

Data Visualization

ASSIGNMENT 5: RESULTS

Tea Tušar, Data Science and Scientific Computing, Information retrieval and data visualization

Assignment 5

Getting heavier, younger: trajectories of obesity over the life course

<https://pubmed.ncbi.nlm.nih.gov/19949415/>

Study documenting generational patterns of obesity from early childhood through adulthood across birth cohorts

Birth cohort = group of people born during a particular period

The study took place between 1971 and 2006

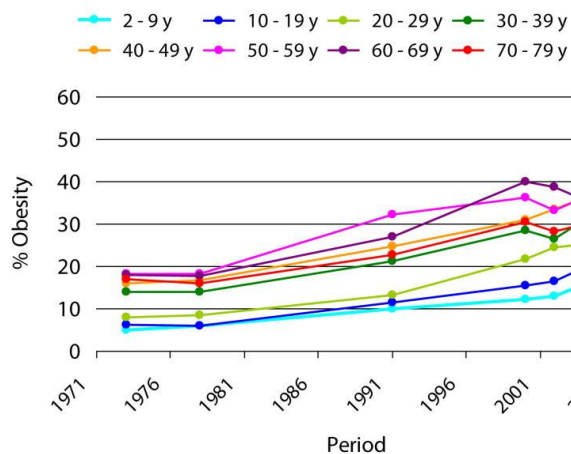
The data: % of obesity

People born between 1976-1985

Age group	1996-2005	1986-1995	1976-1985	1966-1975	1956-1965	1946-1955	1936-1945	1926-1935
2-9 y	12,00	15,77	14,14	5,82	5,63			
10-19 y		18,39	15,10	9,60	5,77	7,03		
20-29 y			23,56	23,63	12,46	8,68	9,11	
30-39 y				29,60	27,66	20,63	14,35	13,63
40-49 y					36,39	30,45	21,86	16,54
50-59 y						37,15	36,18	28,81
60-69 y							39,47	34,70
70-79 y								31,23

3

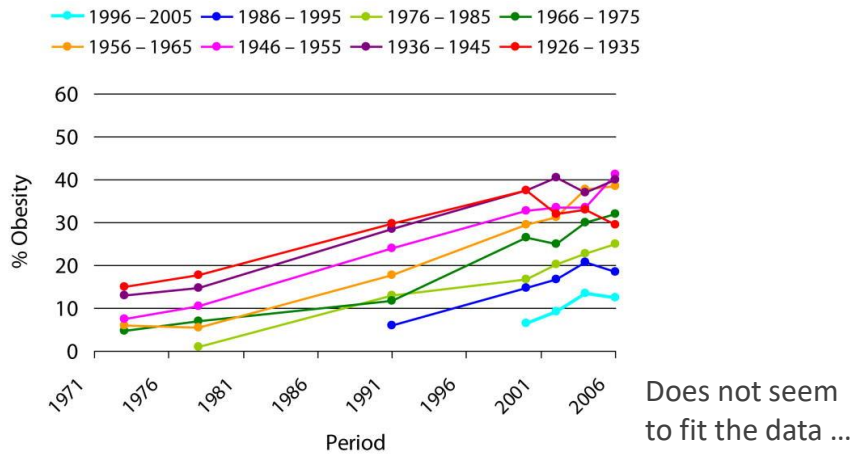
Figure 1: Period trends in obesity prevalence by age group



Does not seem to fit the data ...

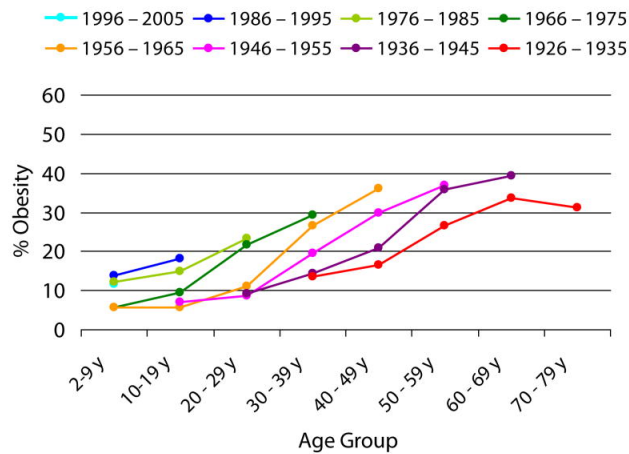
4

Figure 2: Period trends in obesity prevalence by birth cohort



5

Figure 3: Age trends in obesity prevalence by birth cohort



6

Assignment 5

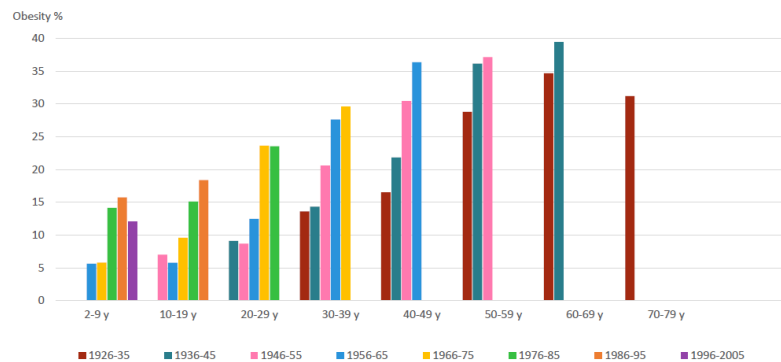
Create a single visualization for the given data

Send the visualization to me via a private chat on Teams by
Sunday, November 5

7

Bar chart

Obesity prevalence in birth cohorts grouped by age

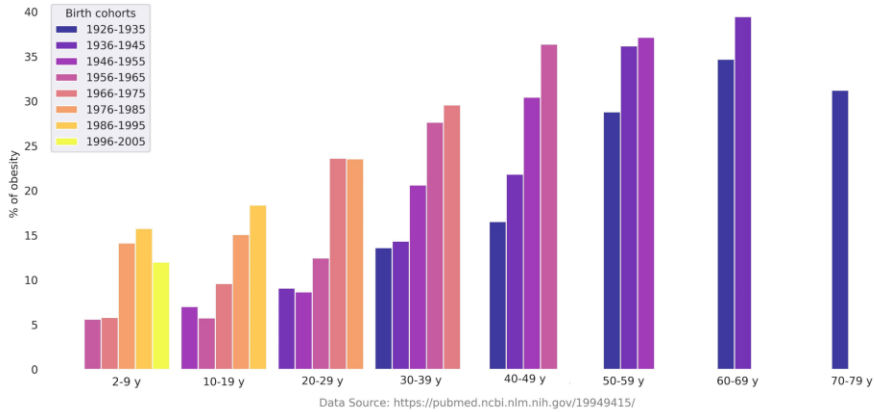


Source: <https://pubmed.ncbi.nlm.nih.gov/19949415/>

8

Bar chart

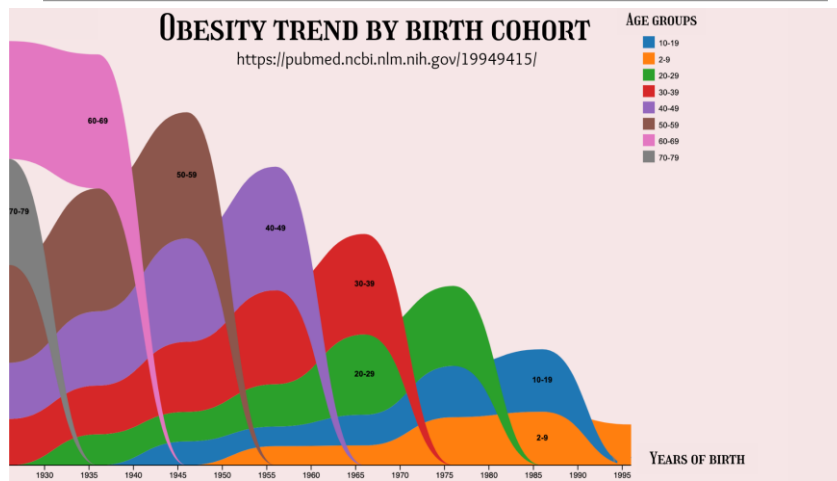
Getting heavier, younger: trajectories of obesity over the life course



Area chart

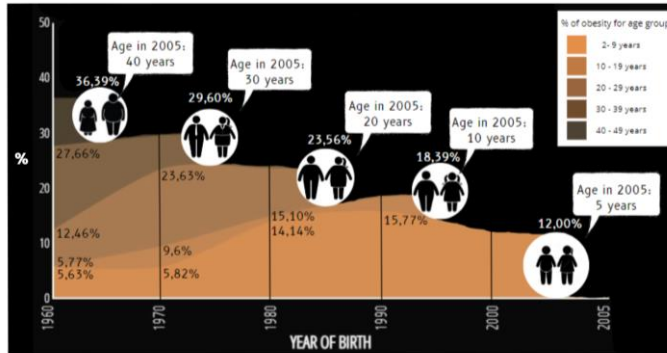
OBESITY TREND BY BIRTH COHORT

<https://pubmed.ncbi.nlm.nih.gov/19949415/>



Area chart

Getting heavier, younger: trajectories of obesity over the life course



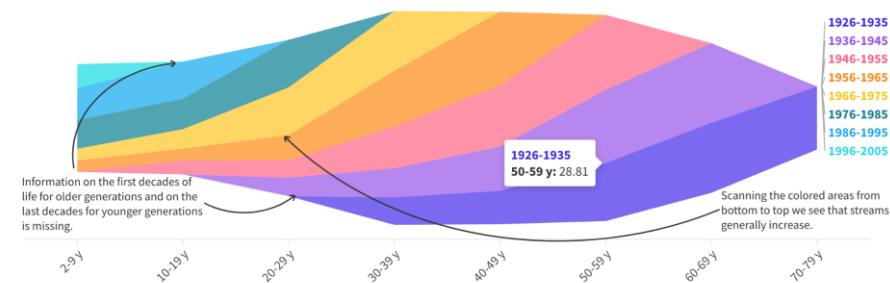
Source: <https://pubmed.ncbi.nlm.nih.gov/19949415/>

11

Area chart

The likelihood of obesity increases as we age - as a species.

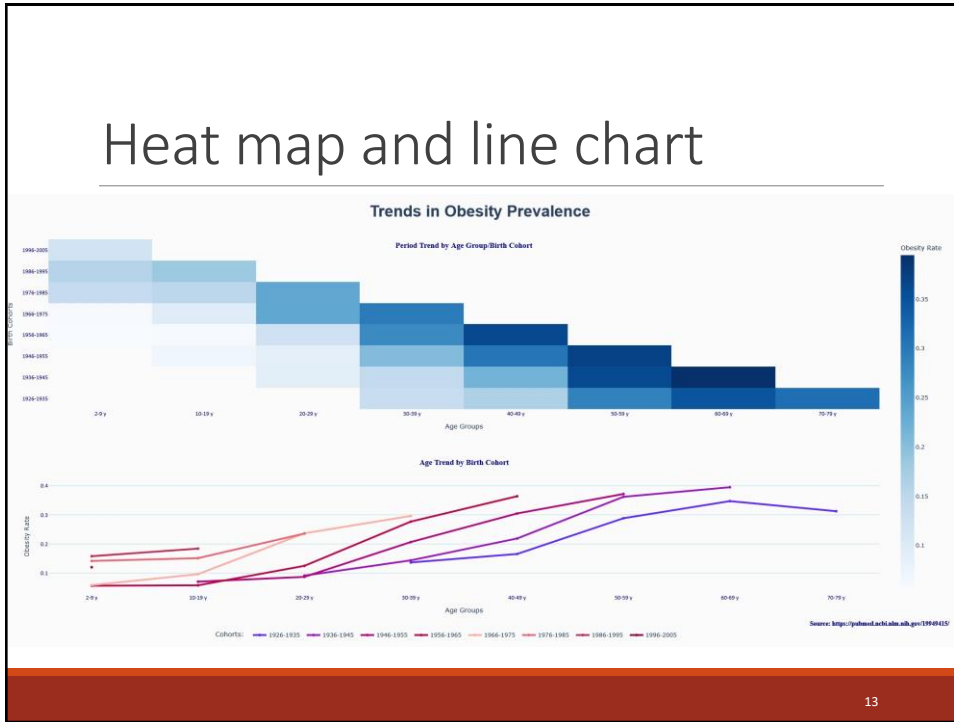
Obesity rate does not increase only as people get older. Younger people are more likely to be obese than their ancestors at their same age.



Source: [Pubmed](#)

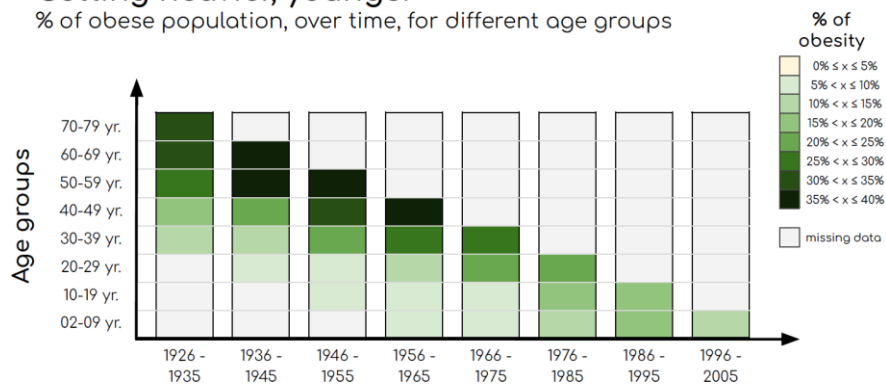
12

Heat map and line chart

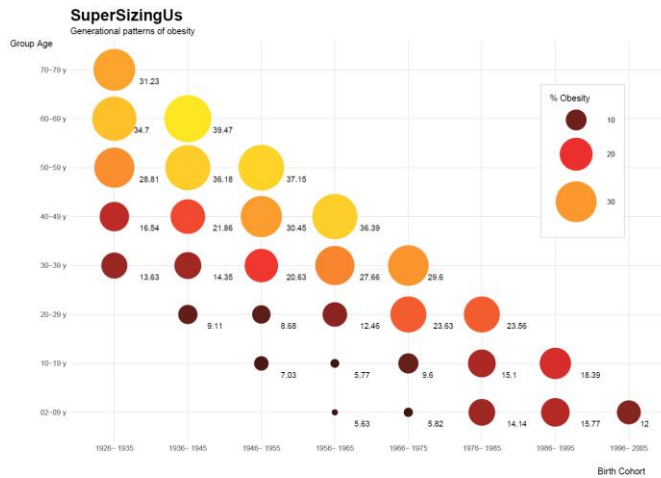


Heat map

Getting heavier, younger
% of obese population, over time, for different age groups

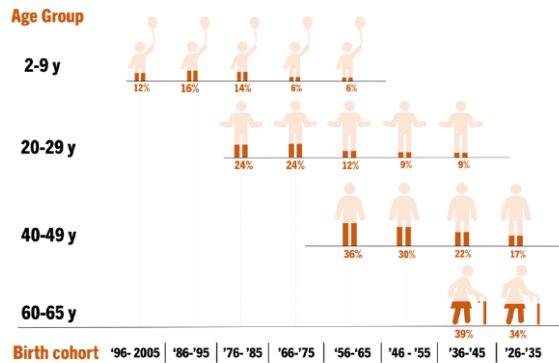


Bubble chart



Custom pictogram chart

New generations have higher rate of obesity across Age groups



Note: Only 4 out of 8 Age Groups were shown, as it is considered enough to convey the main information.
The complete data can be accessed at: <https://pubmed.ncbi.nlm.nih.gov/19345413/>