

Problem statement [B]: To develop economic protein-rich natural food product for long-term nursing home residents

Desired outcomes:

Food product or ingredient that is economical and can enhancing protein intake of meals served in elder-care institutions.

Background of problem:

Protein is necessary for the body to maintain muscle mass. For elders, maintaining muscle mass is important in slowing the onset of frailty, which affects the ability to live independently while increasing the risk of injury from falls. At the same time, elderly consumers require higher protein intake than regular adults due to less efficient digestive systems.

In institutional settings such as nursing homes, it is challenging to provide residents with high protein foods due to cost, time and manpower constraints. This is particularly in nursing homes that rely on donated food items and charitable funding.

Development of an economic protein-rich natural food product/ingredient that can be added during meal preparation would help elder-care institutions to provide better meals for their residents. The product should have the following characteristics:

- Enhance protein intake, with protein from a natural source
- Economical in terms of protein provided per dollar
- Easily digestible/absorbable by the elderly
- Easy to incorporate / prepare during meal preparation

Product requirements

Must have (Core):

- Enhance protein intake, with protein from a natural source
- Economical in terms of protein provided per dollar
- Easily digestible/absorbable by the elderly
- Must taste and look acceptable, e.g. Asian flavours acceptable to local elderly

Nice to have (Flex):

- Easy to incorporate / prepare during meal preparation

Must not have:

- Expensive
- Bad tasting

Market potential for proposed solution/product

- Products can be used for meal preparation in institutional settings (i.e. use in hospitals, nursing homes), and potentially for retail consumers in smaller packaging sizes.
- The price will depend on the form of the product. As a guide, Singapore's nursing home industry average daily meal budget per resident is between \$6-10 per day (including 3 meals and snacks).