Correlation does not imply causation

Correlation between organic food sales and diagnoses of autism

One of the commonest mistakes when looking at data is to think that correlation means causation. For example, children are sometimes diagnosed with autism shortly after they are vaccinated and parents then believe that the vaccination caused the autism. However, the commonest age at which children are diagnosed with autism is also the age at which they get vaccinated. So we would expect these events to occur together sometimes. The above graph shows a close correlation between the sales of organic foods and the number of autism diagnoses.
cases diagnosed. No-one has suggested that organic food causes autism and there are no grounds to believe it does. This is a good example, therefore, to illustrate that correlation does not mean causation.