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# Update on Elderly Care NHI Belize

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# NHI Mercy Clinic:

- ▶ Elderly Care Program within the city of Belize
- ▶ Started June 2009
- ▶ Initial coverage of 25%, presently 50% of the population
- ▶ Initially conceptualized:
  - ▶ On a comprehensive centralized package of services
  - ▶ For the Burden of disease (NCDs)
- ▶ Expansion of services in 2016 to include:
  - ▶ Home visits
  - ▶ Rationalization of services and medication
- ▶ 2018: Introduction to a multidisciplinary approach...



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## Mercy Clinic Elderly Population:

- ▶ 2017: 1700 persons registered.
- ▶ 2018: 2500 - 3000
  - Increasing the registered Population:
    - Active registration method:
      - 60 yrs.+ with a SSB Card
      - Not an active NHI member
      - Telephone registration



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## Elderly Home Care:

### ► Case Manager:

- Medication Compliance
- Security Risks:
  - Home Hazards
  - Neighborhood Risks
- Functional Status (ADL, IADLs, Timed Up and Go (TUG) test Scores)
- Frailty:
  - Physiotherapy
  - Identify Palliative Care need



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ACTIVITIES	INDEPENDENCE (1 point) NO supervision, direction or personal assistance	DEPENDENCE (0 points) WITH supervision, direction, personal assistance or total care
<b>BATHING</b> Point: _____	(1 POINT) Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area, or disabled extremity.	(0 POINT) Needs help in bathing more than one part of the body getting out of the tub or shower. Requires total bathing.
<b>DRESSING</b> Point: _____	(1 POINT) Gets clothes from closets and drawers and puts on clothes and other garments complete with fasteners. May have help tying shoes.	(0 POINTS) Needs help with dressing self or needs to be completely dressed.
<b>TOILETING</b> Point: _____	(1 POINT) Goes to toilet, gets on and off, arranges clothes, cleans genital area without help.	(0 POINTS) Needs help transferring to the toilet, cleaning self or uses bedpan or commode.
<b>TRANSFERRING</b> Point: _____	(1 POINT) Moves in and out of bed or chair unassisted. Mechanical transferring aides are acceptable.	(0 POINTS) Needs help in moving from bed to chair or requires a complete transfer.
<b>CONTINENCE</b> Point: _____	(1 POINT) Exercises complete self control over urination and defecation.	(0 POINTS) Is partially or totally incontinent of bowel or bladder.
<b>FEEDING</b> Point: _____	(1 POINT) Gets food from plate into mouth without help. Preparation of food may be done by another person.	(0 POINTS) Needs partial or total help with feeding or requires parenteral feeding.
<b>TOTAL POINTS= _____</b>	<b>6 = High(patient independent)</b>	<b>0 = Low (patient very dependent)</b>

# ADL: Activities of Daily Living (Katz):



Scoring: For each category, circle the item description that most closely resembles the client's highest functional level (either 0 or 1).			
<b>A. Ability to Use Telephone</b>		<b>E. Laundry</b>	
1. Operates telephone on own initiative-looks up and dials numbers, etc.	1	1. Does personal laundry completely	1
2. Dials a few well-known numbers	1	2. Launders small items-rinses stockings, etc.	1
3. Answers telephone but does not dial	1	3. All laundry must be done by others	0
4. Does not use telephone at all	0		
<b>B. Shopping</b>		<b>F. Mode of Transportation</b>	
1. Takes care of all shopping needs independently	1	1. Travels independently on public transportation or drives own car	1
2. Shops independently for small purchases	0	2. Arranges own travel via taxi, but does not otherwise use public transportation	1
3. Needs to be accompanied on any shopping trip	0	3. Travels on public transportation when accompanied by another	1
4. Completely unable to shop	0	4. Travel limited to taxi or automobile with assistance of another	0
		5. Does not travel at all	0
<b>C. Food Preparation</b>		<b>G. Responsibility for Own Medications</b>	
1. Plans, prepares and serves adequate meals independently	1	1. Is responsible for taking medication in correct dosages at correct time	1
2. Prepares adequate meals if supplied with ingredients	0	2. Takes responsibility if medication is prepared in advance in separate dosage	0
3. Heats, serves and prepares meals, or prepares meals, or prepares meals but does not maintain adequate diet	0	3. Is not capable of dispensing own medication	0
4. Needs to have meals prepared and served	0		
<b>D. Housekeeping</b>		<b>H. Ability to Handle Finances</b>	
1. Maintains house alone or with occasional assistance (e.g. "heavy work domestic help")	1	1. Manages financial matters independently (budgets, writes checks, pays rent, bills, goes to bank), collects and keeps track of income	1
2. Performs light daily tasks such as dish washing, bed making	1	2. Manages day-to-day purchases, but needs help with banking, major purchases, etc.	1
3. Performs light daily tasks but cannot maintain acceptable level of cleanliness	1	3. Incapable of handling money	0
4. Needs help with all home maintenance tasks	1		
5. Does not participate in any housekeeping tasks	0		
<b>Score</b>		<b>Score</b>	
<b>Total score</b>			
A summary score ranges from 0 (low function, dependent) to 8 (high function, independent) for women and 0 through 5 for men to avoid potential gender bias.			

# IADLs: Instrumental Activities of Daily Living (Lawton- Body)



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## Clinical Frailty Scale\*



**1 Very Fit** – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.



**2 Well** – People who have **no active disease symptoms** but are less fit than category 1. Often, they exercise or are very **active occasionally**, e.g. seasonally.



**3 Managing Well** – People whose **medical problems are well controlled**, but are **not regularly active** beyond routine walking.



**4 Vulnerable** – While **not dependent** on others for daily help, often **symptoms limit activities**. A common complaint is being “slowed up”, and/or being tired during the day.



**5 Mildly Frail** – These people often have **more evident slowing**, and need help in **high order IADLs** (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.



**6 Moderately Frail** – People need help with **all outside activities** and with **keeping house**. Inside, they often have problems with stairs and need **help with bathing** and might need minimal assistance (cuing, standby) with dressing.



**7 Severely Frail** – **Completely dependent for personal care**, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).



**8 Very Severely Frail** – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.



**9. Terminally Ill** - Approaching the end of life. This category applies to people with a **life expectancy <6 months**, who are **not otherwise evidently frail**.

### Scoring frailty in people with dementia

The degree of frailty corresponds to the degree of dementia. Common **symptoms in mild dementia** include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In **moderate dementia**, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.

In **severe dementia**, they cannot do personal care without help.

\* 1. Canadian Study on Health & Aging, Revised 2008.

2. K. Rockwood et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.

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## Elderly Mobility:

### ▶ Physiotherapist:

- Passive Exercises:
  - Muscle Tone:
    - Frailty Score
  - Mobility
    - ADLs
  - Functionality
    - IADLs
- Communication b/n Physiotherapist & Case Manager



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# NCD Oriented Feeding Program: Diabetes and Hypertension

- ▶ Feeding Program:
  - ▶ #50 meals daily
    - ▶ *Previously based on need.*
  - ▶ Meet NHI guidelines in support of patient's nutritional requirements as per protocols and KPI's in order to achieve better health outcomes.



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# Mental Health Pilot: Identify Depression and Dementia, etc.

- ▶ Pilot a mental health screening program:
  - ▶ Geriatric Depression Score (GDS):
    - ▶ Depression
  - ▶ Mini-Cog Exam
    - ▶ Dementia
      - ▶ Alzheimer, Parkinson's, Stroke



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### GERIATRIC DEPRESSION SCALE (GDS, SHORT FORM)

Choose the best answer for how you felt over the past week.

1. Are you basically satisfied with your life? .....  Yes  **No**
2. Have you dropped many of your activities and interests? .....  **Yes**  No
3. Do you feel that your life is empty? .....  **Yes**  No
4. Do you often get bored? .....  **Yes**  No
5. Are you in good spirits most of the time? .....  Yes  **No**
6. Are you afraid that something bad is going to happen to you? .....  **Yes**  No
7. Do you feel happy most of the time? .....  Yes  **No**
8. Do you often feel helpless? .....  **Yes**  No
9. Do you prefer to stay at home rather than going out and doing new things? ..  **Yes**  No
10. Do you feel you have more problems with memory than most? .....  **Yes**  No
11. Do you think it is wonderful to be alive now? .....  Yes  **No**
12. Do you feel pretty worthless the way you are now? .....  **Yes**  No
13. Do you feel full of energy? .....  Yes  **No**
14. Do you feel that your situation is hopeless? .....  **Yes**  No
15. Do you think that most people are better off than you are? .....  **Yes**  No

Score 1 point for each **bolded** answer. Cut-off: normal (0-5), above 5 suggests depression.

Source: Courtesy of Jerome A. Yesavage, M.D.

For additional information on administration and scoring refer to the following references:

1. Sheikh JI, Yesavage JA. Geriatric Depression Scale: recent evidence and development of a shorter version. *Clin Gerontol*. 1986; 5:165-172.
2. Yesavage JA, Brink TL, Rose TL, et al. Development and validation of a geriatric depression scale a preliminary report. *J Psychiatr Res*. 1983, 17:27.

Patient's Name \_\_\_\_\_ DOB \_\_\_\_\_

Date \_\_\_\_\_ Person Administering Test \_\_\_\_\_

Medical Record # \_\_\_\_\_

# Geriatric Depression Scale (GDS):



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# MINI-COG™

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## Instructions

INSTRUCTIONS FOR ADMINISTRATION	SCORING/SPECIAL INSTRUCTIONS						
<p>1. Get patient's attention and ask him or her to remember three unrelated words. Ask patient to repeat the words to ensure the learning was correct.</p>	<ul style="list-style-type: none"> <li>Allow patient three tries, then go to next item.</li> <li>The following word lists have been validated in a clinical study.<sup>1-3</sup></li> </ul> <table border="0"> <tr> <td> <b>Version 1</b>  <ul style="list-style-type: none"> <li>Banana</li> <li>Sunrise</li> <li>Chair</li> </ul> </td> <td> <b>Version 3</b>  <ul style="list-style-type: none"> <li>Village</li> <li>Kitchen</li> <li>Baby</li> </ul> </td> <td> <b>Version 5</b>  <ul style="list-style-type: none"> <li>Captain</li> <li>Garden</li> <li>Picture</li> </ul> </td> </tr> <tr> <td> <b>Version 2</b>  <ul style="list-style-type: none"> <li>Daughter</li> <li>Heaven</li> <li>Mountain</li> </ul> </td> <td> <b>Version 4</b>  <ul style="list-style-type: none"> <li>River</li> <li>Nation</li> <li>Finger</li> </ul> </td> <td> <b>Version 6</b>  <ul style="list-style-type: none"> <li>Leader</li> <li>Season</li> <li>Table</li> </ul> </td> </tr> </table>	<b>Version 1</b> <ul style="list-style-type: none"> <li>Banana</li> <li>Sunrise</li> <li>Chair</li> </ul>	<b>Version 3</b> <ul style="list-style-type: none"> <li>Village</li> <li>Kitchen</li> <li>Baby</li> </ul>	<b>Version 5</b> <ul style="list-style-type: none"> <li>Captain</li> <li>Garden</li> <li>Picture</li> </ul>	<b>Version 2</b> <ul style="list-style-type: none"> <li>Daughter</li> <li>Heaven</li> <li>Mountain</li> </ul>	<b>Version 4</b> <ul style="list-style-type: none"> <li>River</li> <li>Nation</li> <li>Finger</li> </ul>	<b>Version 6</b> <ul style="list-style-type: none"> <li>Leader</li> <li>Season</li> <li>Table</li> </ul>
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<p>2. Ask patient to draw the face of a clock. After numbers are on the face, ask patient to draw hands to read 10 minutes after 11:00 (or 20 minutes after 8:00).</p>	<ul style="list-style-type: none"> <li>Either a blank piece of paper or a preprinted circle (other side) may be used.</li> <li>A correct response is all numbers placed in approximately the correct positions AND the hands pointing to the 11 and 12 (or the 4 and 8).</li> <li>These two specific times are more sensitive than others.</li> <li>A clock should not be visible to the patient during this task.</li> <li>Refusal to draw a clock is scored abnormal.</li> <li>Move to next step if clock not complete within three minutes.</li> </ul>						
<p>3. Ask the patient to recall the three words from Step 1.</p>							

## Scoring

<b>3 recalled words</b>	Negative for cognitive impairment
<b>1-2 recalled words + normal CDT</b>	Negative for cognitive impairment
<b>1-2 recalled words + abnormal CDT</b>	Positive for cognitive impairment
<b>0 recalled words</b>	Positive for cognitive impairment

## References

- Borson S, Scanlan J, Brush M, Vitaliano P, Dokmak A. The mini-cog: a cognitive "vital signs" measure for dementia screening in multi-lingual elderly. *Int J Geriatr Psychiatry*. 2000;19(11):1021-1027.
- Borson S, Scanlan JM, Chen P, Ganguli M. The Mini-Cog as a screen for dementia: validation in a population-based sample. *J Am Geriatr Soc*. 2003;51(10):1451-1454.
- McCartan JR, Anderson P, Koskovic MA, et al. Finding dementia in primary care: the results of a clinical demonstration project. *J Am Geriatr Soc*. 2012;60(2):210-217.

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# Mini-Cog Score



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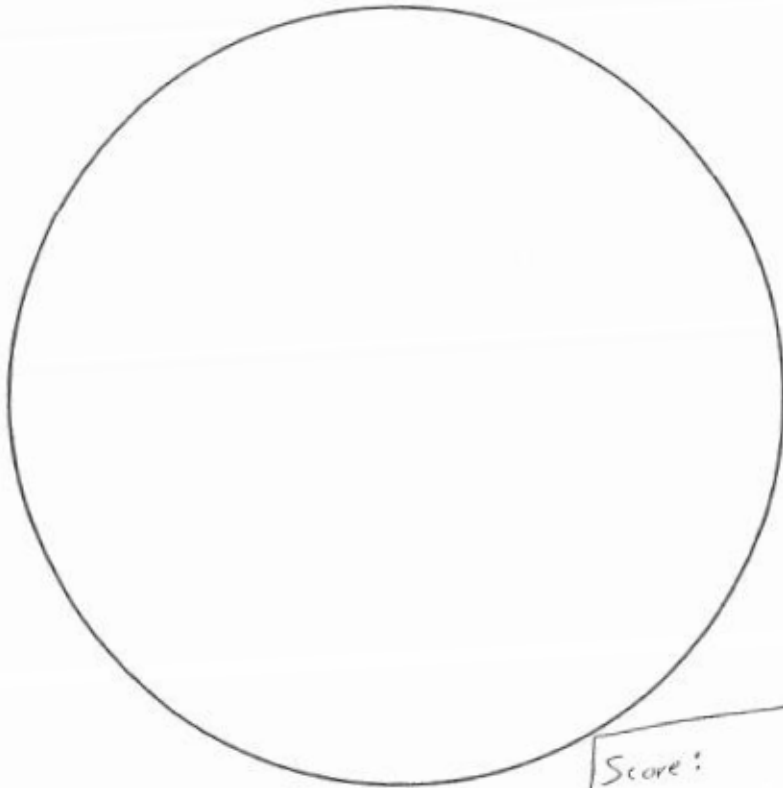
# CLOCK DRAWING TEST

Patient Name: \_\_\_\_\_

DOB: \_\_\_\_\_

Today's

Date: \_\_\_\_\_



Score: \_\_\_\_\_

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# Advanced Progressive Chronic Disease Program\*

- ▶ \*Palliative care and End of Life Care: Cancer and Chronic NCD Patients
- ▶ Referral Mechanism:
  - ▶ Based on Frailty Score
  - ▶ Medical Team Referral:
    - Mercy Clinic
    - Oncologist
    - Belize Hospice Care Foundation
    - Belize Cancer Society
- ▶ Objective: Development of a patient plan of care, based on patient, caregivers and families assessed individual needs and goals.
  - ▶ Major Component: **Pain Management**



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# Specific Criteria for Palliative Care\*:

- ▶ Little or no possibility of response to curative treatment
- ▶ Progressive course with frequent crises of needs and demands.
- ▶ Patients with advanced functional limitation and /or complex immobilization.
- ▶ Have at least one primary caregiver.
  - ▶ “Primary Caregiver”: any person who agrees to take basic care in terms of food, hygiene and treatment administration.

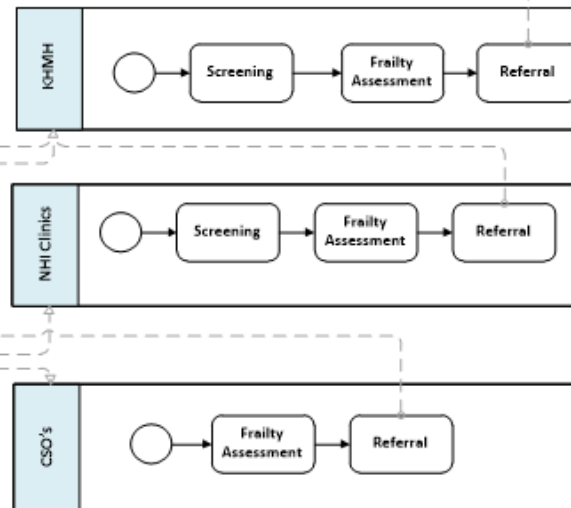
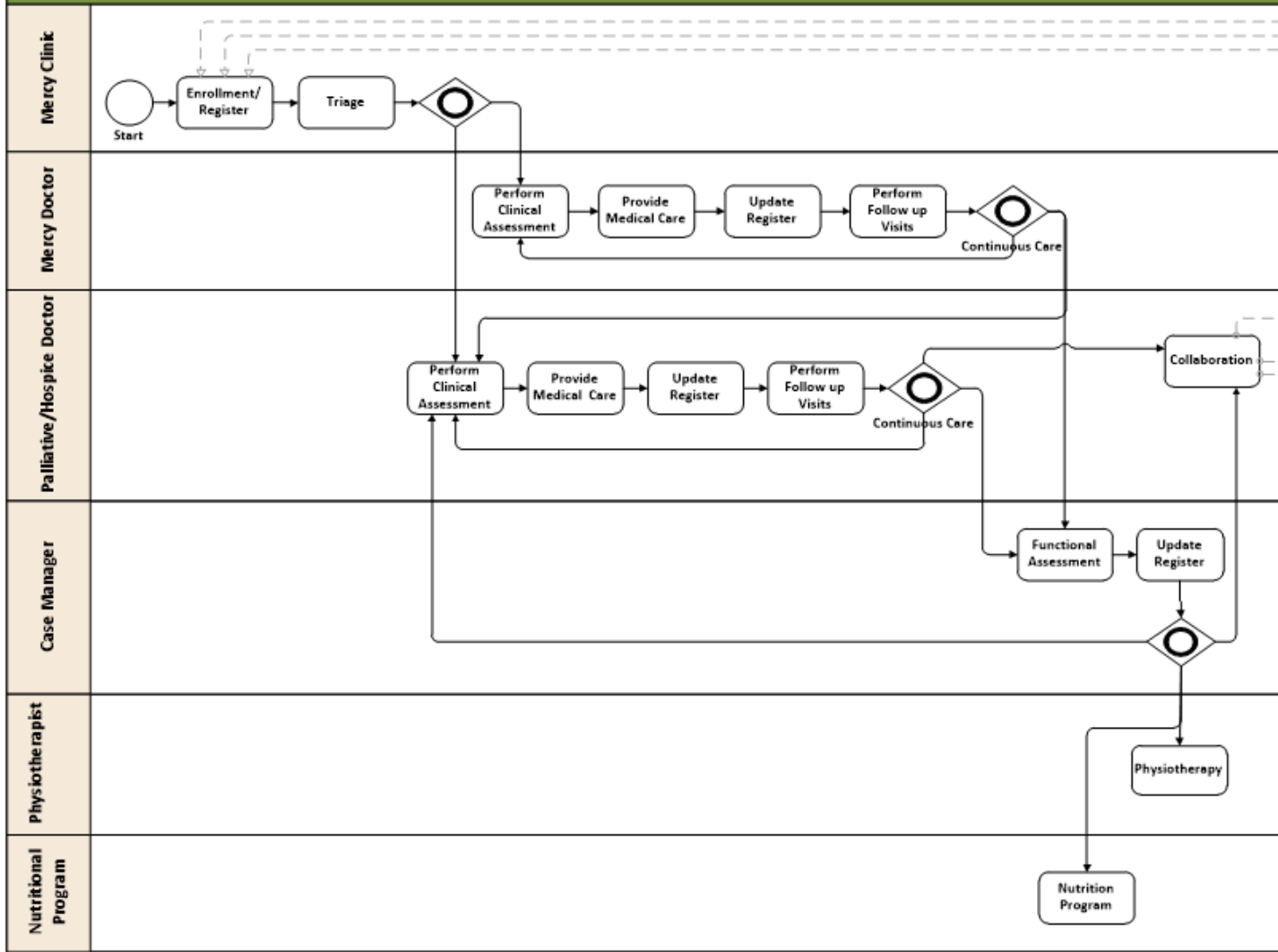


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# NHI Geriatric Care Management



# What is the Future for the Elderly?

- ▶ Develop a country policy for the inclusion of the elderly in the productive sector.
- ▶ Develop a Quality of Life Policy for Future Elderly Population:
  - ▶ So that there is continued Productivity As an Elderly (60 to Life Expectancy):
    - ▶ How?:
      - ▶ Develop & Promote a Culture to continue to participate in the control of the modifiable risk factors for NCDs
      - ▶ Develop & Promote Incentive Programs Towards a Culture of Self Care/Auto-responsibility:
        - ▶ E.g.: Explore financial incentives.
  - > Comprehensive Holistic Approach to Care:
    - Multidisciplinary Team (Physical, Mental and Social Wellbeing)
  - > Solidarity of Primary Healthcare for the Elderly.





