PROFESSOR HANS ROSLING, Gapminder Foundation
What's the population? How many people are living in the country? That is the first, the most fundamental number you need when comparing countries. Most countries collect population data through a headcount called a census. It's done at least every ten years. But it's not enough just to count the total population; the census also provide data on the number in each age group, the age distribution. I'm going to show you how to display an age distribution for any country, and how to understand what different distribution patterns means. But first, have a look at this. I'm going to show the age distribution of the whole world population today.

I will show you the world population, ladies and gentlemen, in the form of foam blocks. One block is one billion, one block is one billion, and that means that we have two billion children in the world. Then we have two billion between 15 and 30 years of age. These are rounded numbers. We have one billion 30 to 45, we have one billion 45 to 60, and then we have my block, 60 years and older, we are here on top. This is the world population today.

You can get detailed population data here, it's the website of the United Nations Population Divisions, with data compiled from all countries by some of the best demographers of the world. You choose age range here and country here, and hit display. They've not only got data back to 1950, they've also used their knowledge of fertility and life span trends to estimate the numbers for the future. These are projections of course, but their past projections have proven to be surprisingly accurate.

So here I use the data to show the age distribution of United Kingdom, age on this axis and number of people here. I divided the number of people into 15 year age group, 15, 30, 45, 60 years old. It's a simplified population pyramid with men and women together. And look, in the United Kingdom it's more or less the same number of people in all age groups, except in the oldest.

You can use the data to make your own short. And what will the age distribution of UK look like in the future? Today fertility rate is around 2, two parents having two children, not much of population growth. I'll bring it forward to 2050. You see the age distribution will look more or less the same in many decades to come. This is how most of the rich countries look.

This is the age distribution of the Democratic Republic of Congo, one of the poorest countries. It's very different. Today women in Congo on average have six babies and most of them survive, so the population have lots of children and young adults but very few older adults. Today it's only the very poorest countries that have age distributions that look like this.

Let's now look at age distribution in a country that is in between the UK and the Congo. This is the age distribution of Bangladesh today, where the number of babies born per woman have dropped almost down to two, and you can see that the number of children is now almost the same as the number of young adults. But if I take the country back to the 1980s, then there were many babies born per woman and the age distribution looked as it does in Congo today. Now as the fertility rate kept dropping into present time, the number of children stopped growing, and today, the fill up of adults have started.

Now I'm going to take Bangladesh into the future, and you will see a continued fill up of the older age group, and by 2050, the age distribution of Bangladesh will look almost as it does in UK today and the fast population growth will be over. And even in Congo, one of the poorest and most war torn countries in the world, the fertility rate is predicted to come down during this century, and the population age distribution will change accordingly, and look like this by the end of the century.

In the world as a whole today, the number of children have stopped increasing, because most countries are like Bangladesh, some like UK and a few like Congo. And now, look, I'm going to show you how the age distribution of the whole world population will change in the future.

Now what will happen in the future? You know what happens to old people like me, they die. Yes, there was someone here who works in hospitals, yeah, so they die. The rest, they grow 15 years older and have two billion children. These ones are now old, time to die, and then these ones grow 15 years older and they have two billion children, this one die and the rest grow 15 years older and have two billion children, without increasing the number of children, without increasing the length of life, we have three billion people more by this big inevitable fill up of adults, which will happen just when the large young generations grow up.

Now there is one more detail which is good news for the older ones here, like me, that it’s estimated that the old people will live a little longer, so we have to add one billion more for the old here on the top. And I'm desperately hoping that I will be part of that group, because then I can live long and read the annual statistic as they come reporting every year.