or outside pressures, a firm could set an affirmative CSR agenda related to a social issue closely tied to its business and produce the greatest social benefits as well business gains. In this context, we believe SDOH is the perfect challenge for healthcare firms to tie to their CSR strategy and their most significant opportunity to develop sustainable healthy communities besides reformulating their competitive advantage.

4. RELATED LITERATURE, THEORY, AND PROPOSITIONS DEVELOPMENT

To comprehensively examine the factors that contribute to and can potentially improve social inequities, this literature review spans the following four sections: Social Determinants of Health (SDOH), Corporate Social Responsibility (CSR), Firm's Performance (FP), and Healthy Living (HL).

4.1 Social Determinants of Health (SDOH)

SDOH is a critical social opportunity that exposes a vital conflict between shareowners and managers of the firm, as addressed by agency theory (Ross, 1973). In most agency relationships, the principals (shareowners) and the agents (managers) will incur positive monitoring and bonding costs (non-pecuniary and pecuniary); additionally, there will be some divergence between managers' decisions and those that maximize the welfare of shareowners. This premise suggests a positive relationship between CSR and FP (Firm's Performance) and SDOH and FP to encourage firms and their management to support social initiatives for a win-win proposition with an optimal mix of pecuniary and non-pecuniary benefits. The growing recognition amongst healthcare stakeholders that their firms and policies will need to mitigate health inequities due to SDOH to cost-effectively manage population health supports these propositions (Porter and Lee, 2013; Horwitz et al., 2020).

There is also an acute need to analyze current programs undertaken by U.S. healthcare firms to deal with SDOH. Such efforts include investment in community health resources, housing & sanitation, safety & security in neighborhoods, environment welfare, scholarships for disadvantaged children, healthy food, and partnerships with local hospitals and pharmaceutical firms for cost containment (Gottlieb, Ackerman, Wing, and Manchanda, 2017). Advanced efforts to improve communities' sustainability in the short- and long-term include building the skillset of impacted populations to enable their transition to better employment and living standards. This study categorizes the direct investments made in various SDOH programs by U.S. healthcare firms. Horwitz et al. (2020) conducted a quantitative study of commitments by healthcare firms to address SDOH during 2017-19 based on publicly available information and data. Still, a gap remains in assessing how these commitments were executed and whether they left the intended

impact on the communities while benefiting the firms. We fill this void by defining a sound quantitative and qualitative approach to investigate the scope of key programs, size of investments, and impact felt by communities and firms in terms of customer satisfaction, financial rating, and quality. Just as environmental responsibility is integral to the CSR framework, it is imperative that SDOH, a serious sustainability crisis, is treated similarly. This literature examination brings us to our first proposition:

P1: CSR has a direct positive influence on social determinants of health (SDOH).

As a recognition that SDOH is the root cause for 80% of modifiable contributors to health-related outcomes, during 2017-2021, the top 20 health plans, accounting for 66.2% of the market share, spent at least $1.87 billion on SDOH out of $2.5 billion spent by U.S. health systems. These firms also have the highest percentage of net income per Macrotrends (Velasquez et al., 2022). This evidence suggests that high-performing healthcare firms have begun to consider SDOH as a part of their social responsibility. Still, the engagement needs to be broad-based, involving the entire supply chain.

4.2 Corporate Social Responsibility (CSR)

CSR refers to a firm's strategic actions in planning and executing its business activities in an ethical and social boundary (Aguilera et al., 2007). The focal concept of CSR is to empower stakeholders to leverage the available firm-based and market-based resources to accomplish the firm's economic, environmental, and social objectives (Porter and Lee, 2013). The CSR framework encourages collaboration with supply chain partners, employee and stakeholder empowerment, and the protection of natural resources (Ismail, 2009).

The classical view of CSR is solely grounded in philanthropic activities (Lee, 2008). However, the CSR framework proposed by Carroll (1991) indicates that volunteering and charity comprise a relatively small proportion of a firm's objectives. The concentric circles of CSR imply that a firm must create a better future for subsequent generations (Lee, 2008). CSR is a critical marketing tool that contributes to the

competitive advantage, prestige, and performance for-profit and not-for-profit firms (Porter and Lee, 2013). However, unlike CSR activities in other sectors, focusing primarily on the environment or philanthropy (Lee, 2008), healthcare CSR investments need to be organized to balance community wellness programs and systematic SDOH initiatives for the most vulnerable populations (Schano, 2019).

CSR initiatives in healthcare generally involve training paramedical teams, education seminars, and charitable activities to improve population health (Gazzola, 2014). CSR initiatives strengthen firms' value, increase customer loyalty, and strengthen positive perceptions about their products and services. Some studies identify a positive relationship between CSR and FP (Porter and Lee, 2013; Gazzola, 2014). Another study reveals that enhancing public reputation is the key reason firms engage in CSR (Inleh, Bartlett, and May, 2011). In this context, healthcare firms must strategically budget and implement CSR activities to gain consumer goodwill. Moreover, Vlachos et al. (2009) state that profit motive-based CSR may negatively impact the overall value; this is relevant to the healthcare sector, which is expected to implement social and community-based CSR without profit motives. Finally, several studies demonstrate that CSR can positively impact customer loyalty (Porter and Lee, 2013; Gazzola, 2014).

4.3 Firm's Performance (FP)

Stakeholder theory provides a robust conceptual linkage between a firm's CSR and FP CSR may influence customer perception, engagement, and satisfaction; therefore, it can enhance market perceptions. Though the customer channel is not the sole connection between CSR and FP, customers' perceptions and behaviors impact a firm's economic performance and value. We focus on the CSR activities that are most visible to the public, specifically "community CSR," consistent with prior studies (Gazzola, 2014; Bardos, Ertugrul, and Gao, 2020). CSR initiatives enhance the firm's reputation for deepening its community commitments and therefore incentivize stakeholders to contribute resources that in turn augment FP (Ismail, 2009).

Barnett (2007) proposes that CSR impact on FP depends on its ability to influence stakeholders, customer satisfaction, financial strength, product quality, and service portfolio. A firm can charge differential prices because of improved relationships with stakeholders, financial standing, and quality ratings. CSR thus enhances customer satisfaction, prestige, and product market perception, further enhancing FP (Mittal, Anderson, Sayrak, and Tadikamalla, 2005).

Ohranian and McConnell (2018) found that by effectively addressing critical SDOH for vulnerable populations, readmission rates for key medical conditions can be reduced, thereby contributing to cost avoidance. SDOH causes discharge delays or delays in social services, leading to bed-blocking and delayed care to others. In the U.S., the Centers for Medicare & Medicaid Services (CMS) started allowing Medicare Advantage plans for seniors to cover the cost of several innovative benefits, further improving FP (National Quality Forum, 2019). Barnett (2007) emphasizes that expanding the social safety net costs money, but stakeholders have little consensus regarding who should pay. Therefore, systematically budgeted CSR improves a firm's financial performance by improving its relationship with its stakeholder groups, including customers and supply chain, which forms the following proposition:

P2: CSR has a direct positive influence on a firm's performance (FP).

To measure FP, we leverage healthcare industry-accepted and reliable ratings from (a) the National Committee for Quality Assurance (NCQA, 2020) Health Insurance Plan Ratings (HIPR) 2019–2020, (b) the AM Best's health insurance firms' ratings (2020), and (c) the J.D. Power U.S. Health Plan Study ratings (2019). The triangulation of these multi-ratings provides the most comprehensive measures of a healthcare insurance firm's performance (Marquit, 2020).

4.4 Healthy Living (HL)

Healthy Living (HL) is defined as the promotion of a healthy lifestyle and well-being of communities through interventions that contribute to improving social, economic, and environmental

factors (AHRQ, 2016). The National Quality Strategy initiative advocates for enhancing population health as critical to improving life quality and expectancy by promoting fitness, healthy eating, being tobacco-free, or preserving environments per the model of "Life Satisfaction." Sustained efforts to enhance these health factors depend upon instituting evidence-based interventions leveraging collaboration between healthcare payers, providers, population health professionals, and consumers. Besides advocacy, HL interventions include affordability and accessibility of high-quality and effective clinical preventive services (AHRQ, 2016).

Population health programs include subsidized preventive disease screenings and scheduled immunizations to promote HL (Gazzola, 2014). VBC is delivered by preventing disease, disability, and discomfort, instead of reactive treatment for clinical conditions (AHRQ, 2016; Institute of Medicine, 2001). The following VBC services improve HL: Maternal and Child Healthcare, Lifestyle Modification, Clinical Preventive Services, Functional Status Preservation and Rehabilitation, and Supportive and Palliative Care.

Administration of SDOH and HL programs requires comprehensive usage tracking for effective monitoring and control. This also involves the implementation of specialized integrated practice units (IPUs) through strong collaboration across the supply chain (Porter and Lee, 2013).

HL is also influenced by access to social and economic opportunities. The conditions in which we live partly explain why some people are healthier than others, and why the American population is less healthy compared to the population in other Organization for Economic Co-operation and Development (OECD) countries (Office of Disease Prevention and Health Promotion, ODPHP, 2020).

Healthy People 2030, a program by ODPHP, highlights the importance of addressing SDOH by including "Create social and physical environments that promote good health for all" as an overarching goal. WHO shares this emphasis in its 2008 report "Closing the gap in a generation: Health equity through action on the SDOH." Furthermore, this vision is nurtured by initiatives such as the National Partnership for Action to End Health Disparities and the National Prevention and Health Promotion Strategy.

"Healthy People 2030" advocates for developing social and natural environments that enable effective population health while mitigating SDOH inequities (Mittal, Anderson, Sayrak, and Tadikamalla, 2005). Finally, HL is the ultimate outcome-based and customer-centric construct that epitomizes VBC (Porter and Lee, 2013). Therefore, a systematic framework of HL programs based on SDOH priorities can energize community CSR, encourage risk-reward collaboration amongst healthcare stakeholders, and improve their operational and financial performance.

This literature review brings us to the following propositions:

P3: CSR has a direct positive influence on healthy living (HL).

P4: SDOH has a direct positive impact on healthy living (HL).

We propose that SDOH and HL require the most comprehensive level of quality healthcare operation by the entire supply chain and unconventional partners, like CBOs. The pursuit of operational excellence amongst the stakeholders can significantly improve their delivery effectiveness, risk sharing, customer satisfaction, and quality ratings leading to enhanced financial performance. From this comprehensive discussion, we gather that SDOH and HL add to FP by improving customer satisfaction and the firm's reputation, quality, and product market perception.

P5: SDOH has a direct positive impact on a firm's performance (FP).

P6: HL has a direct positive influence on a firm's performance (FP).

P7: SDOH has a mediating role in strengthening the relationship between CSR and a firm's performance (FP).

P8: HL has a mediating role in strengthening the relationship between CSR and a firm's performance (FP).

5. RESEARCH METHODOLOGY AND DESIGN

The discussion above leads to developing our empirically operationalized model for this study that shows all the eight relationships propositioned here based on the robust literature review. As conceptualized in Exhibit 1, CSR, if implemented systematically, can influence SDOH, HL, and FP.

Exhibit 1: Research Model and Methodology - CSR, SDOH, Healthy Living, and Firm's Performance

This exploratory study incorporates healthcare industry-accepted, esteemed and reliable qualitative and quantitative data from three rating agencies: (a) the NCQA HIPR 2019–2020 ratings (NCQA, 2020) that measure healthcare effectiveness, customer satisfaction, and process quality, (b) the AM Best's health insurance firms' ratings (2020) that represent financial strength, operational performance, firm's profile, and enterprise risk management, and (c) the J.D. Power U.S. Health Plan Study ratings (2019) that measure customer satisfaction regarding billing and claim payment processing, cost of care, network coverage and plan benefits, customer service, plan information & communications, and provider choices. These three ratings provide a directional measure of a healthcare insurance firm's performance (Marquit, 2020), to be further generalized by future empirical studies by employing direct regression methods.

As depicted in Exhibit 1, the research methodology and design accounted for a comprehensive national coverage context as a starting point by analyzing data from 35,000 respondents across 22 regions in the U.S. The total number of plans represented was 147. Then, we screened for customer satisfaction context (J.D. Power ratings) by shortlisting only the best-performing health plans covering the 22 regions to arrive at a sample of fourteen health plan firms accounting for 60% of the total market share. This was coupled with delivery effectiveness, operational (NCQA ratings), and financial performance (AM Best ratings) context to have robust validity and reliability of the FP construct and a sound conforming sample. Further, we collected qualitative data on SDOH and HL initiatives led by these 14 healthcare insurance firms from their annual, CSR, and charity giving reports.

NCQA Health Insurance Plan Ratings list private (commercial), Medicare and Medicaid health plans based on their aggregated measures of (1) clinical quality based on NCQA's Healthcare Effectiveness Data and Information Set (HEDIS); (2) consumer satisfaction based on Consumer Assessment of Healthcare Providers and Systems (CAHPS); and (3) findings from NCQA's review of a health plan's quality processes (per evaluation on NCQA Accreditation standards). NCQA evaluates health plans which provide quality information publicly. Accreditation status is as of June 30, 2019. NCQA Ratings compare the quality and services of Health Plans in the U.S.

AM Best's Credit Rating Methodologies (BCRM) for rating health insurance plans and insurance-linked securities and structures enable the stakeholders to benchmark financial strength, creditworthiness, and their ability to meet policyholder or securityholder obligations globally.

J.D. Power U.S. Health Plan Rating provides subscribers with insights and tools required for a comprehensive, in-depth view of their health plans' performance and key areas of improvement. This rating provides actionable information and intelligence about members' experiences with their commercial health plan across six factors: billing and claims payment processing, cost of care, network coverage and plan benefits, customer service, plan information & communications, and provider choices.

A sample size of 14 best firms covering all 22 regions of the U.S. is considered per the J.D. Power U.S. Health Plan methodology. It is in line with qualitative research analysis fundamental to this mode of inquiry (Vasileiou, Barnett, Thorpe, and Young, 2018). Therefore, we deem that this study has an acceptable secondary data set for our qualitative and quantitative research and produces nationally and globally generalizable results. The literature review and methodology used lend the nomological validity to this study. Additionally, to assure the face and content (translational) validity of constructs and datasets, the authors applied subject matter expertise gained with 30 years of cumulative healthcare industry experience leading various functions, such as health plan, provider practice, clinical management, and emerging healthcare technologies.

Interpretative philosophy and inductive reasoning using the emergent Framework Method (Tobin and Begley, 2004) is used to interpret quantitative and qualitative data to look for relationships amongst types of SDOH programs, size of investments, and maturity of the CSR framework at these firms.

The study categorizes the direct investments made by U.S. healthcare insurance firms under various programs to address each dimension of SDOH. The results help in validating (1) the attitudes and perceptions of healthcare firms towards SDOH, (2) their approach in collaborating with unconventional partners, (3) placement of SDOH in the CSR framework, and (4) the impact of SDOH investment on FP.

6. RESULTS, DISCUSSIONS, AND CONCLUSIONS

Exhibit 2 (A and B Panels): Firm's Performance, CSR Initiatives, SDOH Categorization, and Healthy Living, below captures performance ratings of the 14 healthcare insurance firms in the U.S. from three rating agencies: (a) the National Committee for Quality Assurance (NCQA, 2020) HIPR 2019–2020 that measures healthcare effectiveness, customer satisfaction, and process quality, (b) health insurance firms AM Best's ratings (2020) that represent financial strength, operational performance, firm's profile, and enterprise risk management, and (c) the J.D. Power U.S. Health Plan Study ratings (2019) measuring customer satisfaction. These three ratings provide the most comprehensive measures of a healthcare insurance FP (Marquit, 2020). Exhibit 2A captures the FP, whereas Exhibit 2B captures the firm's CSR initiatives related to SDOH, categorization in SDOH measures, and HL impacts.

For these best-performing firms in their respective regions per the "J.D. Power U.S. Health Plan Study rating (2019)," we gathered qualitative data from their annual reports, CSR reports, and giving reports to analyze the SDOH related CSR initiatives undertaken by them. The four most common and popular programs undertaken by these firms are (a) Food Security, (b) Access to Healthcare, (c) Behavioral Health, and (d) Education & Employment improvements in their communities. These programs are an effective place for first-time firms or smaller firms that are cautious about return on investment (ROI) to start with. Affordable housing is a significant undertaking in terms of capital investment and coordination

of effort, and several of the firms in this sample are leading and supporting the communities with multi-year commitments, as detailed in Exhibit 2. There is limited SDOH spending data available, but on average, the major health plans spent, as a percent of net income, 0.11% of dollars on SDOH in 2017, 1.6% in 2020, and 0.67% in 2021(Velasquez et al., 2022). The spike in SDOH spending in 2020 is anticipated due to the aftermath of COVID.

Significant financial investments in SDOH programs are highlighted below in Exhibit 2:

Exhibit 2A: Firm's Performance (FP) as measured by AM Best, J.D. Power, and NCQA Ratings

Exhibit 2B: Firm's CSR Initiatives, SDOH Categorization, and Healthy Living

In 2019, Aetna and CVS donated $150M in community support through philanthropic investments, in-kind donations, volunteering, cause marketing, and in-store fundraising. In Jan 2019, together, CVS and Aetna announced a $100M investment through the Building Healthier Communities Program over five years (CVS Health, 2020).

Anthem Foundation invested $54M in open community commitments supporting 4,330 non-profit organizations to improve active lifestyle ($11.6M), cardiac health ($8.4M), cancer prevention ($5.2M), behavioral health ($2.9M), maternal health ($2M), diabetes prevention ($1.2M) and other support programs, such as access, disaster response and research ($3.4M) to address SDOH. In 2019, Anthem Foundation provided 101K volunteer hours as part of Anthem's Dollars for Doers program (Anthem, 2019).

In 2018, The BlueCross BlueShield (BCBS) Association, comprising 34 independent and locally operated Blue Cross Blue Shield companies, invested $382M in community health initiatives, $13M in employee donations, 572K Hours in employee volunteering (BCBS, 2019). BCBS sponsored Bluebikes program, Food security program, Healthy Hometown program, Post-hospital discharge integrated

communities support for social connectedness in several states to address SDOH. In 2018, BlueCross BlueShield Institute helped its members and beneficiaries in the identification and support of SDOH.

In 2018, Cigna contributed $24.3M in aggregated Cigna Giving through "Cigna Foundation, Civic Affairs, and Employee Volunteering." Cigna financed fifteen "Cigna Foundation World of Difference Grants" that mitigate health inequities and promote community-health navigation programs (Cigna, 2020). Also, Cigna announced a new $25M, five-year "Healthier Kids for Our Future" program.

In 2019, Highmark Health enterprise contributed $206.5M to an overarching social mission to develop "the stronger communities of healthier people." The giving programs provided health coverage and care to those unable to pay, including a United Way campaign and 100s of sponsorships and grants to support health, wellness, education, human services, arts, and other community-based organizations (CBOs) (Highmark Foundation, 2019). In 2020, to address social and emotional isolation, Highmark Delaware and Highmark Health Options implemented an innovative online social-care network, Aunt Bertha, that enables people to find resources and social-benefit organizations in their communities by (1) facilitating easy access to social services, (2) enabling not-for-profit organizations to collaborate, and (3) helping providers to integrate social-care into their value-chain (Highmark Foundation, 2019).

In 2019, The Humana Foundation (H.F.) invested $7.6M with 12 organizations, up from $7.4M invested with nine organizations in 2018. Investments with local organizations address food security, social connectedness, post-secondary attainment, employment, and financial asset security (Humana, 2019).

In 2018, Kaiser invested $200M in SDOH with Thriving Communities Fund to address the challenge of homelessness and the lack of affordable housing. In addition, in 2018, Kaiser spent more than $4M in specialty mental health and addiction medicine visits. Another Kaiser program commits $2M in seeking answers to significant challenges of our times "prevention of gun injuries and deaths" (Kaiser Permanente, 2019).

By 2019, UnitedHealthcare (UHC) invested $400M in addressing SDOH and improving affordable housing for underserved communities. This program provided for 80 affordable housing communities across the U.S., including more than 4,500 homes for needy people. Charitable contributions and community relations support for 2018 totaled $70M, supporting 2300 organizations and awarding nearly 2,500 scholarships totaling $20M since 2007 (UnitedHealth, 2019).

In 2019, UPMC Social Impact (UPMCSI) program addressed the health, socio-economic, and environmental needs of UPMC Healthplan members and neighborhoods. In 2017, UPMC invested $7.5M in sponsoring various community-enriching groups and establishments to address SDOH (UPMC, 2018). UPMCSI focuses on addressing: (1) food insecurity by providing nutritious meals, (2) homelessness by expanding affordable and supportive housing, (3) joblessness by creating employment opportunities for Medicaid members and individuals with disabilities, (4) healthcare transportation access, (5) healthcare coordination for those suffering from disabilities, (6) improved access and quality care for LGBTQIA individuals, (7) state-wide coordinated healthcare and human services, (8) early childhood needs, and (9) prevention of social isolation, especially for individuals with dementia (Schano, 2019; UPMC, 2018).

AvMed joins parent company SantaFe HealthCare and its affiliates in supporting health and wellness-related causes in the communities served. AvMed joins Feeding South Florida to spread fresh fruits and vegetables across the region each month with AvMed Mobile Pantry. AvMed coordinates outreach with the American Heart Association, the American Diabetes Association, and United Way (SantaFe HealthCare, 2019).

Together, Health Alliance Medical Plans and Carle (parent organization) spent $195M in community support in 2018. In addition, they provided $35M in charity care without any cost to those unable to pay, $44M in programming support to communities served. Leveraging Carle's partners, the community programs provide health services for the underinsured and uninsured, while mitigating the

addiction epidemic to enable HL for victims of domestic violence, sexual assault, and child abuse (Health Alliance, 2019).

HealthPartners' Regions Hospital is a HealthRise demonstration project in Minnesota. HealthRise program aims to reduce premature death from heart disease and diabetes among underserved communities. In 2018, Regions Hospital completed a three-year pilot program with the St. Paul Fire Department. The program has a community paramedic (CP) visiting the homes of recently discharged patients, those with barriers visiting a doctor, and those without traditional homecare. Other SDOH programs include (a) HealthPartners Community Health Worker Program aimed at mediating between providers and Medicaid members improving health through education, and (b) Methodist Hospital Good to be Home Program for safe transition from hospital to home (HealthPartners Institute, 2019).

Together with parent company Intermountain, SelectHealth supported SDOH in communities with the following programs: (a) charitable care and financial support to those unable to pay, (b) in-kind services through Intermountain caregivers and diagnostic testing vouchers, and (c) donations to not-for-profit social organizations aligned with organizational priorities. Intermountain Community Care Foundation supports federally qualified community healthcare centers and school clinics. Anchor institution work encourages development, stability, and economic progress in neighborhoods (Intermountain Healthcare, 2019).

Capital District Physicians Health Plan (CDPHP) supports several CBOs and welfare events to address SDOH: "Disease awareness and treatment, Community health and wellness, Safety net initiatives and organizations, Fitness for all ages, Youth development, Education and Arts, The disabled and elderly, Economic development, and College athletics." CDPHP is sponsoring "the Regional Food Bank of Northeastern New York's Patroon Land Farm," which will support cultivation and distribution of healthy produce to feed the underserved (CDPHP, 2019).

In 2019, "the Social Interventions Research and Evaluation Network (SIREN) launched the Gravity Project," a national collaborative to develop a systematic framework of use-cases by documenting social risk and factors related to preventive screening, treatment, and population health management.

Exhibit 2 provides early but robust evidence of these high-performing healthcare firms' commitment to SDOH, their formal CSR frameworks recognizing SDOH need with dedicated programs to promote community HL; consequently, these firms are being ultimately rewarded with high performance on financial, quality, and customer satisfaction fronts. This significant qualitative correlation across the entire sample size of firms is key to the validity and reliability of our propositions. This also validates SDOH responsibility as part of the systematic CSR framework can enable objective measurement of future impacts, such as a defined corporate policy on SDOH, percent of profit applied towards specific SDOH elements, outcomes achieved in terms of standard of living, and frequency/quality of social outreach programs. Finally, the study confirms the need to transform clinical staff's administrative tasks to link patients to CBOs successfully.

We propose that this phenomenon to support SDOH investment as a CSR responsibility needs to be widespread through the healthcare supply chain to nurture and sustain healthy communities successfully. The qualitative testing of our empirical model provides evidence that CSR and SDOH play an important role in sustaining HL while creating value and FP. This aligns with the deductive reasoning derived from the literature review and inductive reasoning based on our observations of the SDOH phenomenon.

7. ORIGINALITY OF THE STUDY AND CONTRIBUTIONS TO THE LITERATURE AND PRACTICE

This paper is a result of first research using quantitative and qualitative methodology and the grounded theory design to supplement CSR and SDOH literature by analyzing current efforts undertaken by healthcare firms across the U.S. to address the SDOH and the impacts felt by communities and firms.

The study advances CSR theory by contextually linking it with agency theory and stakeholder theory to integrate SDOH and FP. We provide the first large-scale assessment of SDOH concerning the investment commitments of insurers to improve HL in communities. Based on our results, predictions and suggestions are made regarding whether corporations can truly uplift SDOH in their communities, or whether their current attitudes and interests pose a barrier to investment in SDOH due to the "wrong pocket problem." This article has originality in drawing qualitative attention to challenges faced in implementing CSR programs that improve SDOH. The study provides insights on (1) the significance of enabling communities to overcome SDOH inequities, (2) specific SDOH programs that are proving to be impactful in promoting HL, (3) HL status of communities supported with SDOH investment and commitment by firms, and (4) whether the commitment of healthcare firms towards SDOH can be made an integral part of their CSR framework while aiding to their competitive advantage and performance. The study covers the best-performing healthcare insurance firms of various sizes on customer satisfaction in their respective regions in the U.S. The analysis is a fair representation of the U.S. and can provide generalizable results to advance the commitment of all stakeholders in the healthcare supply chain. Lastly, the study offers robust recommendations for addressing SDOH and an agenda for future research.

8. RESEARCH IMPLICATIONS AND RECOMMENDATIONS

Social welfare and health policy implications of our research follow: (1) exploration of the expanded CSR framework can shape governmental legislation, population health policy, supply chain collaboration, and firms' practices, (2) policymakers need to establish how to funnel healthcare dollars to promote risk-reward sharing and reimbursements for expanding the social safety net, (3) entire healthcare supply chain needs to be engaged into capital-intensive initiatives like "Affordable Housing," presently limited to big firms, and (4) social programs and new benefit designs should link and monitor all SDOH factors that span over multiple fragmented industries. Additionally, this research encourages policymakers to assess whether any healthcare reform or care model can be effective and sustainable without truly solving

for SDOH. Policymakers must draft population health policies that incentivize firms and their supply chains with upside and downside risks to engage with CBOs to mitigate SDOH inequities and measure longitudinal health outcomes. Corporate performance policy should incentivize C-suite executives and managers to prioritize social and health equity goals and the promotion of like-minded supply chains. In this regard, corporates need to model CSR-SDOH policies like quality assurance and environmental policies that are driven deeper into each function and its performance in the firm. Housing, food security, and behavioral health are three major areas of acuity that need to be prioritized by policymakers, public and private sectors, and CBOs for the biggest impact on health equity. CSR is potentially useful for aligning corporate and social goals. Both government (federal and state) and corporate policies must work in tandem to include non-financial and financial goals and incentives to effect the change-behaviors by influencing and aligning CEOs with community members impacted by SDOH deficits. These implications provide actionable agenda for the population health and CSR that prioritizes SDOH and makes real progress towards equity.

Managerial implications are 1) addressing SDOH requires healthcare firms to link with unconventional partners, such as housing authorities, food banks, employment agencies, and schools; 2) public and private healthcare firms need to collaborate closely with social enterprises and regulators to address SDOH financing and engage broader supply chain; and 3) long-term investments in SDOH can help develop sustainable and healthy communities, which in turn will drive down social inequities and enhance FP. Firms need to solve the perception of SDOH being a "wrong-pocket problem" similar to environmental responsibility. Effective risk reimbursement models need to be supported, as evidenced in pediatric primary care, where only 20% of children previously received developmental screenings nationally. This study encourages firms to benchmark CSR practice, SDOH commitment, and performance with peers in the value chain.

The study provides theoreticians with a systematic methodology and empirical model to explore the interplay amongst SDOH, CSR, HL, and FP constructs. It expands CSR theory and policy framework by integrating the responsibility for supportive SDOH in firms' communities. Supportive SDOH under CSR framework and their linkage to firm's performance enhance agency and stakeholder theories. Pedagogical implications include insights and motivation for educators to develop new training curriculums by integrating healthcare economics, social welfare, CSR, and SDOH.

By subjecting the broader datasets to our proposed model and applying stronger direct empirical regression analyses than the triple agency rating method used in this research, the findings from this study can be tested to benefit the global healthcare industry, including the country-specific healthcare models. Also, by applying our model to the new and existing enterprises that suffer from poor SDOH and social inequities, researchers and practitioners can test and improve its generalizability, develop effective social programming, and influence public and corporate policies.

Exhibit 3: Implications of the Study

9. OPPORTUNITIES AND AGENDA FOR FUTURE RESEARCH

Extant literature is based on limited publicly announced data (e.g., press releases, white papers) on SDOH investments. It does not thoroughly examine U.S. healthcare firms' current attitudes, commitments, and actions. Secondary data (qualitative and quantitative) from this study on CSR, SDOH, and FP provides directional results and insights on attitudes and commitments of healthcare firms in improving health inequities impacting their customers and communities, thereby recommending SDOH integration with the CSR framework. This study is limited to the 14 best-performing healthcare insurance firms; future research must expand on this scope. Other avenues for future studies are to (1) explore additional indicators for the SDOH, CSR, and HL constructs, (2) expand the dataset by including firms from other relevant sectors, (3) augment the study through longitudinal research tracking community SDOH outcomes to prove the causality of our propositions, (4) collect additional data on positive outcomes & pilots internationally, and

(5) develop more robust descriptive regression analyses on the foundation built here. Another limitation of this study is that the SDOH initiatives by the firms are at a local or national level based on the reporting by the firms or publicly available data, but the agency ratings are at the health plan level, which is typically local. Future studies can more directly analyze the effects of local SDOH-CSR investment on firms' performance and healthy living.

Major opportunities lie in accelerating systematic documentation and checkpoints around SDOH measurements and democratization of the SDOH data shared across the supply chain to benefit HL. In addition, the relaxation of regulations, modernization of data privacy and security policies, and public outlook towards health data require to undergo a significant change for effective SDOH resolution. This study does not represent the viewpoints of CBOs and SDOH-impacted communities, which opens up future opportunities. Finally, it paves the path for greater social innovation by integrating the efforts of public, private, and social enterprises to promote HL.

STATEMENTS & DECLARATIONS

Funding: Funding is not obtained for this research from any sources. The research has the pure purpose to advance the theory and practice of CSR and healthcare disciplines.

Competing Interests: No conflict of interest for any of the authors. General disclosure that Pankaj Jain works for one of the 14 healthcare firms which are presented in the dataset of this research paper. The selection of firms is done in an unbiased process based on reliable ratings from (a) the National Committee for Quality Assurance (NCQA, 2020) Health Insurance Plan Ratings 2019–2020 that measure healthcare effectiveness, customer satisfaction and process quality, (b) AM Best's rating (2020) of health insurance firms representing balance sheet strength, operating performance, business profile, and enterprise risk management, and (c) the J.D. Power U.S. Health Plan Study rating (2019) measuring customer satisfaction regarding billing and payment, cost, coverage and benefits, customer service, information and communication, and provider choice. Bhav Jain and Edward Christopher Dee do not have any conflict of interest to declare or any association with the firms.

Availability of Data and Material: The secondary data is used for this research. The data and material is available upon request.

Code Availability: The secondary data is used for this research. There is no coding done.

Author Contributions: All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Pankaj Jain and Bhav Jain. The first draft of the manuscript

was written by Edward Christopher Dee and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

Ethics approval: The secondary data is used for this research. It does not involve any human or animal subjects.

Consent to Participate: The secondary data is used for this research. It does not involve any human or animal subjects. The section is not applicable.

Consent to Publish: The secondary data is used for this research. It does not involve any human or animal subjects. The section is not applicable.

REFERENCES

1. Agency for Healthcare Research and Quality. (2016). National Healthcare Quality and Disparities Report chartbook on healthy living. Rockville, MD. AHRQ Pub. No. 16-0015-3-EF.
2. Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. (2007) Putting the S back in CSR: a multilevel theory of social change in organizations. Academy of management review.
3. AM Best (2020). "AM Best rating services." ambest.com (accessed January 6, 2020).
4. Anthem (2019). Anthem's 2018 Annual Report. Retrieved from https://ir.antheminc.com/financial-information/annual-reports; https://www.anthemcorporateresponsibility.com/cr/foundation/
5. Bardos, K.S., Ertugrul, M., & Gao, L.S. (2020). CSR, product-market perception, and firm value. Journal of Corporate Finance, 62, 101588.
6. Barnett, M. L. (2007). Stakeholder influence capacity and the variability of financial returns to CSR. Academy of management review, 32(3), 794-816.
7. BlueCross BlueShield (2019). Community Investment Report 2018. Retrieved from www.bcbs.com/investingincommunities
8. Capital District Physicians Health Plan (CDPHP) (2019). Annual Report 2019. Retrieved from https://www.cdphp.com/about-us/annual-report-2019
9. Carroll, A. B. (1991) The pyramid of CSR. Business horizons 34 (4): 39-48. https://doi.org/10.1016/0007-6813(91)90005.

10. Cigna (2020). Cigna 2019 Annual Report. Retrieved from https://www.cigna.com/about-us/investor-relations/annual-reports-and-proxy-statements
11. CVS Health (2020). Aetna and CVS 2019 CSR Report. Retrieved from https://cvshealth.com/social-responsibility/corporate-social-responsibility/annual-corporate-social-responsibility-reports
12. Gazzola, P. (2014) CSR and companies' reputation. Network Intelligence Studies 2 (3): 74-84. https://doi.org/10.1007/s10551-005-5841-2.
13. Gottlieb, L., Ackerman, S., Wing, H., & Manchanda, R. (2017). Understanding Medicaid managed care investments in members' SDOH. Population health management, 20(4), 302-308.
14. Health Alliance Medical Plans (2019). Health Alliance Medical Plans and Carle in the Community 2018. Retrieved from www.carle.org/impact
15. HealthPartners Institute (2019). Research and Education 2018 Highlights. Retrieved from www.healthpartnersinstitute.org
16. Highmark Foundation (2019). 2018 Giving Report – Planning for the Future. Retrieved from www.highmarkfoundation.org
17. Horwitz, L. I., Chang, C., Arcilla, H. N., & Knickman, J. R. (2020). Quantifying Health Systems' Investment In SDOH, By Sector, 2017–19. Health Affairs, 39(2).
18. Humana (2019). 2019 Annual Report. Retrieved from http://www.annualreports.com/Company/humanainc
19. Inleh, O., Bartlett J.L., & May, S. (2011) CSR and communication. The Handbook of Communication and CSR. Chichester: Wiley-Blackwell, 3-22. https://doi.org/10.1002/9781118083246.
20. Institute of Medicine (IOM), Crossing the Quality Chasm. 2001: National Academy Press, p.52.
21. Intermountain Healthcare and SelectHealth (2019). 2018 Report to the Community. Retrieved from https://intermountainhealthcare.org/annual-report-2018/
22. Ismail, M. (2009) CSR role in community development. Journal of International Social Research 2 (9).
23. Jain, P., Jain, B., Jain, U., & Palakodeti, S. (2022). Value Realization: An Unattained Challenge for Integrated Practice Units. American Journal of Managed Care, 28(6).

24. J.D. Power & Associates (2019). "Commercial member health plan satisfaction study (2019)." jdpower.com (accessed January 6, 2020).
25. Kaiser Permanente (2019). 2018 Annual Report. Retrieved from www.about.kaiserpermanente.org/annualreport
26. Lee M.D.P. (2008) A review of the theories of CSR. International journal of management reviews 10(1).
27. Marquit M. (2020). Best Health Insurance Companies: 2020 Retrieved from https://www.healthcare.com/best-health-insurance-companies-23478.
28. Mittal, V., Anderson, E.W., Sayrak, A., & Tadikamalla, P. (2005). Dual emphasis and the long-term financial impact of customer satisfaction. Marketing Science, 24(4).
29. National Committee for Quality Assurance (2020). "NCQA health insurance plan ratings 2019-2020." NCQA.org (accessed January 6, 2020).
30. ODPHP, Healthy People 2030 (2020). Washington, DC: U.S. Department of HHS, Office of Disease Prevention and Health Promotion (ODPHP).
31. Porter, E. M., & Kramer, R. M. (2006). Strategy & Society-The Link Between Competitive Advantage and CSR and Environmental Management. Harvard Business Review, 84, 12.
32. Porter, E. M., & Lee, T. H. (2013). The strategy that will fix health care.
33. Ross, S.A. (1973). The economic theory of agency. The American economic review, 63(2), 134-139.
34. SantaFe HealthCare and AvMed (2019). Retrieved http://www.santafehealthcarefl.org/about/fact-sheet/
35. Schano, N. (2019). UPMC Health Plan Announces New Social Impact Initiative. Retrieved from www.upmchealthplan.com/pdf/Releasepdf/2019_12_19.html
36. Tobin, G.A., & Begley, C.M. (2004). Methodological rigor within a qualitative framework. JAS, 48(4).
37. UnitedHealth (2019). Helping Build Healthier Communities. Retrieved from www.unitedhealthgroup.com
38. UPMC Insurance Services Division (2018). 2017 Annual Report "Ahead of the Curve". Retrieved from https://www.upmchealthplan.com/about/who-we-are/annualreport.aspx

39. Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterizing sample size sufficiency in interview-based studies. BMC medical research methodology, 18(1).

40. Velasquez, D. E., Srinivasan, S., & Figueroa, J. F. (2022). Trends in Social Spending by Private Health Insurers. Journal of General Internal Medicine, 1-3.

41. Vlachos, P.A., Tsamakos A, Vrechopoulos AP, & Avramidis PK (2009) CSR: attributions, loyalty, and the mediating role of trust. Journal of the Academy of Marketing Science 37 (2).

42. World Health Organization Commission on SDOH. Closing the gap in a generation: health equity through action on SDOH. Geneva (C.H.): WHO; 2008.

Exhibit 1: Research Model and Methodology - CSR, SDOH, Healthy Living, and Firm's Performance

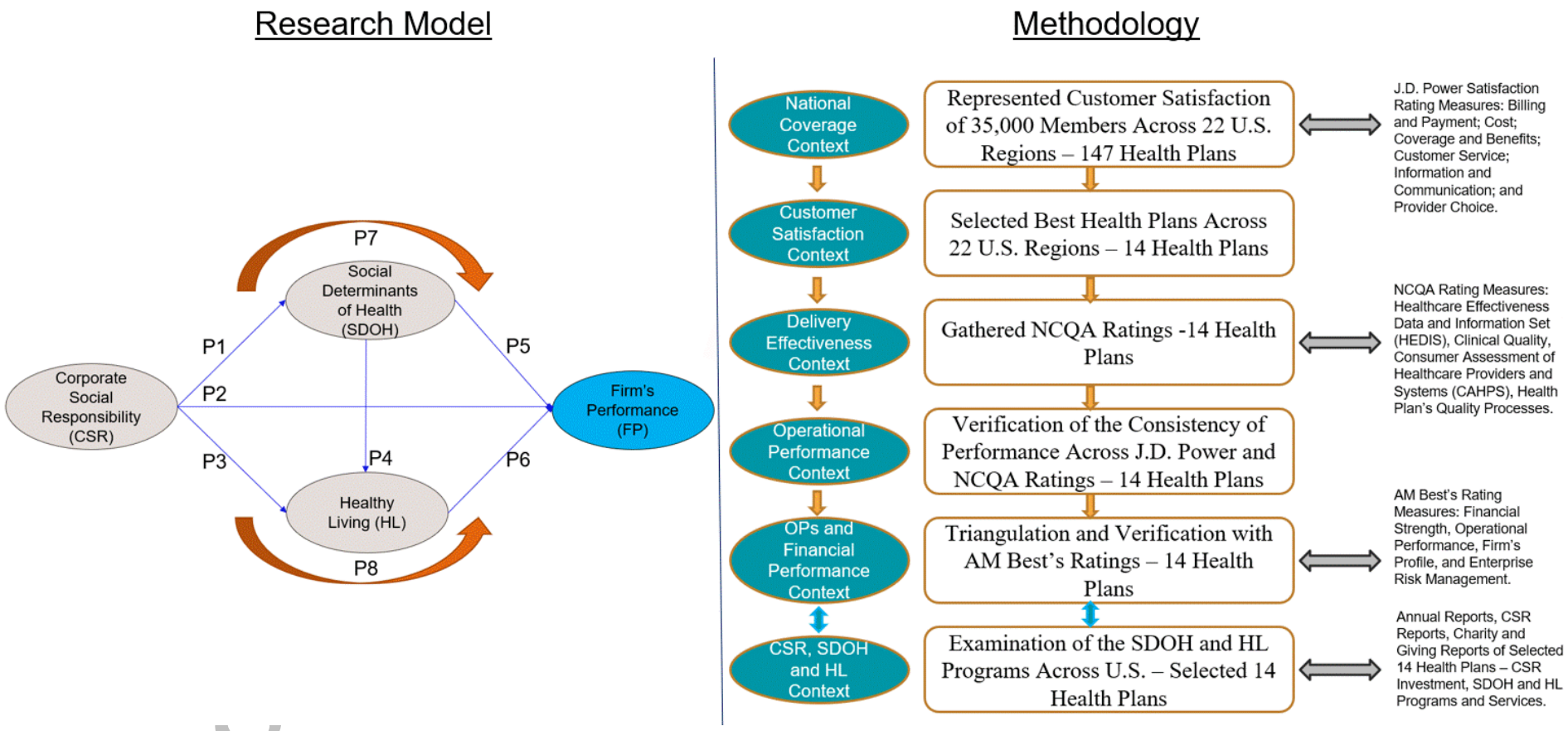

Exhibit 2A: Firm's Performance (FP) as measured by AM Best, J.D. Power, and NCQA Ratings

Organization	Region	A.M. Best Finanical Rating (2019)	J.D. Power Overall Customer Satisfaction Rating (2019)	NCQA Rating (2019)
Aetna (CVS Health, 2020)	All	A.M. Best financial rating (2019): A (Excellent)	J.D. Power (2019): "Among the Best" in overall customer satisfaction in various states	NCQA Rating (2019): 3.5 to 4.0 out of 5 (High-Mid to High Performer)
Anthem (Anthem, 2019)	All	A.M. Best financial rating (2019): A (Excellent) in most states'	J.D. Power (2019): "Among the Best" to "the Rest" in overall customer satisfaction in various states	NCQA Rating (2019): 3 to 4.5 out of 5 (Mid-High Performer)
Blue Cross Blue Shield Association (BlueCross BlueShield, 2019)	All	A.M. Best financial rating (2019): A (Excellent) in most states	J.D. Power (2019): "Among the Best" in overall customer satisfaction in Alabama, Arizona, Capital, Connecticut, Delaware, Massachusetts, Michigan, New Mexico, Oklahoma, Pennsylvania, Texas	NCQA Rating (2019): 3.5 to 4.5 out of 5 (High-Mid to High Performer)
Cigna (Cigna, 2020)	All	A.M. Best financial rating (2019): A (Excellent)	J.D. Power (2019): "Among the Best" in overall customer satisfaction in various states	NCQA Rating (2019): 3 to 4 out of 5 (Mid-High Performer)
Highmark (Highmark Foundation, 2019)	North Eastern, Mountain, Mid-Atlantic	A.M. Best financial rating (2019): A (Excellent)	J.D. Power (2019): "Among the Best" in overall customer satisfaction in various states	NCQA Rating (2019): 3.5 to 4 out of 5 (High-Mid to High Performer)
Humana (Humana, 2019)	East/South	A.M. Best financial rating (2019): A- (Excellent)	J.D. Power (2019): "Among the Best" in East South Central region, "Best Mail Order Pharmacy"	NCQA Rating (2019): 2.5 to 4 out of 5 (Low-Mid to High Performer)
Kaiser Permanente (Kaiser, 2019)	South, West, Northwest, Mid-Atlantic	A.M. Best financial rating (2019): Not Rated	J.D. Power (2019): "Top Performer" in overall customer satisfaction in various states	NCQA Rating (2019): 3.5 to 5 out of 5 (High-Mid to Highest Perf.)
Unitedhealthcare (UnitedHealth, 2019)	All	A.M. Best financial rating (2019): A (Excellent)	J.D. Power (2019): "Better than Most" to "the Rest" in overall customer satisfaction in various states	NCQA Rating (2019): 3.5 to 4.5 out of 5 (High-Mid to High Performer)
UPMC (Schano, 2019; UPMC, 2018)	North Eastern	A.M. Best financial rating (2019): A- (Excellent)'	J.D. Power (2019): "Among the Best" in overall customer satisfaction in PA	NCQA Rating (2019): 4 to 4.5 out of 5 in PA (High Performer)
AvMed (SantaFe HealthCare, 2019)	Florida	A.M. Best financial rating (2019): C++ (Marginal)	J.D. Power (2019): "Among the Best" in overall customer satisfaction in PA	NCQA Rating (2019): 3.5 out of 5 in FL (Mid Performer)
Health Alliance Medical Plans (Health Alliance, 2019)	Illinois-Indiana-Michigan	A.M. Best financial rating (2019): B++ (Good)	J.D. Power (2019): "Among the Best" in overall customer satisfaction in PA	NCQA Rating (2019): 3.5 to 4 out of 5 (High-Mid to High Performer)
HealthPartners (HealthPartners Institute, 2019)	Minnesota-Wisconsin	A.M. Best financial rating (2019): Not Rated	J.D. Power (2019): "Among the Best" in overall customer satisfaction in MN-WI	NCQA Rating (2019): 4.5 out of 5 (High Performer)
SelectHealth (Intermountain Healthcare, 2019)	Mountain	A.M. Best financial rating (2019): Not Rated	J.D. Power (2019): "Among the Best" in overall customer satisfaction in ID, UT	NCQA Rating (2019): 3.5 to 4 out of 5 in ID, UT (Mid to High Performer)
Capital District Physicians Health Plan (CDPHP, 2019)	New York	A.M. Best financial rating (2019): Not Rated	J.D. Power (2019): "Among the Best" in overall customer satisfaction in NY	NCQA Rating (2019): 4.5 to 5 out of 5 in NY (Mid-High to Highest)

Exhibit 2B: Firm's CSR Initiatives, SDOH Categorization, and Healthy Living

Organization	Region	SDOH related CSR Initiatives and Partnerships	SDOH Category
Aetna (CVS Health, 2020)	All	* In Jan 2019, together CVS and Aetna announced $100M investment through Building Healthier Communities Program over 5 years. * In 2019, Aetna and CVS donated $150M in community support through philanthropic investments, in-kind donations, volunteering, cause marketing and in-store fundraising. * In 2016, the Aetna foundation (AF) funded programs across the country that ranged from increasing health food access and cultivation techniques for Sioux Indians in Minnesota, mobile preventative health education in Florida elementary schools on diet, nutrition and stress management, and providing employment opportunities for urban students in Ohio. * Aetna's partnership with US News & World that aims to identify and reward over $1.1 million to community programs if they improve population health outcomes. Programs such as food security initiatives and transportation are measured if they provide steady access to nutritional meal options or decrease gaps in healthcare transportation access. * Aetna Foundation forged a partnership with Florida International University (FIU) to help medical students understand deeply-rooted SDOH at the local level. * Aetna's "Spotlight Award" program - 10 community programs $25,000 to create healthier communities by addressing behavioral and environmental factors of health.	* Access to Healthcare * Food Security Program * Transportation Program * Academic Partnerships * Behavioral Health
Anthem (Anthem, 2019)	All	* Anthem Foundation invested $54M in open community commitments supporting 4,330 non-profit organizations. 101K volunteer hours through Anthem's Dollars for Doers program in 2019. * Programs to improve active lifestyle ($11.6M), cardiac health ($8.4M), cancer prevention ($5.2M), behavioral health ($2.9M), maternal health ($2M), diabetes prevention ($1.2M) and * Other support programs, such as access, disaster response and research ($3.4M) were also promoted to address SDOH.	* Behavioral Health * Healthy Meals & Adult Daycare * In-Home Care &
Blue Cross Blue Shield Association (BlueCross BlueShield, 2019)	All	$382M in community health initiatives, $13M in employee donations, 572K Hours in employee volunteering. * Sponsor of Bluebikes program in several states, Food security program in several states, Healthy Hometown program to address SDOH, Post-hospital discharge integrated communities support for social connectedness. Thrive 18 program in Pittsburgh provides reliable and supportive community-based network for neighborhoods, community healthcare and social-care organizations through individual outreach and improved data collection to track enhancement in healthy living outcomes. "The Power of We Scholarship" encourages community inclusion in healthcare and addresses care-gaps among minorities in Tennessee. * Blue Cross Blue Shield Institute (BCBSI) and CVS are partnering to address issues that are inextricably linked to health outcomes which greatly improve when people have access to pharmacies. * The BCBS Institute and Lyft will collaborate to dispatch rides in neighborhoods with limited public transit access and low rates of vehicle ownership.	* Food Security Program * Social Connectedness * Access to Healthcare * Financial Asset Security * Behavioral Health * Transportation * Pharmacy Access
Cigna (Cigna, 2020)	All	Grants" that mitigate health inequities and promote community-health navigation programs (Cigna, 2020). Also, Cigna announced new $25M, five-year "Healthier Kids for Our Future" program. * "Provided the Health Improvement Tour at 446 events in 252 cities, offering over 25,000 free biometric screenings and health coaching to communities since 2016." * "Logged 80,529 hours of employee volunteer service valued at over $2 million. Provided over 600 hours of skill-based community volunteering and over 100 hours of pro bono work from Cigna legal associates." * "Packed more than 3.6 million meals for Feeding Children Everywhere since 2013 for hungry children. Donated over 3,000 pounds of food to a Connecticut-based regional food bank."	* Food Security Program * Social Connectedness * Access to Healthcare * Financial Asset Security * Behavioral Health
Highmark (Highmark Foundation, 2019)	North Eastern, Mountain, Mid-Atlantic	* In 2019, Highmark Health enterprise contributed $206.5M to an overarching social mission to develop "the stronger communities of healthier people." The giving programs provided health coverage and care to those who are unable to pay for services, included a United Way campaign, and 100s of sponsorships and grants to support health, wellness, education, human services, arts, and other community-based organizations (Highmark Foundation, 2019). * "In 2018, Highmark Foundation gave more than $2.6 million through 123 grants to support charitable organizations, hospitals, and schools that develop programs to combat chronic disease, support veterans, reduce barriers, and increase access to care in sustainable, innovative and replicable ways." * "In 2018, the Highmark Foundation awarded 119 grants in three funding priority areas: Chronic Disease, Family Health and Service Delivery System." * In 2020, to respond to the problem of social and emotional isolation, Highmark Delaware and Highmark Health Options implemented an innovative online social-care network, Aunt Bertha, that enables people to search & find resources in their local communities and social-benefit organizations by (1) facilitating easy access to social services, (2) enabling not-for-profit organizations to collaborate, and (3) helping providers to integrate social-care into their value-chain (Highmark Foundation, 2019).	* Access to Healthcare * Healthy Meals, Food Security * Transportation * In-Home Personal Care * Education & Employment
Humana (Humana, 2019)	East/South	* In 2019, The Humana Foundation (HF) invested $7.6M with 12 organizations, up from $7.4M invested with 9 organizations in 2018. * Investments with local organizations address food security, social connectedness, post-secondary attainment and sustaining employment, and financial asset security (Humana, 2019). * "These organizations are located in eight Humana Bold Goal communities, places where Humana is working to achieve a goal of helping people improve their health 20 percent by 2020 and beyond. These 12 investments range from $400,000 to $1,000,000.	* Food Security Program * Education & Employment * Financial Asset Security * Behavioral Health
Kaiser Permanente (Kaiser, 2019)	West, Northwest, Mid-Atlantic	* In 2018, Kaiser invested $200M in SDOH with Thriving Communities Fund to respond to the challenge of homelessness and the lack of affordable housing. * In 2018, Kaiser spent more than $4M in specialty mental health and addiction medicine visits. * Another Kaiser program commits $2M in seeking answers to one of the most significant challenges of our times "prevention of gun injuries and deaths" (Kaiser Permanente, 2019).	* Affordable Housing Pilots * Food Security Programs * Behavioral Health Programs * Safety Programs
Unitedhealthcare (UnitedHealth, 2019)	All	across various regions in the U.S., including more than 4,500 homes for the needy people. * Charitable contributions and community relations support provided by UnitedHealth (UHC) for 2018 totaled $70M, supporting 2300 Organizations and awarding nearly 2,500 scholarships totaling $20M since 2007 (UnitedHealth, 2019). * In a UHC study in Arizona, "emergency room admissions dropped 60 percent and total cost of care was cut in half for people who enrolled in a housing program. Partnered with Enterprise Community Investment, Greater Minnesota Housing Fund, US Bank." In Ohio, UHC partnered with Ohio Association of Foodbanks, East End Neighborhood House, Helen Keller International, and Senior Citizen Resources to address transportation, food security, and vision care. This integration of resources will build a strong clinical and social services system for their communities. * "UHC awarded grants to the Association of Arizona Foodbanks to combat food insecurity, as well as VisionQuest and 20/20 and Brighter Way of Arizona to offer dental and vision screenings and immunizations."	* Affordable Housing Pilots * Food Security Programs * Health Programs * Interpersonal Disability Care
UPMC (Schano, 2019; UPMC, 2018)	North Eastern	* In 2017, UPMC invested $7.5M in sponsoring and supporting a variety of community enriching groups and establishments to address SDOH (UPMC, 2018). * UPMCSI focuses on addressing: (1) food insecurity by providing nutritious meals, (2) homelessness by expanding affordable housing and permanent supportive housing, (3) joblessness by creating employment opportunities for Medicaid members and individuals with disabilities, (4) healthcare access by providing transportation, (5) improved coordination of healthcare for those suffering with disabilities, (6) improved access and quality care for LGBTQIA individuals, (7) state-wide coordinated healthcare and human services, (8) early childhood needs, and (9) prevention of social isolation, especially for individuals with dementia. * In 2017, UPMC invested $7.5M in sponsoring and supporting a variety of community enriching groups and establishments to address SDOH.	* Access to Healthcare * Food Security * Transportation * Affordable Housing * Education & Employment
(SantaFe HealthCare, 2019)	Florida	* AvMed joins Feeding South Florida to spread fresh fruits and vegetables across the region each month with AvMed Mobile Pantry. Coordinates outreach with the American Heart Association, the American Diabetes Association and United Way. * AvMed joins parent company SantaFe HealthCare and its affiliates in supporting health and wellness-related causes in each community it serves.	* Food Security * Health & Wellness Programs
Health Alliance Medical Plans (Health Alliance, 2019)	Illinois-Indiana-Michigan	* Together, Health Alliance Medical Plans and Carle (parent organization) spent $195M in community support in 2018. * They provided $35M in charity care without any cost to patients who could not pay. * $44M in programming support to communities served. Leveraging Carle's partners, the community programs are providing health services for the underinsured and uninsured. This is also mitigating the addiction epidemic besides enabling healthy living and support for the victims of domestic violence, sexual assault and child-abuse.	* Access to Healthcare * Behavioral Health * Safety * Protection for Child Abuse
HealthPartners (HealthPartners Institute, 2019)	Minnesota-Wisconsin	* HealthPartners' Regions Hospital was one of three HealthRise demonstration projects in Minnesota. HealthRise program aims to reduce premature death from heart disease and diabetes among underserved communities in the St. Paul area. * In 2018, Regions Hospital completed a three-year pilot program with the St. Paul Fire Department. A community paramedic (CP) visited the homes of patients who recently left the hospital, had barriers visiting a doctor and did not qualify for traditional home care. Other SDOH programs include: (a) HealthPartners Community Health Worker Program aimed at mediating between providers and Medicaid members improving health through education, and (b) Methodist Hospital Good to be Home Program for safe transition from hospital to home.	* Health & Wellness Programs * Education * Safety
SelectHealth (Intermountain Healthcare, 2019)	Mountain	* Together with parent company Intermountain, SelectHealth supported SDOH in communities with the following programs: (a) provide charitable care and financial support to those unable to pay; (b) provide in-kind services through Intermountain caregivers and diagnostic testing vouchers for low-income patients; and (c) donations to not-for-profit social organizations aligned with Intermountain identified health priorities. Intermountain Community Care Foundation supports federally qualified community healthcare centers and school clinics. Anchor institution work encourages development in the community, growth, stability, and economic progress in neighborhoods.	* Health & Wellness Programs * Education & Employment * Safety
Capital District Physicians Health Plan (CDPHP, 2019)	New York	* Capital District Physicians Health Plan (CDPHP) supports a number of community organizations, social activities, and welfare events to address SDOH: "Disease awareness and treatment, Community health and wellness, Safety net initiatives and organizations, Fitness for all ages, Youth development, Education and the cultural arts, The disabled and elderly, Economic development, and College athletics." * CDPHP is sponsoring "the Regional Food Bank of Northeastern New York's Patroon Land Farm," which will support cultivation and distribution of healthy produce to feed the underserved.	* Health & Wellness Programs * Education & Employment * Food Security * Behavioral Health

Exhibit 3: Implications of the Study

Implications	Synopsis
Social Welfare and Health Policy Implications	* Exploration of the expanded CSR framework can shape governmental legislation, population health policy, supply chain collaboration, and firms' practices * Policymakers need to establish how to funnel healthcare dollars to promote risk-reward sharing and reimbursements for expanding the social safety net * Entire healthcare supply chain needs to be engaged into capital-intensive initiatives like "Affordable Housing," presently limited to big firms * Housing, food security, and behavioral health are three major areas of acuity that need to be prioritized by policymakers, public and private sectors, and CBOs for the biggest impact on health equity * Social programs and new benefit designs should link and monitor all SDOH factors that span over multiple fragmented industries * Policymakers to assess whether any healthcare reform or care model can be effective and sustainable without truly solving for SDOH * Policymakers must draft population health policies that incentivize firms and their supply chains with upside and downside risks to engage with CBOs to mitigate SDOH inequities and measure longitudinal health outcomes * CSR is potentially useful for aligning corporate and social goals. Both government (federal and state) and corporate policies must work in tandem to include non-financial and financial goals and incentives to effect the change-behaviors by influencing and aligning CEOs with community members with SDOH deficits
Theoretical Implications	* Expanded CSR theory and policy framework with the integration of responsibility for supportive SDOH in the communities where firms operate * Proposed methodology and empirical model integrates CSR, SDOH, HL, and firm's performance constructs * Supportive SDOH under CSR framework and linkage to firm's performance enhance agency and stakeholder theories * Pedagogical implications include insights and motivation for educators to develop new training curriculums by integrating healthcare economics, social welfare, CSR, and SDOH
Managerial Implications	* Firms to benchmark CSR practice, SDOH commitment, and performance with peers in the value chain * Addressing SDOH requires healthcare firms to link with unconventional partners, such as housing authorities, food banks, employment agencies, and schools * Public and private healthcare firms need to collaborate closely with social enterprises and regulators to address SDOH financing and engage broader supply chain * Long-term investments in SDOH can help develop sustainable and healthy communities, which in turn will drive down social inequities and enhance FP * Firms need to solve the perception of SDOH being a "wrong-pocket problem" similar to environmental responsibility * Effective risk reimbursements models need to be supported, as evidenced in pediatric primary care, where only 20% of children previously received developmental screenings nationally * Corporate performance policy should incentivize C-suite executives and managers to prioritize social and health equity goals and the promotion of like-minded supply chains. In this regard, corporates need to model CSR-SDOH policies like quality assurance and environmental policies that are driven deeper into each function and its performance in the firm