

Ageing Well

Resilience to stressors

The healthiness of ageing can be thought of in terms of **resilience**.

Resilience is the capacity to **recover quickly** from an event or stressful situation.

Stressor events can be:

- **physical** (e.g., falls, viruses) or
- **non-physical** (such as the loss of a spouse).

The same stressor event can affect people in **different ways**, depending on their underlying physical and mental health.

Healthy people recover quickly from stressor events, without lasting consequences



Less resilient people are more prone to real setback or stress.



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Healthy vs. accelerated ageing

People age in different ways and at different rates.



Healthy ageing



Accelerated ageing

Frailty is the opposite of resilience

Frailty is the a **lack of resilience** in bouncing back from stressor events.

It is a medical term used to describe a **loss of fitness** that occurs as a result of natural ageing, combined with the outcomes of multiple long-term conditions.

In later life, **multiple conditions combined** can have a greater effect than each condition alone.

For example, diabetes in combination with heart disease and depression **can be more severe** than only diabetes or heart disease.



Frailty reduces functional ability

Frailty affects our **functional ability**, in other words how we are able to perform everyday tasks such as going to the shop or putting on socks.

It is normal for our functional ability to **change** over time. However, people with frailty tend to lose their functional ability **much faster**.

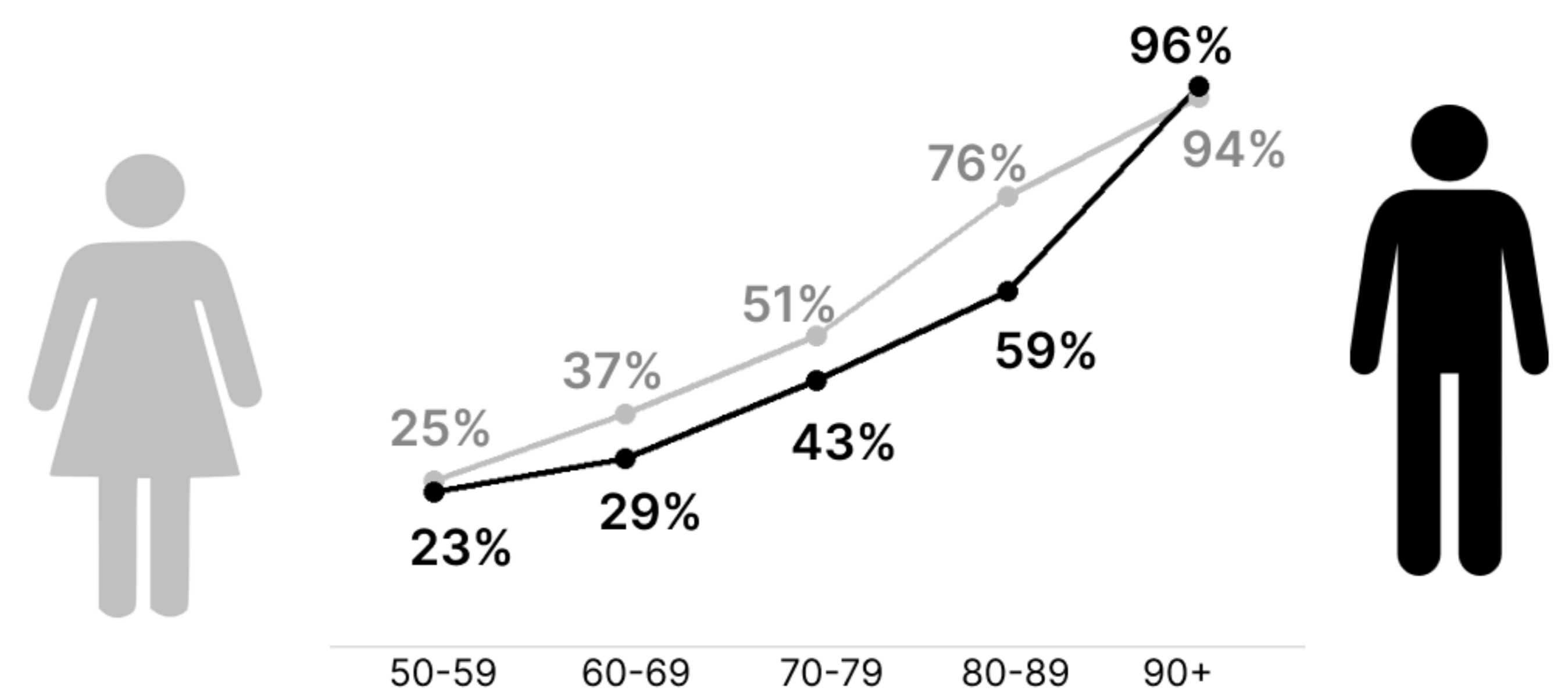
This affects **quality of life** in later years.

Frailty is common

Most adults who live long enough will experience frailty.

Frailty **increases with age**.

Frailty affects **women** more than men.

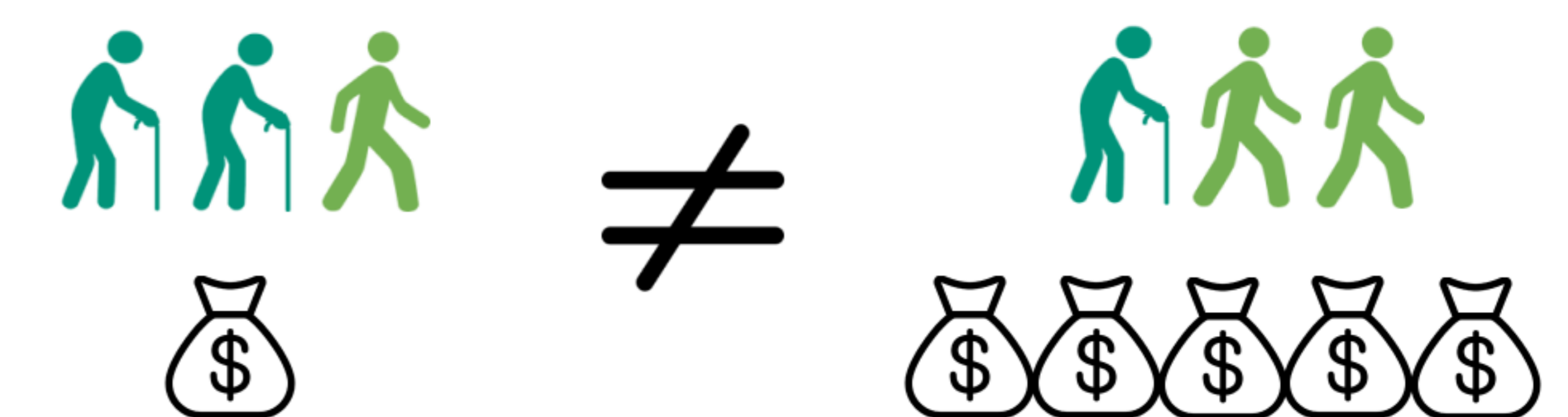


Percentage of Adults with Frailty by Age

Source: English Longitudinal Study of Ageing, 2019 data

Frailty affects low-income people most

The poorest 20% of the population are **twice** as likely to have frailty as the richest 20%.



Source: English Longitudinal Study of Ageing, 2019 data

What are indicators of frailty?

Frailty can be measured in different ways.



By a doctor assessing:

1. Weakness
2. Slow walking speed
3. Low physical activity
4. Exhaustion
5. Unintentional weight loss



By counting the number of health issues someone has.

The burden of frailty grows as people accumulate more health issues.

There are different degrees of frailty

People get allocated to **different categories** of frailty depending on the size of their burden.

People can become frail at different ages.

Each category of frailty is illustrated by an example based on a real person, using data from the English Longitudinal Study of Ageing.

Fit



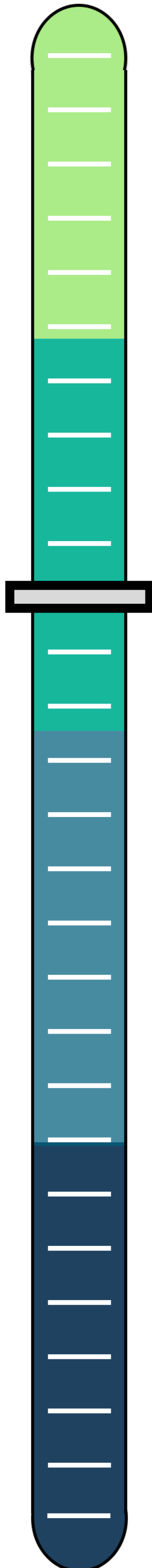
Mild Frailty



Moderate Frailty



Severe Frailty



68-year-old Tom

- Volunteer fitness coach at the local gym
- Gardening enthusiast
- Handy with DIY jobs around the house
- Quit smoking 10 years ago
- Has asthma
- Good general health

78-year old Ann

- No major health worries
- Thinks her general health is about average for her age
- Has arthritis, knee replacement
- Starting to struggle with housework
- Has difficulty kneeling
- Does not feel sad or lonely but increasingly feels everything is an effort

85-year-old Dennis

- Has cancer, diabetes, high blood pressure, arthritis and depression
- Lives alone but his son visits him on the weekends to do a food shop and help with chores around the house.
- Uses a walking stick
- Starting to struggle with using the stairs at home
- Has good eyesight but has a hearing aid
- Sleeps restlessly
- Very good memory

70-year old Margaret

- Has high blood pressure, asthma and arthritis
- Significant mobility issues (e.g., difficulty getting up from a chair and walking around the room)
- Needs help to get dressed, get in and out of bed and with housework and shopping
- Able to eat meals and go to the toilet by herself
- Forgetful
- Sleeps restlessly but has an optimistic outlook on life

How does someone become frail?

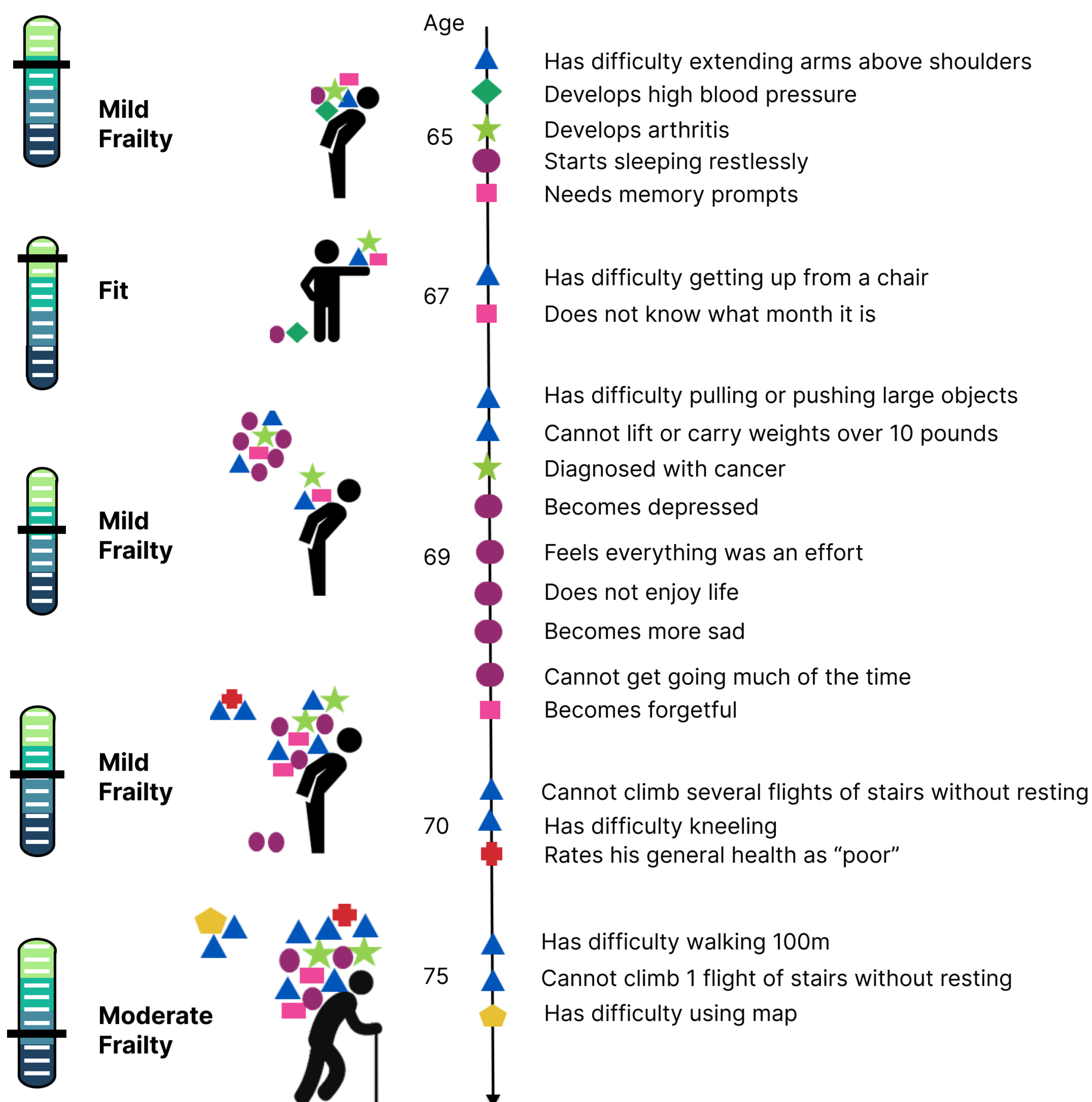
The timeline below illustrates how someone can **develop health issues** as they get older and become more frail.

Frailty is not necessarily a one-way street, however, and it is **possible to become more fit** as health issues improve.

The timeline is based on a real person over a decade, using data from the English Longitudinal Study of Ageing.

Categories of Health Issues

- ▲ Mobility
- ◆ Cardiovascular
- ★ Chronic disease
- Psychological wellbeing
- Memory
- + General health
- ⬠ Lifestyle



Frailty covers many health issues

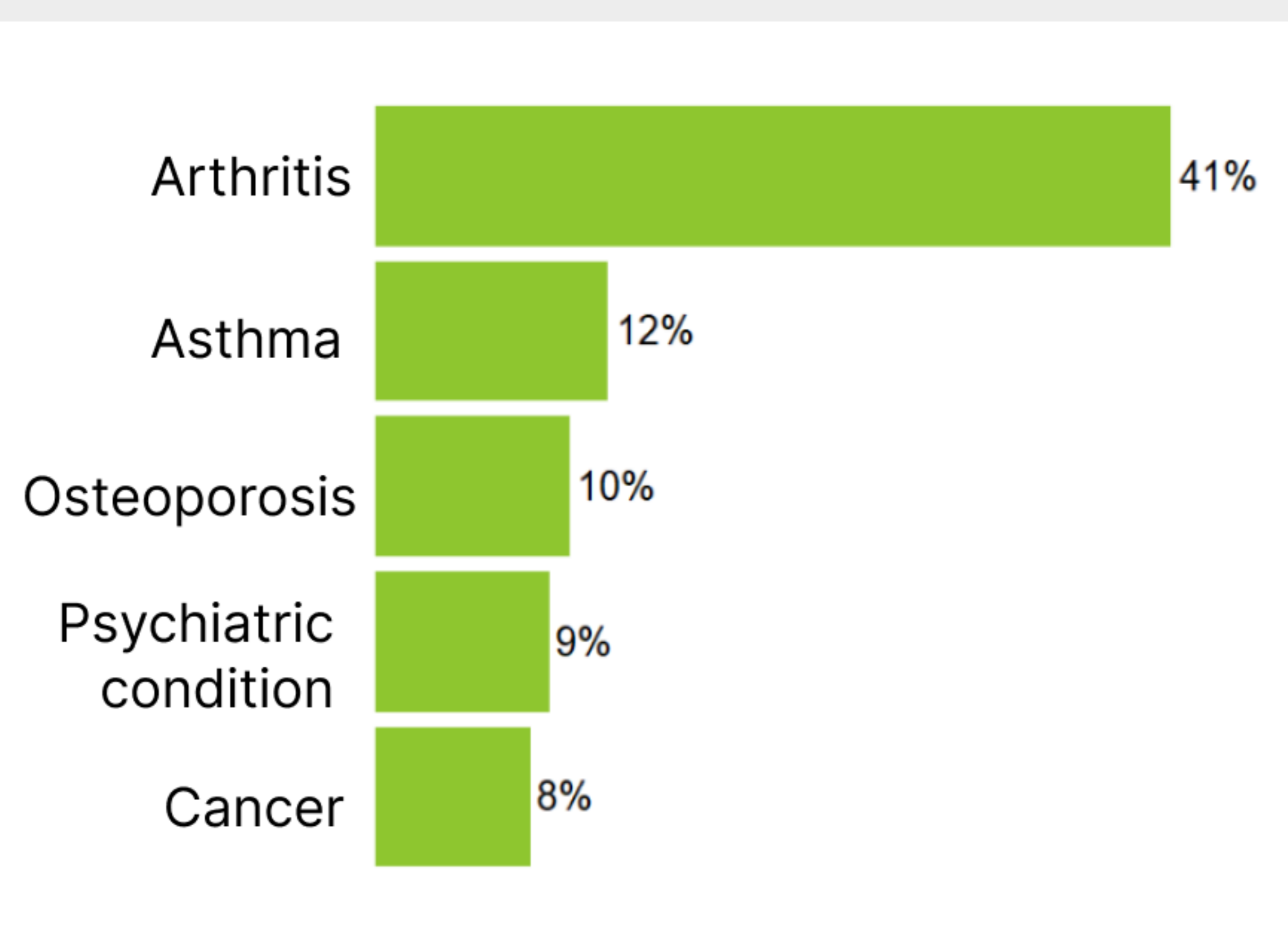
Health issues can be **physical conditions** (chronic disease and cardiovascular health).

Non-physical issues include psychological wellbeing, memory, mobility, lifestyle and general health.

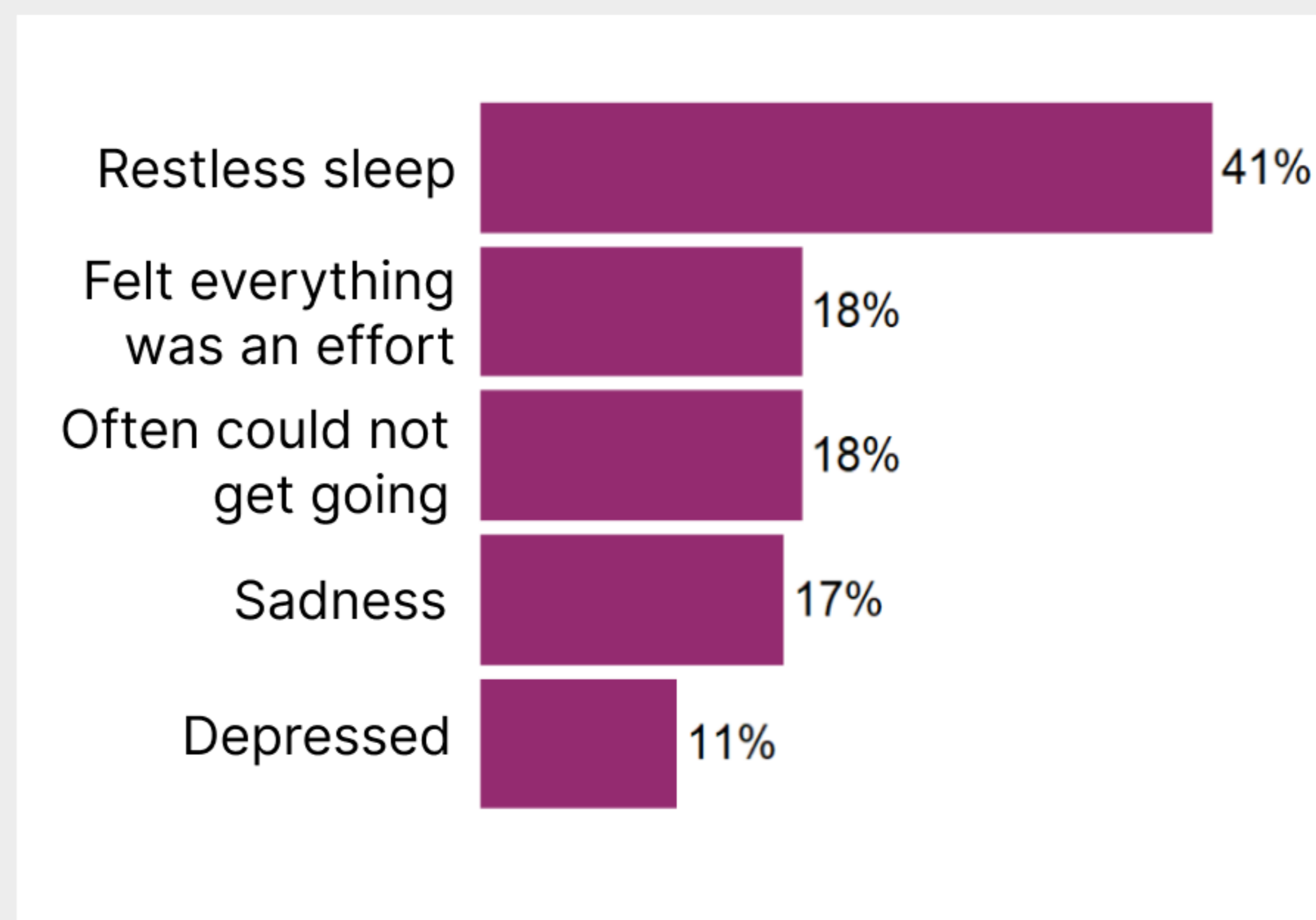
Common health issues in frailty

Common health issues include **restless sleep** (affects 41% of adults aged over 50), **arthritis** (41%), **difficulty kneeling** (39%) and **high blood pressure** (39%). Contrary to popular conceptions of frailty, issues such as **difficulty walking across a room** (5%), **making phone calls** (3%) and **eating** (3%) are rare. The charts show the percentage of adults aged over 50 with each health issue.

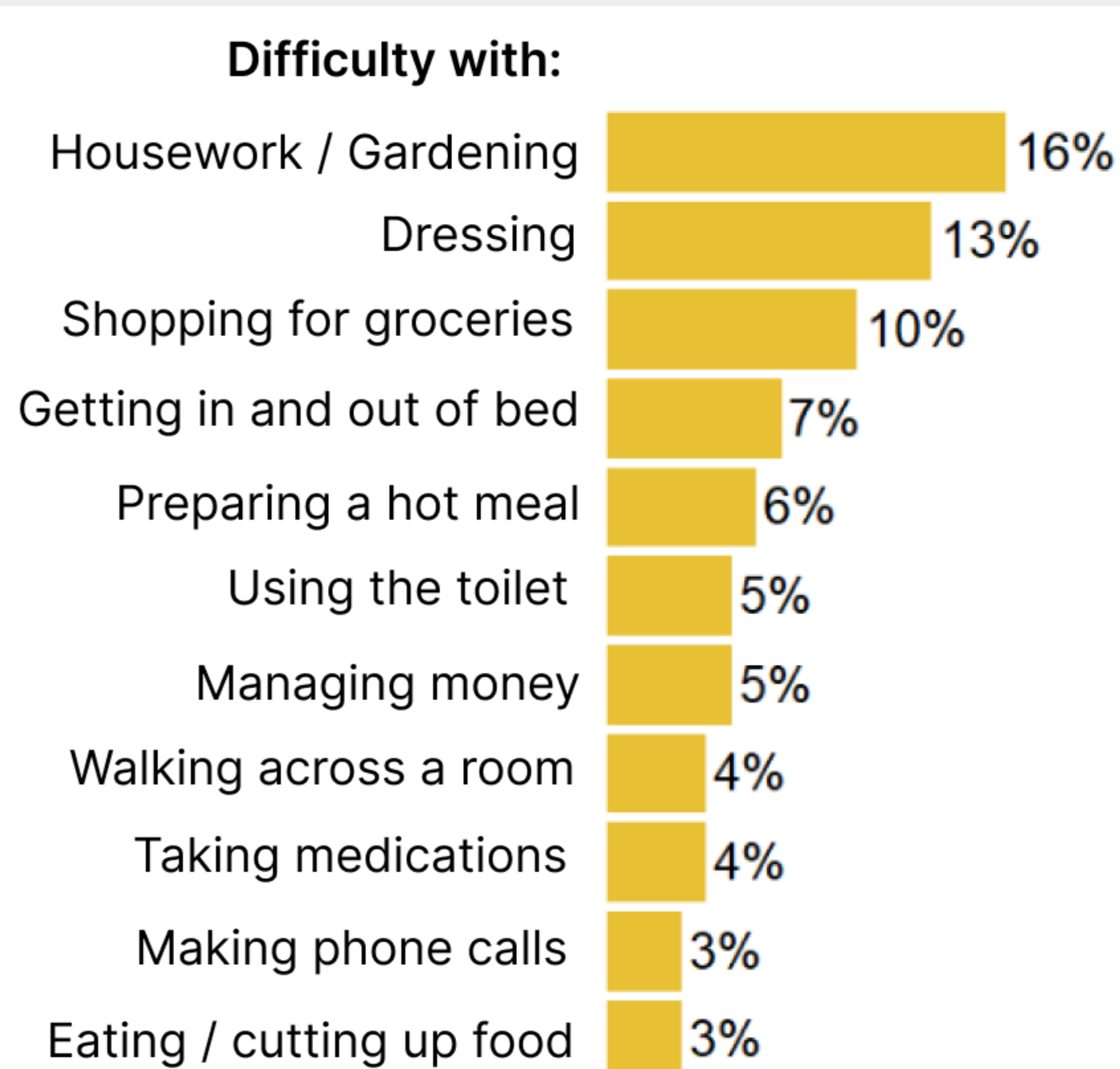
Chronic Disease



Psychological Wellbeing



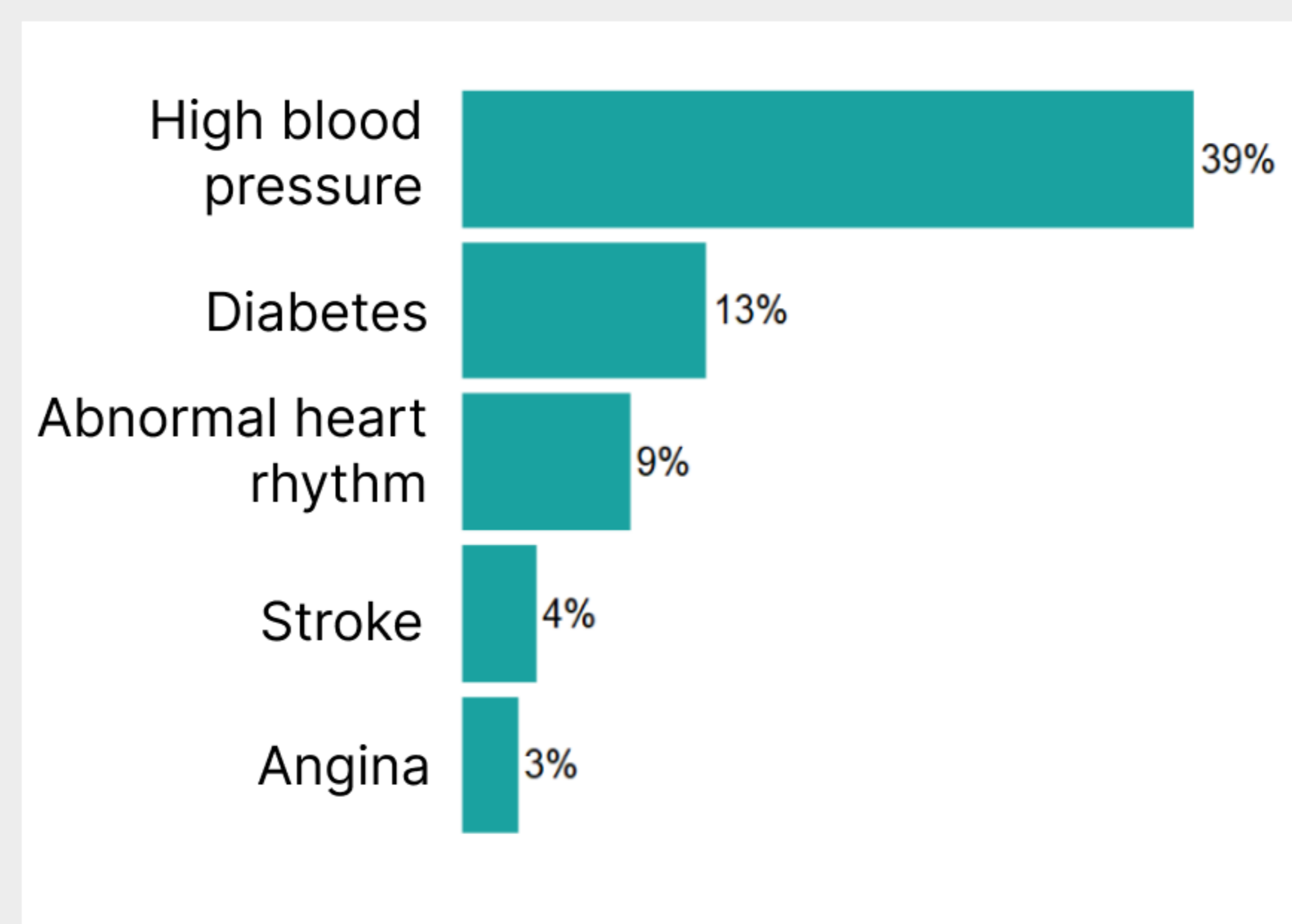
Lifestyle



Mobility



Cardiovascular



What health issues can be reversed?

Several health issues can be **reversed** over time.

This can **improve quality of life.**



Restless sleep



Sadness



Difficulty kneeling



Getting up from chair



Climbing stairs without resting



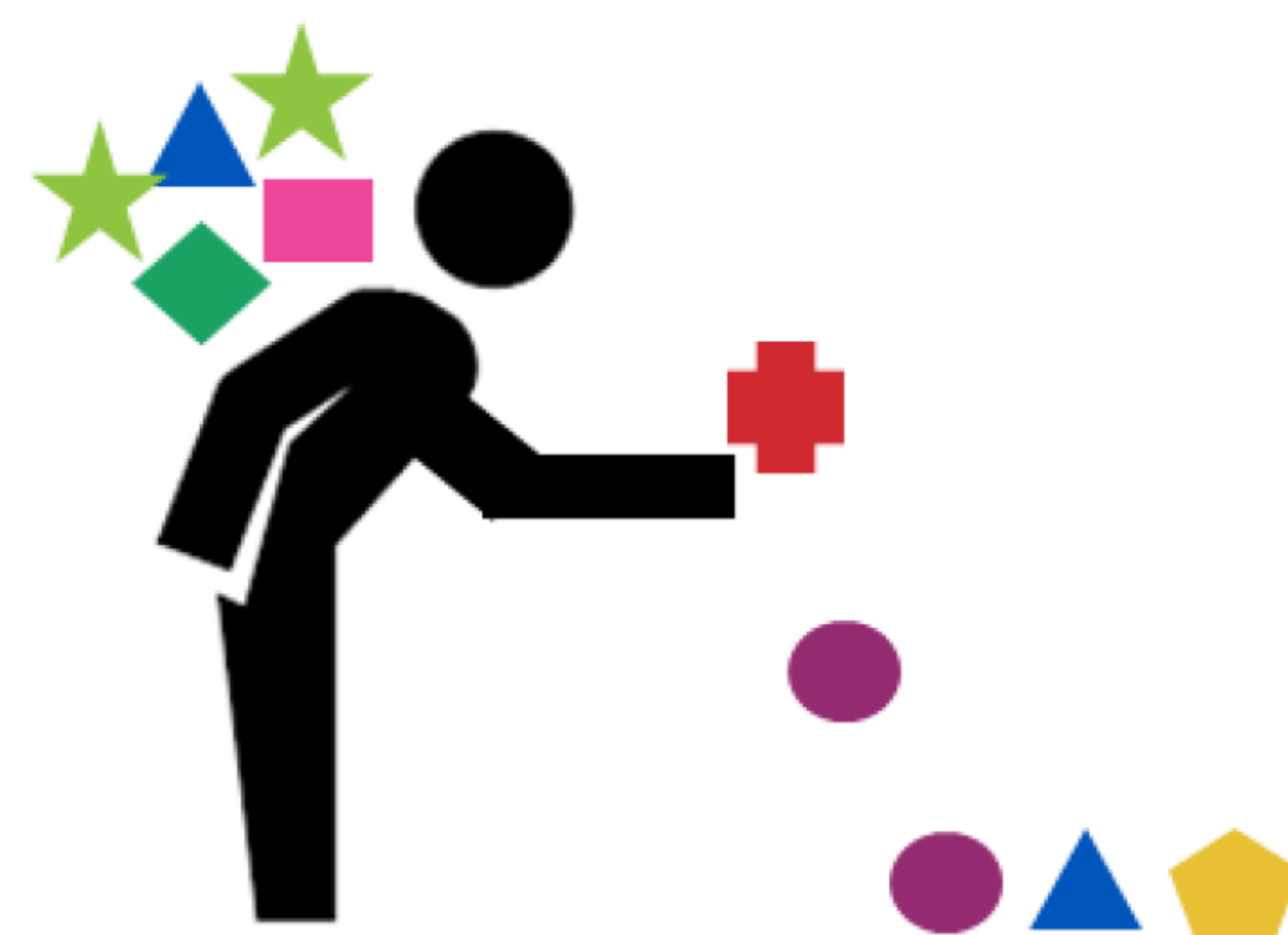
Lifting or carrying weights over 10 pounds

Icons by Freepik / www.flaticon.com, Gan Khoon Lay / iconfinder.com, Adrien Coquet / Nathan Driskell / Luis Prado / thenounproject.com
Source: English Longitudinal Study of Ageing, 2019 data

How can I improve my frailty?

Although frailty does increase with age, it is **not inevitable.**

Certain behavioural and lifestyle changes can help **prevent** or even **reverse frailty** in its early stages.



Doing resistance exercise



Decreasing sedentary behaviour



Stopping smoking



Reducing obesity



Treating depression

Icons by icon-library.com, Royyan Razka / Gan Khoon Lay / thenounproject.com, Gpuica / subpng.com, Freepik / www.flaticon.com

Disclaimer

The information provided is for educational purposes only and does not substitute for professional medical advice.

For further information

NHS and Age UK (2019): [A Practical Guide to Healthy Ageing](#).

Talk to your GP about options to stay healthy and independent for longer

Acknowledgements and references

Banks, J., Batty, G.D., Breedvelt, J.J.F., Coughlin, K., Crawford, R., Marmot, M., Nazroo, J., Oldfield, Z., Steel, N., Steptoe, A., Wood, Martin., Zaninotto, P. (2021) English Longitudinal Study of Ageing: Waves 0-9, 1998-2019 [data collection]. 36th Edition. UK Data Service. SN: 5050, <http://doi.org/10.5255/UKDA-SN-5050-23>

Hoogendijk, E. O., Afilalo, J., Ensrund, K. R., Kowal, P., Onder, G., Fried, L. P. 2019. Frailty: implications for clinical practice and public health. *The Lancet*. 394, 1365-1375: [https://doi.org/10.1016/S0140-6736\(19\)31786-6](https://doi.org/10.1016/S0140-6736(19)31786-6)

Niederstrasser, N. G., Rogers, N. T., Bandelow, S. 2019. Determinants of frailty development and progression using a multidimensional frailty index: evidence from the English longitudinal study of ageing. *Plos One*: <https://doi.org/10.1371/journal.pone.0223799>

