

1. Who is the audience?

Washington post readers and anyone interested in global health issues or understanding the main causes of death in the human population.

2. Which questions does this visualization answer? Name at least three.

What are the biggest causes of untimely death?

What preventable diseases are still causing significant deaths in the human population.

What causes of death are increasing? What causes are decreasing?

3. What data is represented in the visualization? Be specific and comprehensive.

- Percentage change in deaths caused by each cause of death from 2005 to 2010.
- Ratio of causes of death in each category.
- Ratio of the main categories of death causes

4. For each data type, describe how it is encoded in the visualization using Bertin's marks and channels. E.g. color saturation (channel) encodes annual percentage of change between 2005 and 2010.

- Color(channel) encodes the major groups of death causes i.e. infectious diseases, injuries and non-communicable diseases.
- Size i.e. volume encodes the percentage of all deaths resulting from a particular cause of death.

5. How are the perceptual channels contrast and color used in the visualization? Name at least two potential problems.

- The changes in the color saturation for each percent change are very minimal and can be hard to tell apart in the visualization, for example the pink representing noncommunicable diseases can be quite hard to tell apart on some cells.
- Representing percent change using color saturation makes it hard to read the chart as you have to refer to the scale each time since it's not a conversion that you can easily store in your mind. It adds a lot of unnecessary eye movement and cognitive effort in understanding the chart.

6. How are Tufte's design principles used or violated in this chart?

- Data ink ratio - The principle is violated since the chart is drawn in three dimensions while two dimensions would have worked just as fine in showing the intended message.