In this essay, I will analyse how McKinsey Health Institute, in their report (Desmouceaux et al., 2022), utilises data and corresponding visualisations to explore how individuals perceive health and their views on the adequacy of current health support received. My analysis will encompass the article's data context, evaluating how the data source and methodology impacts the report. Furthermore, I will assess the credibility of the report and evaluate both the strengths and weaknesses of the article's visualisations in relation to its analysis.

The McKinsey Health Institute (MHI) is a non-profit entity within the firm McKinsey & Company, recognised globally as a prestigious management consultancy, dedicated to advocating for solutions that improve quality of life globally. In 2022, the MHI conducted an extensive worldwide survey, garnering insights from approximately 1,000 respondents in 19 different countries. The objective of the survey was to grasp the diverse global perspectives on health definitions and the factors believed to impact it across various communities hence fair cross country comparisons was a priority. To do so, the survey questions and answers were initially formulated then translated after to ensure similarity. As described in their methodology, the survey questions were structured using the Likert Scale, a widely accepted assessment to measure attitudes (Joshi et al., 2015). As this research aims at understanding an individual’s very subjective perceptions and attitudes towards their health, the Likert Scale was used as a proxy to quantify these perceptions to facilitate meaningful comparisons. The researchers have also balanced the research across both ages and gender with only a small 3 percent error. Moreover, the researchers have acknowledged the impact of sociocultural differences on cross countries comparison, highlighting instances where this influence is most prominent in their analysis. This enhances the survey data's reliability, showcasing the researchers' efforts to recognize and mitigate potential biases in the data.

In the report, there are multiple visualisations of data paired with its corresponding analysis. Moreover, most visualisations have a description of how that data was obtained, along with the relevant “Note(s)” that accompany that visualisation and or data (Fig 1).

All dimensions of health matter

Approximately 85 percent of total respondents rated mental and physical health as very important or extremely important; 70 percent and 62 percent, respectively, used those two ratings to describe the importance given to social health and spiritual health. Recent studies also reinforce the importance of social and spiritual health, showing, for example, that loneliness and social isolation are associated with higher risks of heart attack and strokes[1] or linking greater purpose in life with lower risk of stroke.[2]

Attitudes varied most with regard to the importance of spiritual health. A relatively smaller proportion of respondents from countries with higher median incomes[3] rated spiritual health as very important or extremely important compared with those from countries with lower median incomes.[4]

With respect to age groups, similar proportions of younger and older respondents listed physical and mental health as important,

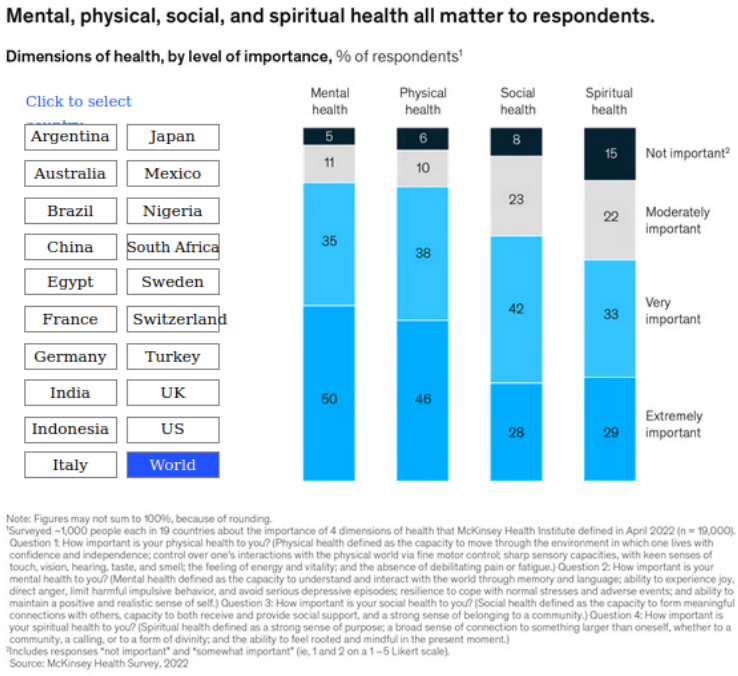

Fig 1: Visualisation accompanying the analysis

As seen in Fig 2 below, the “Note” section provides both the survey questions and any other assumptions made. This clarifies all data definitions such as what “Physical Health” or “Social Health" meant, as well as illustrating what “Not Important” or “Somewhat Important” are on the Likert Scale. This transparency is important for readers to understand how the research context, rooted in subjective individual perception, was quantified into numerical data.

Note: Figures may not sum to 100%, because of rounding.
[1]Surveyed ~1,000 people each in 19 countries about the importance of 4 dimensions of health that McKinsey Health Institute defined in April 2022 (n = 19,000). Question 1: How important is your physical health to you? (Physical health defined as the capacity to move through the environment in which one lives with confidence and independence; control over one's interactions with the physical world via fine motor control; sharp sensory capacities, with keen senses of touch, vision, hearing, taste, and smell; the feeling of energy and vitality; and the absence of debilitating pain or fatigue.) Question 2: How important is your mental health to you? (Mental health defined as the capacity to understand and interact with the world through memory and language; ability to experience joy, direct anger, limit harmful impulsive behavior, and avoid serious depressive episodes; resilience to cope with normal stresses and adverse events; and ability to maintain a positive and realistic sense of self.) Question 3: How important is your social health to you? (Social health defined as the capacity to form meaningful connections with others, capacity to both receive and provide social support, and a strong sense of belonging to a community.) Question 4: How important is your spiritual health to you? (Spiritual health defined as a strong sense of purpose; a broad sense of connection to something larger than oneself, whether to a community, a calling, or to a form of divinity; and the ability to feel rooted and mindful in the present moment.)
[2]Includes responses "not important" and "somewhat important" (ie, 1 and 2 on a 1–5 Likert scale).
Source: McKinsey Health Survey, 2022

Fig 2: Notes accompanying the Visualisation

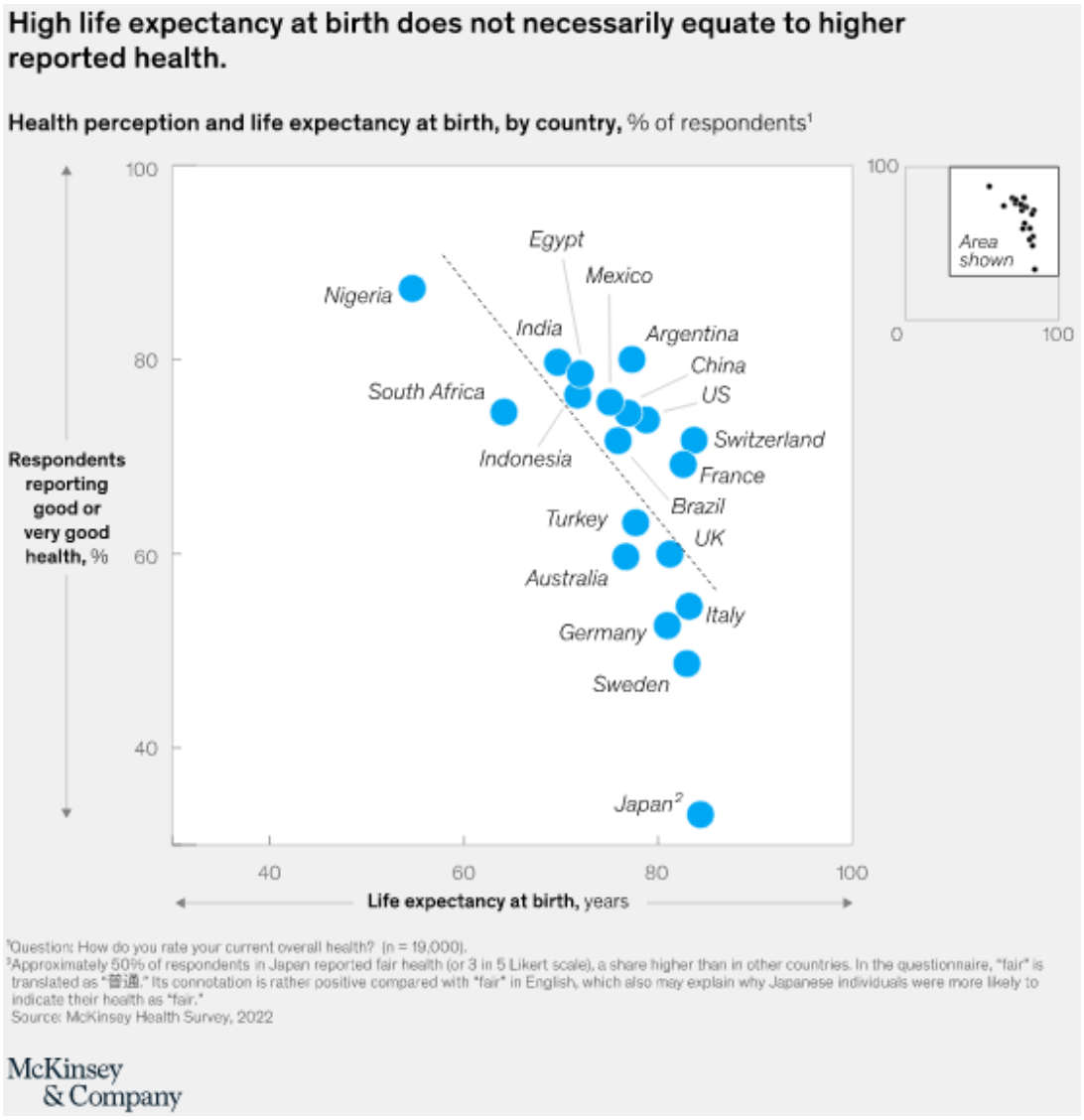

Fig 3. Note includes the survey question and its translated answers.

Another example of how the report provides insights on how its definitions might have influenced the study can be seen in Fig 3 notes. Here the report attempts to explain why Japan appears as an outlier because the translated answer of “fair”, a word with negative or neutral connotation, takes on a positive connotation after translation.

Another commendable aspect of the report can be seen in the top right corner of Fig 3. In the main graph the axes were cropped which could lead to misleading representation of the data. In this example, readers would erroneously assume that Japan has a near 0% of respondents reporting good or very good health because Japan is close to the x-axis. However, the report presents the graph without its axes cropped, to show the readers in a concise way that the data presented was not intended to mislead but rather to remove empty spaces on the graph.

A drawback of this report stems from its apparent restriction to not repeat any two visualisation types. This could have been done for aesthetic purposes but comes at the cost of presenting the data in an “complex” manner, while a previously used visualisation could have been more intuitive and clear. As explained by Cairo in The Functional Art, “By complex I mean the amount of effort readers have to invest in deciphering a particular graphic” (Cairo, 2012, 44). A “complex” visualisation increases the amount of effort and time by the readers in understanding the visualisation. Here, the title of the graph in Fig 4 gives the reader an impression that respondents with disease will have a “lower reported health support” and hence a lower score as compared to those without.

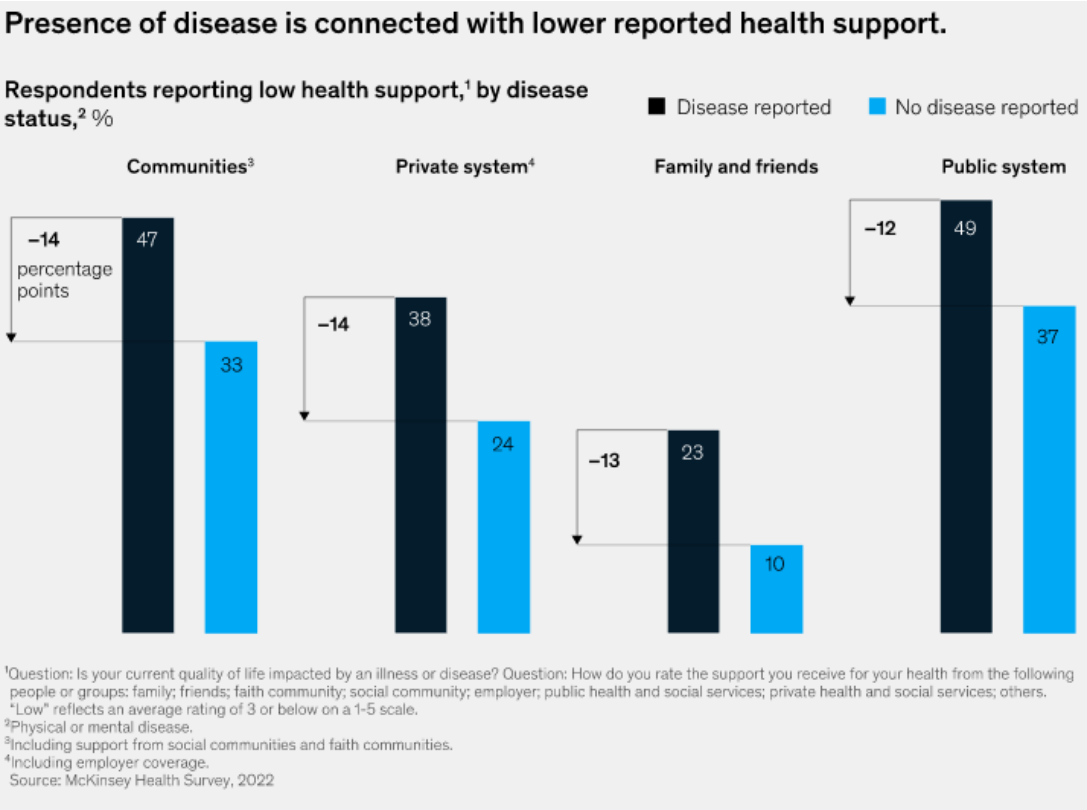

Fig 4. Bar Graph used to show correlation between presence of disease and health support

However, the data axis is describing the percentage of respondents who reported low health support, resulting in a larger value and a taller bar than respondents without disease. The reader must go against their intuition and take more time to decipher the purpose of the visualisation, which is to show that respondents with disease perceive their health support to be lower. This counterintuitive presentation of the graph adds “complexity” to the visualisation.

A recommendation could be to use this existing graph (Fig 5) in a similar fashion and show the range of responses of respondents with and without disease for each category.

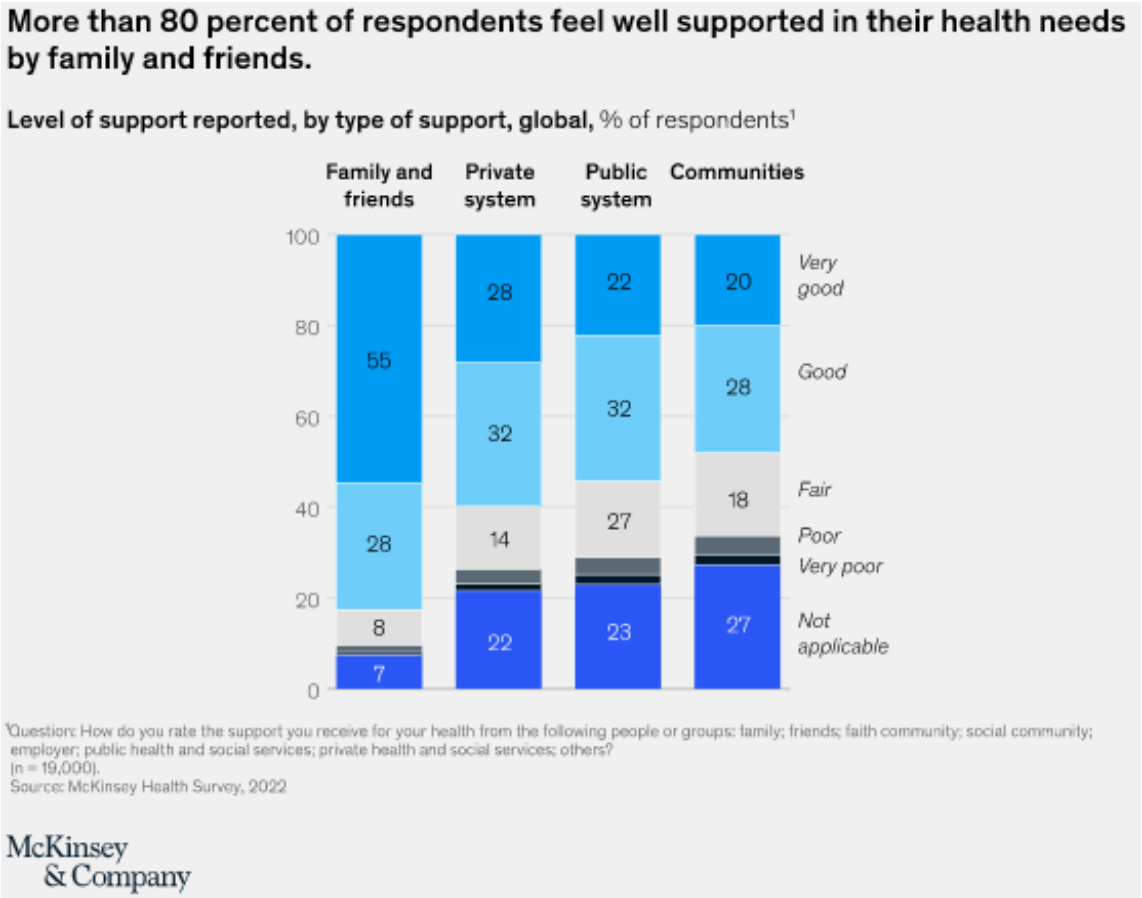

Fig 5. Another visualisation in the article showing the range of responses

This would facilitate easier comparisons between categories in relation to presence of disease. Another recommendation could be to change the bar graph in Fig 4 to show the percentage of respondents with a good or very good rating instead. Although this might potentially change the angle of analysis in the report, it would create a more intuitive graph and less “complex” for readers.

In conclusion, the report uses data visualisations well to substantiate the majority of its analysis. Most graphs in the report help tell a story that more needs to be done globally to improve healthcare or give individuals a better perception towards their health and healthcare support categories. Moreover the article’s transparency gives the reader more assurance that the analysis is well founded. Any assumptions or inconsistencies in the data would be pointed out in the notes, such as if there were any potential data which could have been influenced by its context or definition. However, more could be done to improve accuracy and reduce complexity of the visualisations to allow for a more convincing analysis. This could include adding error bars, or using more visuals which allow for easier comparisons between data. (985 Words)

References

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