

Our question:

How long does the average person spend in the shower in their lifetime?

What we need to find out or estimate:

What is the length of an average lifetime?

What is the length of an average shower?

Our plan:

We know the average lifetime is 79 years because we found that information on the Statistics New Zealand website.

To work out the length of an average shower we are all going to time ourselves and other members of our family in the shower and then use these times to calculate an average time.

Our calculations:

Person	Time in shower
Jack	8 minutes
Jack's mum	3 minutes
Andrew	15 minutes
Andrew's brother	6 minutes
Andrew's dad	5 minutes
Sarah	12 minutes
Sarah's sister	8 minutes

$$8 + 3 + 15 + 6 + 5 + 12 + 8 = 57$$

$$57 \div 7 = 8.1, 8 \text{ minutes}$$

We asked our families and most people have a shower every day, but some people have more than one a day and some people have less than one a day so we are assuming the average person has one shower a day.

In 79 years there are 79×365 days = 28 124 days.

$28\,124 \text{ days} \times 8 \text{ minutes} = 224\,993 \text{ minutes}$

$224\,993 \text{ minutes} \div 60 \text{ minutes in an hour} = 3\,749 \text{ hours}$

$3\,749 \text{ hours} \div 24 \text{ hours in a day} = 156 \text{ days}$

$156 \text{ days} \div 30 \text{ days in an average month} = 5.2 \text{ months}$

Our conclusion:

The average person spends just over 5 months of their life in the shower.