

## Life Insurance Detailed Calculator

### PROTECTION GAP

- The protection gap is a metric to estimate the lack of protection against the financial consequences of specific events:
  - death (the mortality protection gap), and
  - critical illness (the critical illness protection gap, based on critical illness recovery period from user input)
- Each protection gap is calculated as the difference between the protection needs (resources required) and the resources available, subject to a minimum of zero (i.e. negative protection gaps are not allowed).

### Protection needs

Below is a brief description of each component of protection needs that is used in the calculator.

#### *Funeral cost*

- This is the cost of holding a funeral, including all after-funeral costs.
- For the mortality protection gap, funeral cost has been set as a lump sum of \$10,000.
- For the critical illness protection gap, funeral cost is not applicable and is set to zero.

#### *Unpaid services*

- This is the cost of the user's contribution to the household (e.g. carrying out household chores or accompanying dependents).
- For the mortality protection gap, the unpaid services per year is estimated to be \$10,296, which is approximately the amount of money required for a part-time helper for nine hours a week, every week of the year. Unpaid services are calculated based on the annual cost per year and the remaining lifetime of the spouse or the "other youngest dependent" if the user is not married.
- For the critical illness protection gap, the unpaid services per year is estimated to be \$13,728, which is approximately the amount of money required for a part-time helper for twelve hours a week, every week of the year. Unpaid services are calculated based on the annual cost per year and the remaining lifetime of the spouse or the "other youngest dependent" if user is not married, capped at critical illness recovery period.
- For the mortality protection gap and the critical illness protection gap, the remaining lifetime of a person is calculated as life expectancy of person less the person's current age, subject to a minimum of two years remaining life expectancy.

#### *Personal and mortgage loans*

- This is the total outstanding personal and mortgage loans held.
- For the mortality protection gap, the total outstanding loan is calculated as the sum of the total outstanding personal loans and total outstanding mortgage loans.

- For the critical illness protection gap, a “critical illness (CI) factor adjustment” is applied on the outstanding personal loan amount and outstanding mortgage loan amount to take into account the duration of critical illness. This factor adjustment is calculated based on the critical illness recovery period and the remaining personal/mortgage loan tenure filled in.

#### *Needs of the dependent children*

- This relates to needs of dependent children, including school fees and other expenses such as tuition/enrichment classes, food, clothing and transport.
- For each dependent child, the needs per year are estimated to be \$10,000, which is approximately the amount of money required to provide for a child for one year. The protection needs of dependent children are calculated based on the annual cost assumed and the number of years till the child turns 20, subject to a minimum of two years (for both the mortality and the critical illness protection gaps).
- Children with special needs are calculated on the same basis as “other dependents” as that component caters for more support amount over a longer period of time.

#### *Needs of other dependents*

- This relates to needs of other dependents who are dependent for financial support, including food, and clothing and transport.
- For each other dependent, the needs per year are estimated to be \$20,000, which is approximately the amount of money required to support an “other dependent” for one year. The protection needs of “other dependents” are calculated based on the annual cost and the remaining lifetime of the “other dependent”. The remaining lifetime is calculated as life expectancy of other dependent less the other dependent’s current age, subject to a minimum of 7 years remaining life expectancy.

#### *Needs of dependents: Rent*

- This relates to the rental expense of the surviving dependents in a household.
- This is calculated based on the actual annual rent expense filled in and the remaining lifetime of the spouse or the other youngest dependent if the user is not married (capped at critical illness recovery period for the critical illness protection gap). The remaining lifetime of a person is calculated as life expectancy of person less the person’s current age, subject to a minimum of two years remaining life expectancy.

#### *Needs of dependents: Household expenses*

- This relates to the needs of the surviving dependents in a household, including food, clothing and transport for the spouse if the user is married (other dependents being captured separately) and other bills of the household e.g. electricity, internet.
- The household expenses are based on the estimated annual net household expenditure and the remaining lifetime of the spouse or the other youngest dependent if the user is not married (capped at critical illness recovery period for the critical illness protection gap). The estimated annual net household expenditure is derived based on the age band and income band filled in for the user. The remaining lifetime of a person is calculated as life expectancy of person less the person’s current age, subject to a minimum of two years remaining life expectancy.

### *Remaining spouse's income*

- This is to offset the protection needs upon death or onset of critical illness. This is only applicable for married individuals.
- This remaining spouse's income is approximately calculated based on the estimated annual income of the spouse and the remaining number of years till retirement age of the spouse (capped at critical illness recovery period for the critical illness protection gap).
- When the spouse's income exceeds the total protection needs, the excess is excluded.

### **Resources available**

Below is a brief description of each component of resources available that is used in the calculator.

#### *CPF savings*

- This is the total balance for all CPF accounts.
- CPF savings are not included for the critical illness protection gap as it is assumed that only the Medisave account is used to offset the immediate medical needs, and the remaining CPF account balance cannot be withdrawn for critical illness.

#### *Other savings (i.e. non-CPF)*

- Other savings represent the cash and bank savings available to offset the protection needs.
- Other savings are not included for critical illness protection gap as it is assumed that the patient will still require savings for retirement needs (e.g. to maintain a reasonable lifestyle in the later stages of life).

#### *Insurance coverage*

- This is the insurance coverage from insurance policies covering the user.
- For the mortality protection gap, the insurance coverage is the sum of individual insurance coverage on death and group insurance coverage on death.
- For the critical illness protection gap, the insurance coverage is the sum of individual insurance coverage on critical illness and group insurance coverage on critical illness.

#### *Other resources available*

- This is a manual adjustment that can be filled in by the user. It refers to resources not covered above that the user and/or his/her dependents can rely on in the event of death or critical illness.
- Other resources available could include any other assets that the user is willing to use to offset upcoming protection needs e.g. property, investments, or others.