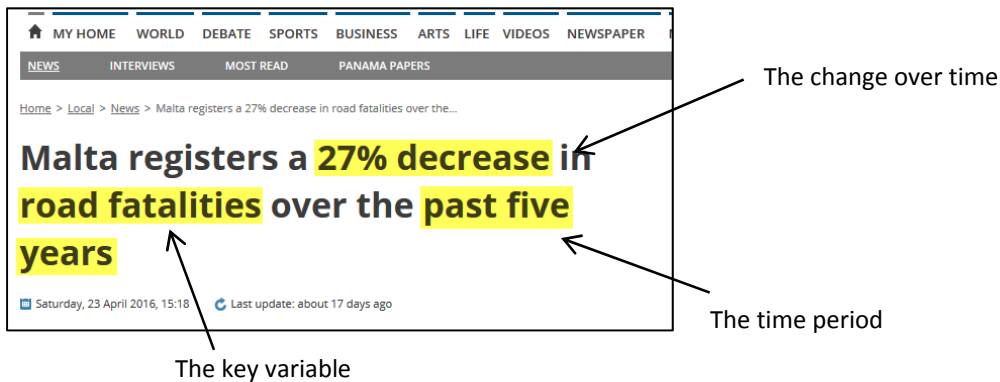
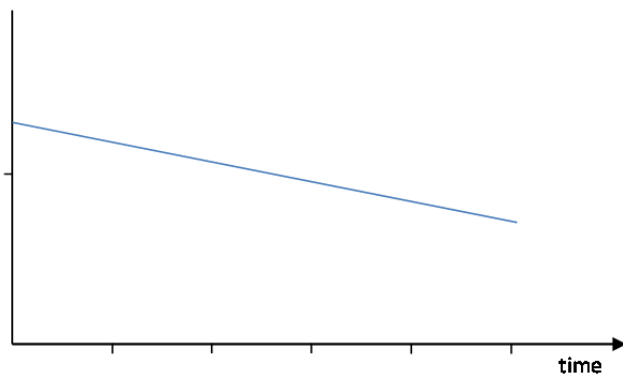


Chart how a key variable has changed over time

This exercise involves identifying the key variable and drawing how it has changed over a relevant time period. All necessary information is in the title of the article.



The **key variable** is the number of road fatalities. It is the main subject of the article. We can now draw the approximate behavior of this variable over time. We place the **time period of five years** on the horizontal axis and we leave the vertical axis unitless. I have included some **markers** on both axes

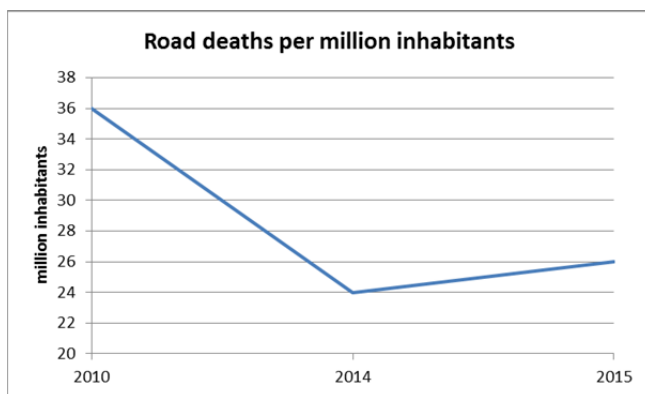


to help me sketch the trend. We then **chart the behavior of the variable over the time period**.

Our chart gives us an **approximate trend** of the number of road fatalities over the five year period. It only shows a **minimum of detail**. When we chart a variable we look to quickly capture the overall trend in behavior. We will see later in the chapter that our understanding and modeling of a complex

situation can never be exact, and we should not waste time on unnecessary detail.

But just how well does our chart represent reality? Let's compare our chart to the actual data



available from the European Commission. We can see that our chart gives the **general overall trend** in behavior between 2010 and 2015. We **ignore the small leveling off and rise** in 2014 and focus on the overall downward trend presented in the article. We can always explore the reasons for this "bump" later on.

What do you think has caused this downward trend? The next step involves identifying the

variables that may have contributed to the behavior of the key variable over the time period. We'll learn, see and practice doing this in units 3, 4 and 7 of this chapter.

References

European Commission - Press release, *Road Safety: new statistics call for fresh efforts to save lives on EU roads*, Brussels, 31 March 2016, http://europa.eu/rapid/press-release_IP-16-863_en.htm