# <1>Chapter 3: Markov models

In this Chapter, we will examine one of the most common and useful ways to understand complex public health and healthcare interventions: the *Markov model.* A Markov model is a representation of health or disease that has many possible states, such as multiple stages of disease, to identify how effective or cost-effective our public health and healthcare programs might be. Markov models are highly flexible and allow for an infinite variety of diseases or interventions to be simulated and understood, which is why they are among the most popular tools for public health and healthcare research.

## <2> Principles of Markov modeling

[Basu model of male pattern baldness– 4 states]