WHITE PAPER: SOUTH ASIAN HEALTH DISPARITIES

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Introduction

The South Asian American population includes individuals tracing their heritage to Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka (Figure 1). The subgroup was identified as the fastest growing major ethnic group in the United States between 2000 and 2010 [South Asian Americans Leading Together (SAALT, 2015)].[1] South Asians represent a quarter of the world's population, yet there is sparse literature on their trends in health, and their determinants of health.

The profile of American residents of South Asian descent are as diverse as their homeland. Some are refugees, some are immigrants, while others were born and raised in the U.S. The diversity is reflected in socio-economic demographics, as well as health care practices. This diversity is difficult to tease out or account for in causality; making it difficult to plan health care initiatives or products. This white paper results from a review of current literature. It must be stated, however, that more research is needed to better equip us with effective health solutions that explore and address the unique needs of the South Asian population.

What are disparities?

As a group, South Asians experience four times the risk of heart disease compared to the general population resulting in a far greater chance of having a heart attack by the age of 50 among other health issues (Stanford, 2015).[2] South Asians living with diabetes have a higher mortality rate than other ethnic groups due to micro and macrovascular complications at the time of the diagnoses (Shah and Kanaya, 2014).[3] One important complication of diabetes in this group is cardiovascular disease.[3]

What are the causes of these disparities?

Health disparities in the South Asian community can be traced to a number of possible causes. Socioeconomic variables, including education, culture, language, health care behaviors, and attitudes are important amongst other principal factors (Gany, Palaniappan, Prasad et al, 2019).[4] Family and trusted community sources play a vital role in promoting research that helps the public find effective ways to resolve these disparities.[4]

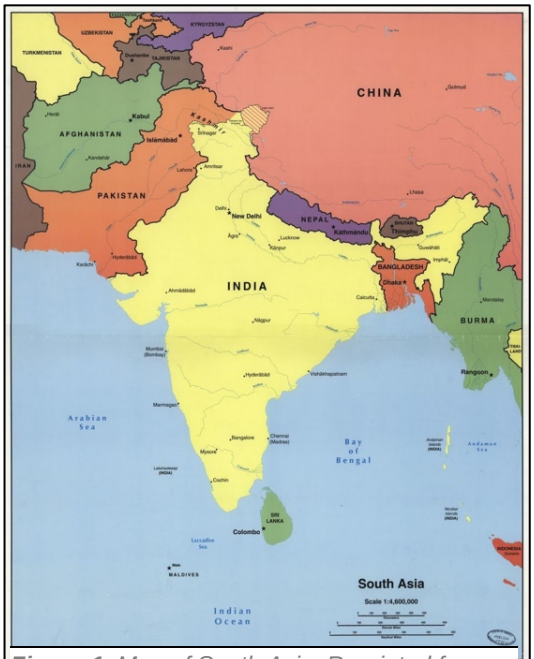

Figure 1. *Map of South Asia. Reprinted from the Library of Congress, 1998.*[25]

Cardiovascular disease (CVD)

1) Higher levels of ectopic (in the organs) and visceral fat (around the organs) are considered risk factors for CVD and other conditions, regardless of ethnicity. In this population, however, risk is likely to start at a lower body mass index (BMI) (23.0 versus 25.0, respectively). Therefore, obesity is not a good indicator of risk for cardiovascular disease among South Asians. (Mongraw-Chaffin et al 2018).[5]

2) Compared to the general population, South Asians develop heart disease a decade earlier than the general population, putting them at a four times greater risk to develop the condition (Mirsa et. al, 2019).[6] Besides the risks of greater ectopic and visceral fat, this increased risk could be due to having lower HDL (good cholesterol) levels (Volgman et al 2018).[7]

Diabetes

1. Due to greater amounts in distribution of fat tissue, diabetes risk increases at a BMI of 23.0, which is lower than the traditional cutoff of 25.0 (Unnikrishnan et al 2018; Wijetunge et al. 2019).[8,9]
2. The American Diabetes Association advises that testing for diabetes should be considered for all Asian American adults with a BMI of 23 or higher (Hsu et al 2015).[10]
3. The prevalence of Type 2 diabetes mellitus (T2DM) among South Asians is significantly higher at 26%, in comparison to African Americans (18%), Hispanics (17%), and Chinese Americans (13%), which increases the need for widespread testing and treatment (Flowers et al 2019).[11]
4. There is a higher prevalence of complications such as macrovascular disease (15.7% vs. 9.4%) and microvascular disease (27.3% vs. 16.5%) in South Asians newly diagnosed with T2DM in comparison to Europeans (Shah and Kanaya, 2014).[3]

Cancer prevalence

Multiple articles reveal nuanced trends among Americans of Asian descent. Nelson (2016),[12] as well as Tran, Udaltsova, Li, and Klatsky (2018) agree that Asians in general have an overall lower cancer mortality rate when contrasted with non-Hispanic white Americans. South Asians have among the lowest rates for lung and colorectal cancers (Nelson, 2016).[12]

Nelson adds, however, that the trends in breast cancer, lung cancer, and ovarian cancers are moving upward (2016).[12] Tran, Udaltsova, Li, and Klatsky (2018)[13] highlight the observation that when data sets are adjusted for lifestyle factors such as smoking, and body mass index – the cancer rates become comparable to those of white Americans.

These numbers mirror a similar trend among South Asians worldwide. Jamal, Torre, Soerjomataram, and Bray (2019) state that “Cancer rates in the region vary widely, with nearly a fourfold difference across countries.[14] Incidence rates are higher in South-Eastern Asia, and highest in the overall region in the Republic of Korea (314 cases per 100,000 population). In contrast, lower rates are seen in many countries in South Asia, including Bhutan, Sri Lanka, and India (fewer than 90 cases per 100,000)” (p. 56).[14]

Nelson (2016) discusses that although these rates are lower, the tendency for the statistical differences to disappear when factors such as smoking and sedentary lifestyle is held constant, indicate that acculturation to the Western lifestyle may pose a health risk for this population.[12] This data may help in projecting and planning for disease prevention and management moving forward. Screening for risk factors, as well as developing programs that focus on prevention strategies against viral hepatitis, smoking, obesity, and stress can lead to improved health outcomes and prevent suffering and cost for South Asian Americans

Stress and mental health

The findings from the current literature review highlight that further research on mental health among South Asians is a crucial need. Although South Asians have been identified as the fastest growing subgroup in the United States, they are underrepresented in health care research (Rastogi et. al, 2014).[15] As a result, limited information exists when it comes to the prevalence of mental illness and symptom presentation in this population.[15]

The focus group study of clinicians led by Rastogi et.al, (2014)[15] identified that generational differences influence symptom presentation and management. In younger South Asians (<40), stress was reported as the most common symptom. The symptoms of stress and challenges in younger South Asians are in correlation with acculturation.

Meanwhile, in older South Asians, anxiety disorder, psychosis, and severe depression were the primary symptoms. The authors noted that South Asians are more comfortable with the words “stress, anxiety, or weakness” over medical terms such as major depression or psychosis. This is primarily related to the stigma and denial associated in the treatment of mental illness.[15]

Massod et al (as cited in Lubin & Khandai 2017)[16] noted that compared with other Americans, there are smaller number of South Asians diagnosed with mood disorders and anxiety-related conditions. This, despite the fact that more South Asian women meet the criteria for DSM-IV diagnosis for anxiety and mood disorders. The authors explain that this may be due to a culturally different reaction to life-stress, their hesitation in reporting psychiatric illness, their preference for informal support groups (friends and communities), and their fear of the stigma of mental illness.[16]

Maternal health

There is a rarity of data on South Asian health (Gany, Palaniappan, Prasad et al, 2019).[4] This is true even more so about maternal and child health, evidenced by the meager literature found during this team’s review. Despite previously identified disparities in health identified by the Institutes of Medicine in 2001, a lack of scientifically reliable published information exists.

South Asian immigrant women are at greater risk for gestational diabetes compared to female Caucasians born in the United States. Women from Bangladesh are the most prone to developing gestational diabetes followed by women from India, Sri Lanka, and Pakistan. (Sanchalika & Theresa, 2015).[17]

Several health disparities have been documented for South Asians in the domain of maternal health. Publications in 2013 reported the role of anemia in poorer health outcomes among pregnant South Asian women. (Haider et al, 2013, Stevens et al, 2013, Sukrat et al, 2013).[18,19,20] Rahman et al refined on this initiative in their 2019 paper – a systematic review and meta-analysis that “estimated the pooled prevalence of anemia, the association between maternal anemia and pregnancy outcomes, and the Population Attributable Fraction (PAF) that are due to anemia in low- and middle-income countries” among publications from 1966 through 2015 (Rahman, Abe, Rhaman, Kanda, Narita, Bilbao, Ota, Gilmour, and Shibuya, 2016, p495).[21]

The authors found that the pooled prevalence of anemia among South Asians, Africans, and South Americans was higher than those of East-West Asians. The study found positive associations between first- and second-trimester anemia with low birth weight, preterm birth, and perinatal/neonatal mortality. This trend was strongly associated with low income countries of origin – which the authors attribute to higher rates of malaria and poor nutrition - being underweight, and iron deficiency (p499).[21] This risk of maternal anemia-related perinatal mortality was most shown among women from Ghana, Pakistan, India, and Malawi. The risk of maternal anemia-related low birth weight was most shown among women from Pakistan, Bangladesh, and Ghana. The authors discussed that war, internal conflict, and lack of effective health financing may be contributing factors to these associated risks.
In 2012, Drysdale, Ranasinha, Kendall, Knight, and Wallace[22] published results showing that women born in South Asia had a higher risk of stillbirth than women born in Australia. They presented a more nuanced analysis of maternal health and pregnancy outcomes. This followed the 2011 data published by Teede, Harrison, Teh, Paul, and Allan – stating that South Asian women were at a higher risk of gestational diabetes.[23]

Gibson-Helm et al expanded on this work[24] and analyzed data (in their 2015 work) from 1,930 women of Asian descent, dividing the data into two further categories: women from Humanitarian Sourced Countries (HSCs) and

those that were not from HSCs. Their data showed that women from HSCs needed an interpreter during their clinic visits for prenatal and maternal care, and that their general health was poorer –multiparity at age 20, BMI > 25, pre-existing diabetes, previous Caesarian birth, and anemia and vitamin D insufficiencies. They had increased risks for poorer or no pregnancy care attendance, were late to book their visits, and had more post-term births (p.147-148).[24]

Authors have discussed some key recommendations for closing gaps in perinatal health for South Asians. They include:

- Improving staff knowledge and attitudes about the unique needs of South Asian women
- Engaging women in more participative decision making about their maternal care
- Providing an interpreter
- Preventing teen pregnancy
- Identifying and correcting anemia and vitamin deficiencies
- Improving access to care, as well as coverage for prenatal visits and early ultrasonography

What is Cigna doing to help reduce these disparities?

Cigna understands the importance of addressing health disparities that are affecting the South Asian population and is working to help close these gaps. Read more about some of our efforts, which include clinical interventions, diversity and inclusion activities, cultural competency training and resources, as well as community outreach.

For our employees:

- Established the employee-led Aspire Enterprise Resource Group (ERG). The goal of this ERG is to inspire, empower, and retain our Asian/South Asian colleagues with a focus on personal and professional development that will drive grassroots innovation in support of our business, our partners, and our community.
- Sponsored professional development sessions with senior leaders and external speakers surrounding career advancement and addressing cultural bias.
- Supported Aspire ERG member representation at the Ascend Pan Asian Leaders national conference for executive leadership insight learning series, sponsored by the Cigna Office of Diversity and Inclusion.
- Developed the three-part *Diabetes Among South Asian*s cultural competency training for clinical staff.
- Created an educational session on Asian Immigrant Health Implications for primary care in partnership with the University of Pennsylvania, Department of Family Medicine and Community

For our customers:

- Seven percent of our U.S.-based workforce is Asian/South Asian.
- Sponsored internal annual Innovation Tournament focused on proactive mental health support, as well as predictable and affordable health care.
- Developed the three-part *Diabetes Among South Asians* cultural competency program with patient brochures available in Hindi, Nepali, and Urdu languages.
- Developed Asian Indian Maternity Advocacy Program through Cigna Global Health Benefits (GHB) addressing unique cultural needs and expectations of South Asian women during pregnancy and postpartum.
- Participated in external cultural presentation-South Asian Mental Health Panel: Workforce Strategy Conference hosted by Business Group on Health (2020).

Health. ➢ Hosted mental health panels and mindfulness sessions focused on Asian American Pacific Islander (AAPI) community issues. ➢ Facilitated Innovation Education sessions to promote design thinking in health care.	
For our health care professionals: ➢ Promoted thought leadership on health disparities. ➢ Created the Cultural Competency and Health Equity Resources website, which includes:: o A podcast about health equity and diabetes among South Asians. o Training for providers specific to the South Asian community and their health care needs. o Additional toolkits, videos, articles and training, geared specifically to providers.	**For the community:** ➢ Corporate sponsor of the National Association of Asian American Professionals (NAAAP). ➢ Hosted employee walk/run and yoga events to raise funds for the yearly American Diabetes Association (ADA) Tour de Cure fundraiser (2018/2019). ➢ Conducted South Asian Diabetes Awareness Campaign and health screenings at the Dragon Boat and Asian Festival in Hartford, CT (2016). ➢ Collaborated with 'Sewa-Asian Indian Family Wellness' for their annual health and resource fair-A1c/Lipid panel screening and education (2019). ➢ Chennai, India flood relief (2016): Aspire ERG hosted a bake sale to raise funds for the relief efforts. Cigna Foundation donated $10K grant to Oxfam. ➢ Nepal Earthquake Relief Response (2015): Aspire ERG hosted a bake sale/individual contributions matched by Cigna; Cigna Foundation donated: $10,000 to Samahope and$25,000 to Red Cross ➢ Cigna Foundation World of Difference grant (2014) to Arogya World to create and distribute chronic disease prevention information through mobile phone apps in India.

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