skewed towards any particular side. There are no apparent modal peaks. Evidently, respondents favored questions 1, 2, 4, 6, and 8. Questions 3, 5, 7, and 9 seemed unfavorable to respondents, for they had the lowest response rates.

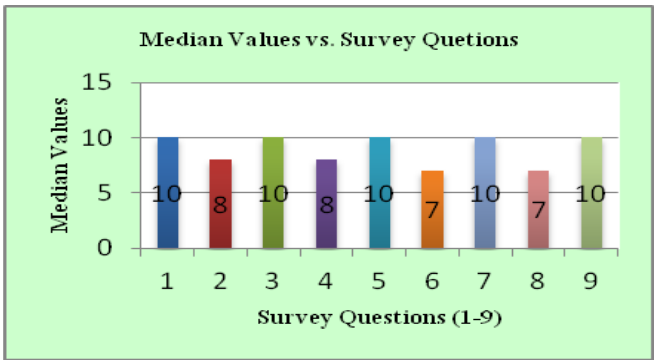

Figure 3: Median Values vs. Survey Questions

The median values vs. survey questions display is spread from a low value of 7 to a high value of 10. The median of the distribution is 10. The distribution is not skewed towards any particular side. There are no apparent modal peaks. Questions 1, 3, 5, 7, and 9 had median response values of 10, indicating very strong respondent approval.

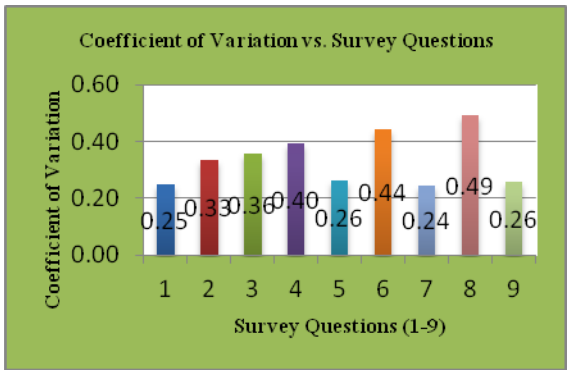

Figure 4: CV vs. Survey Questions

The coefficient of variation (CV) is the ratio of the standard deviation to the mean. Essentially, the CV measures the percentage of the results that equals the mean value of the entire data set. It is an effectual measure of distirbution variability. CV values less than 1 indicate a low variance distribution. The coefficient of variation vs. survey questions display is spread from a low value of 0.24 to a high value of 0.49. As shown above, each survey question (1-9) possesses a CV value that is less than 1. This indicates that the data collected have low variance. The median of the distribution is 0.33. The distribution is not skewed towards any particular side. There are no apparent modal peaks.

7. Summary, Conclusions, Recommendations

This research project provides a comprehensive analysis of the association between the built environment and human health. An overview of salient diseases that have had a profound impact on human development is reported. Illnesses reviewed include: heart disease, cancer, lung disease, obesity, and diabetes mellitus. Notable statistics, causes, symptoms, and treatment options for each disease are conveyed. Following this examination, the project discusses the connection between the onset of such diseases and physical activity, providing specific information and data for each illness. For instance, the American Cancer Society recommends that adults perform at least one hundred fifty minutes of mild to intense physical activity each week. Subsequently, a history of the modern built environment is presented. Since the advent of World War II, the built environment has profoundly affected human health. Relatively inexpensive automobiles and favorable government policies in regards to housing development and zoning are contributable factors to the urban sprawl movement and the development of the built environment. Results from complementary research reports regarding urban design, illness, and physical activity are also included to support the correlation between the built environment and human health. Other urban design approaches, such as the "new urbanism" movement and transit oriented development (TOD, are investigated to provide possible alternatives that promote walkability and interconnectedness of communities, thus rendering them favorable to pedestrians and bicyclers. Moreover, the results of a survey questionnaire administered around the University of Delaware campus are provided. Statistical data, frequency tables, and bar charts are completed for most questions. Analysis of the results is provided, which convey respondent preferences and sentiments towards the built environment and human health. Results indicate that respondents believe that there is a clear shortage of safe and secure walking and bicycling facilities in most modern developments, and that the built environment is a major contributor to one's overall health. Additionally, the majority of respondents would like to have safe and secure pedestrian and bicycling facilities near their homes, places of work, grocery stores, areas of recreation, school communities and major entertainment centers.

The objectives for this research report included:

A. Conduct a survey of literature about the most common diseases in the United States
B. Understand how and why physical activity can abridge or even obviate these diseases, through reading and studying the most relevant literature
C. Conduct a survey of literature on how and why our built environment has been shaped the way it is i.e. unfriendly to walkers and bicyclists
D. Conduct a random survey of residents in different communities in and around the University of Delaware campus to understand their preferences with regards to walking and bicycling

A. The research project provides a thorough analysis of the most common diseases in the United States. Illnesses that are reviewed include: heart disease, cancer, lung disease, obesity, and diabetes mellitus. Several sources of both literature and digital media were utilized to fully support the claims provided.
B. A discussion of the connection between the onset of these diseases and physical activity is conveyed. Specific information regarding each disease was gathered through a thorough reading of digital publications and literature.

C. Multiple research reports, journals, and digital publications were utilized to effectively demonstrate how and why our build environment has been inauspicious to pedestrians and bicyclists.
D. A random survey of residents in and around the University of Delaware was partially accomplished. More methods of randomness could have been implemented in the survey distribution process to ensure the accuracy of the data.

Results of the literature search and survey questionnaire indicate that the majority of respondents strongly believe that there is a correlation between the modern built environment and human health. 55.56% of respondents agreed strongly that physical activity was a major contributor to one's well being. None of the respondents disagreed with such notion. Additionally, 64.00% of respondents indicated that they would like to have safe, secure, and accessible walking and bicycling facilities near where they lived. This clear majority reveals that areas of close proximity, such as one's abode, are lacking basic pedestrian walkways and bicycling lanes. Interestingly, 65.52% of respondents stated that they would like to have accessible, safe, and secure walking and bicycling routes to schools for school children in their community. In a society that values child safety, why must there be a privation of walking and bicycling facilities to schools? As the younger generation relinquishes its own physical capabilities in favor of cars and other modes of transportation, obesity levels will surge to pandemic levels. Further analysis reveals that locations relatively far from where respondents live, such as areas of grocery shopping, local libraries, and community centers, are also lacking accessible, safe, and secure walking and bicycling facilities. 62.50% of respondents claimed that they would like to have such facilities near the aforementioned locations. Lastly, with respect to locations that were generally far from where respondents lived, such as major shopping malls, movie theaters, and other recreational centers, 70.00% of respondents indicated that they would like to have accessible, safe, and secure walking and bicycling facilities near these locations. Such a high statistic is indicative of one conclusion: there is an obvious disregard for walking and bicycling facilities. In a mechanized and auto-dependent society, public policy has favored major automotive and housing industries at the expense of human health. Respondents from each question demonstrated their sentiments regarding this community development structure, and the results point to one profound conclusion: there exists a correlation between physical activity and overall health.

Seeking to gather the personal sentiments and preferences of people regarding physical activity and the built environment, this research report draws conclusions from a uniquely designed survey questionnaire. Each question has been designed to garner specific information from the respondents. For example, questions 2 and 3 addresses the immediate vicinity of where the respondent lives, while questions 8 and 9 address locations that are far from the respondent's abode. Extensive statistical analysis is provided for each question, effectively quantifying the preferences of the respondents. Additionally, comprehensive review major diseases, physical activity's connection to the onset of such diseases, and the development of the built environment is presented. Several reputable journal publications are used to corroborate these findings. Lastly, the author of this report, a high school senior, provides a distinctive viewpoint into modern suburban design and the built environment. As a member of the "generation Z", the author delivers some personal insights into road design surrounding his community, and the factors that impelled him to investigate the correlation between the built environment and human health.

The homogeneity of the respondent population could have skewed results, for the survey was conducted in and around the University of Delaware campus, where individuals come from similar economic and socioeconomic backgrounds. More methods of randomization could have been implemented in the survey distribution process to ensure accuracy of data as well. Also, with a sample size of 45 participants, the statistical results of this project may not be applicable or representative of the true data.

Research and the results from this project show that there is a direct link between our built environment and human health. Readers should actively participate in mild to intense physical exercise each week, as the level of one's physical activity is a major contributor to overall health. Depriving society of the very necessary facilities required to nurture its overall health and well-being does not bode well. Drastic changes must be implemented, for a rising pandemic of disease will have dire implications. Society should seek other forms of urban design and community development to counteract the effects of the built environment. Alternatives include the "new urbanism" movement and the complete streets movement, both of which de-emphasize auto dependency and promote walkability of pedestrian friendly streets. Furthermore, future survey distributions should implement necessary randomization techniques to ensure a heterogeneous population of respondents, and represent larger sample sizes to ensure the relevancy of the results.

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