Bond University

Research Repository

# Integrated care for older people (ICOPE): Handbook: guidance for person-centred assessment and pathways in primary care

Cesari, Matteo; Keeffe, Jill; Dent, E; Kondo, Naoki; Laiteerapong, Arunee; Izquierdo, Mikel; Lloyd-Sherlock, Peter; Gutiérrez-Robledo, Luis Miguel; McMahon, Catherine; Ndegwa, Serah; Ogawa, Hiroshi; Payette, Hélène; Philp, Ian; Mañas, Leocadio Rodriguez; Starr, John; Tremblay, Kelly; Valenzuela, Michael; Vellas, Bruno; Visser, Marjolein; Zdanys, Kristina

*Licence:*
Other

Link to output in Bond University research repository.

*Recommended citation(APA):*
Cesari, M., Keeffe, J., Dent, E., Kondo, N., Laiteerapong, A., Izquierdo, M., Lloyd-Sherlock, P., Gutiérrez-Robledo, L. M., McMahon, C., Ndegwa, S., Ogawa, H., Payette, H., Philp, I., Mañas, L. R., Starr, J., Tremblay, K., Valenzuela, M., Vellas, B., Visser, M., & Zdanys, K. (2019). *Integrated care for older people (ICOPE): Handbook: guidance for person-centred assessment and pathways in primary care*. World Health Organization. https://iris.who.int/handle/10665/326843

**General rights**
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

For more information, or if you believe that this document breaches copyright, please contact the Bond University research repository coordinator.

Download date: 11 Sep 2026

ICOPE

INTEGRATED CARE FOR OLDER PEOPLE

# Handbook

## Guidance on person-centred assessment and pathways in primary care

World Health Organization

ICOPE

INTEGRATED CARE FOR OLDER PEOPLE

# Handbook

## Guidance on person-centred assessment and pathways in primary care

World Health Organization

Integrated care for older people (ICOPE): Guidance for person-centred assessment and pathways in primary care

WHO/FWC/ALC/19.1

**© World Health Organization 2019**

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; https://creativecommons.org/licenses/by-nc-sa/3.0/igo).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization.

**Suggested citation.** Integrated care for older people (ICOPE): Guidance for person-centred assessment and pathways in primary care. Geneva: World Health Organization; 2019 (WHO/FWC/ALC/19.1). Licence: CC BY-NC-SA 3.0 IGO.

**Cataloguing-in-Publication (CIP) data.** CIP data are available at http://apps.who.int/iris.

**Sales, rights and licensing.** To purchase WHO publications, see http://apps.who.int/bookorders. To submit requests for commercial use and queries on rights and licensing, see https://www.who.int/publishing/copyright

**Third-party materials.** If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

**General disclaimers.** The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

Design and layout by Erica Lefstad.

Printed in Switzerland.

# CONTENTS


Acknowledgements iv

Abbreviations v

1. **Integrated care for older people (ICOPE)** 1

2. **Optimizing capacities and abilities: towards healthy ageing for all** 5

3. **Assessing older people's needs and developing a personalized care plan** 9

4. **Care pathways to manage COGNITIVE DECLINE** 19

5. **Care pathways to improve MOBILITY** 25

6. **Care pathways to manage MALNUTRITION** 33

7. **Care pathways to manage VISUAL IMPAIRMENT** 41

8. **Care pathways to manage HEARING LOSS** 51

9. **Care pathways to manage DEPRESSIVE SYMPTOMS** 59

10. **Care pathways for SOCIAL CARE AND SUPPORT** 67

11. **Care pathways to SUPPORT THE CAREGIVER** 75

12. **Develop a personalized care plan** 78

13. **How health and long-term care systems can support implementation of the WHO ICOPE approach** 81

References 86

# ACKNOWLEDGEMENTS

This handbook draws on the work of the many people around the world dedicated to the care and support of older people. Islene Araujo de Carvalho and Yuka Sumi in the World Health Organization (WHO) Department of Ageing and Life Course led the preparation of this handbook. A core group responsible for writing the handbook and developing the pathways included Islene Araujo de Carvalho, John Beard, Yuka Sumi, Andrew Briggs (Curtin University, Australia) and Finbarr Martin (King's College London, United Kingdom). Sarah Johnson and Ward Rinehart of Jura Editorial Services were responsible for writing the final text.

Many other WHO staff from the regional offices and a range of departments contributed both to specific sections relevant to their areas of work and to the development of the care pathways: Shelly Chadha (WHO Department of Management of Noncommunicable Diseases, Disability, Violence and Injury Prevention), Neerja Chowdhary (WHO Department of Mental Health and Substance Abuse), Tarun Dua (WHO Department of Mental Health and Substance Abuse), Maria De Las Nieves Garcia Casal (WHO Department of Nutrition for Health and Development), Zee A Han (WHO Department of Management of Noncommunicable Diseases, Disability, Violence and Injury Prevention), Dena Javadi (WHO Department of Alliance for Health Policy and Systems Research), Silvio Paolo Mariotti (WHO Department of Management of Noncommunicable Diseases, Disability, Violence and Injury Prevention), Alarcos Cieza (WHO Department of Management of Noncommunicable Diseases, Disability, Violence and Injury Prevention), Alana Margaret Officer (WHO Department of Ageing and Life Course), Juan Pablo Peña-Rosas (WHO Department of Nutrition for Health and Development), Taiwo Adedamola Oyelade (Family and Reproductive Health Unit, WHO Regional Office for Africa), Ramez Mahaini (Reproductive and Maternal Health, WHO Regional Office for the Eastern Mediterranean), Karen Reyes Castro (WHO Department of Management of Noncommunicable Diseases, Disability, Violence and Injury Prevention), Enrique Vega Garcia (Healthy Life Course, Pan American Health Organization/ WHO).

The handbook benefited from the rich inputs of a number of experts and academics who also contributed to the writing of specific chapters: Matteo Cesari (Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Italy), Jill Keeffe (WHO Collaborating Centre for Prevention of Blindness, India), Elsa Dent (The University of Queensland, Australia), Naoki Kondo (University of Tokyo, Japan), Arunee Laiteerapong (Chulalongkorn University, Thailand), Mikel Izquierdo (Universidad Pública de Navarra, Spain), Peter Lloyd-Sherlock (University of East Anglia, United Kingdom), Luis Miguel Gutierrez Robledo (Institutos Nacionales de Salud de México, Mexico), Catherine McMahon (Macquarie University, Australia), Serah Ndegwa (University of Nairobi, Kenya), Hiroshi Ogawa (Niigata University, Japan), Hélène Payette (Université de Sherbrooke, Canada), Ian Philp (University of Stirling, United Kingdom), Leocadio Rodriguez-Mañas (University Hospital of Getafe, Spain), John Starr (University of Edinburgh, United Kingdom), Kelly Tremblay (University of Washington, United States of America), Michael Valenzuela (University of Sydney, Australia), Bruno Vellas (WHO Collaborating Centre for Frailty, Clinical Research and Geriatric Training, Gérontopôle, Toulouse University Hospital, France), Marjolein Visser (Vrije Universiteit Amsterdam, the Netherlands), Kristina Zdanys (University of Connecticut, United States of America), and the WHO Collaborating Centres for Frailty, Clinical Research and Geriatric Training (Gérontopôle, Toulouse University Hospital, France) and for Public Health Aspects of Musculoskeletal Health and Aging (University of Liège, Belgium).

Australian National Health and Medical Research Council, Global Alliance for Musculoskeletal Health and Chulalongkorn University, Thailand, supported the development of this guidance by providing staff to develop its contents and by organizing the experts' meetings.

We also benefited from the inputs of participants at the annual meeting of WHO Clinical Consortium on Healthy Ageing, December 2018.

The WHO Department Ageing and Life Course acknowledges the financial support of the Government of Japan, the Government of Germany and the Kanagawa Prefectural Government in Japan.

Editing by Green Ink.

# ABBREVIATIONS

| | |
|---|---|
| ADLs | activities of daily living |
| BMI | body mass index |
| CBT | cognitive behavioural therapy |
| ICOPE | integrated care for older people |
| MNA | mini nutritional assessment |
| OSN | oral supplemental nutrition |
| PTA | pure tone audiometry |
| SPPB | short physical performance battery |
| WHO | World Health Organization |
| ✶ | Denotes that specialized knowledge and skills are needed to provide the care |

ICOPE

# 1 INTEGRATED CARE FOR OLDER PEOPLE (ICOPE)

**KEY POINTS**

- For the health-care system, the key to supporting healthy ageing for all is optimizing people's intrinsic capacity and functional ability, even as ageing gradually reduces capacity.
- Care-dependency can be prevented if priority conditions associated with declines in intrinsic capacity are promptly diagnosed and managed.
- Health and social care workers in the community at the primary care level can identify older people with losses in capacities and provide appropriate care to reverse or slow these losses by following this guidance. This approach is a simple and low-cost one.
- Conditions associated with declines in intrinsic capacity are interrelated and so require an integrated and person-centred approach to assessment and management.

The 2015 *World report on ageing and health* defines the goal of healthy ageing as helping people to develop and maintain the functional ability that enables well-being. Functional ability is defined as the "health-related attributes that enable people to be and to do what they have reason to value". Functional ability consists of the intrinsic capacity of the individual, the environment of the individual and the interactions between them. Intrinsic capacity is "the composite of all the physical and mental capacities that an individual can draw on" *(1).*

This concept of healthy ageing inspires a new focus for health care in older age – a focus on optimizing people's intrinsic capacity and functional ability as they age.

In October 2017, the World Health Organization (WHO) published *Integrated care for older people: Guidelines on community-level interventions to manage declines in intrinsic capacity (2).* These guidelines set out 13 evidence-based recommendations for health and care workers to help develop and carry out person-centred integrated care for older people (ICOPE) at the community level. The ICOPE approach embodies the focus on optimizing intrinsic capacity and functional ability as the key to healthy ageing. These recommendations can serve as the basis for national guidelines. They can be used to support the inclusion, in primary care programmes and essential care packages for universal health coverage, of services to prevent care-dependency.

The guidance in this handbook will help community health and care workers to put the ICOPE recommendations into practice. It offers care pathways to manage priority health conditions associated with declines in intrinsic capacity – loss of mobility, malnutrition, visual impairment, hearing loss, cognitive decline, depressive symptoms. These pathways start with a screening test to identify those older people who are most likely to be experiencing some losses in intrinsic capacity already. Health and social care workers can easily carry out this screening in the community. This is the doorway to a more in-depth assessment of the health and social care needs of older people. This assessment leads, in turn, to a personalized care plan that integrates strategies to reverse, slow or prevent further declines in capacity, treat diseases and meet social care needs. The person-centred assessment and the development of the care plan usually require trained health professionals in a primary health-care setting, such as primary care physicians and nurses. However, declines in intrinsic capacity often can be managed in the community where the older person and caregivers live, with the support of a multidisciplinary team.

## WHY DO WE NEED INTEGRATED CARE FOR OLDER PEOPLE (ICOPE)?

Older people make up a larger part of the world's population than ever before. In 2017, there were an estimated 962 million people aged 60 years or over in the world, comprising 13% of the global population *(3).* This percentage will rise rapidly in the coming decades, particularly in low- and middle-income countries. By 2050, one person in every five will be 60 years of age or older. This trend began some 50 years ago. It reflects the combined impact of rapidly falling fertility rates and rapidly increasing life expectancy in much of the world, often accompanying socioeconomic development.

Maintaining the health of older people is an investment in human and social capital and supports the United Nations Sustainable Development Goals (SDGs) *(4).* At the same time, caring for the growing older population creates challenges for health systems. Health-care resources will need to be rebalanced across age groups. A fundamental change in public health approaches to ageing is needed.

Conventional approaches to health care for older people have focused on medical conditions, putting the diagnosis and management of these at the centre. Addressing these diseases remains important, but focusing too much on them tends to overlook difficulties with hearing, seeing, remembering, moving and the other common losses in intrinsic capacity that come with ageing. The well-being of every person will benefit at some time in their life from the identification and management of these problems. Attention throughout the health-care system to the intrinsic capacities of older people will contribute broadly to the welfare of a large and growing part of the population.

Most health-care professionals lack the guidance and training to recognize and effectively manage declines in intrinsic capacity. As populations age, there is a pressing need to develop comprehensive community-based approaches that include interventions to prevent declines in intrinsic capacity, foster healthy ageing and support caregivers of older people. WHO's ICOPE approach addresses this need.

## WHO IS THIS GUIDANCE FOR?

The primary intended audience for this handbook is health and social care workers in the community and in primary care settings. The guidance should also inform health-care workers whose specialized knowledge will be called on, as needed, to assess and to plan care for people with losses in intrinsic capacity and functional ability.

Additionally, professionals responsible for developing training in medicine, nursing and allied health and public health fields may draw on both the concepts and the practical approaches described here. Other audiences include health-care managers and policy-makers, such as national, regional and district programme managers in charge of planning and organizing health-care services, as well as agencies that fund and/or carry out public health programmes, and non-governmental organizations and charities that serve older people in community settings.

### GUIDING PRINCIPLES

The following principles underpin this guidance:

- ✓ Older people have the right to the best possible health.
- ✓ Older people should have equal opportunity to access the determinants of healthy ageing, regardless of social or economic status, place of birth or residence or other social factors.
- ✓ Care should be provided equally to all, without discrimination, particularly without discrimination based on gender or age.

### WHAT DOES THIS GUIDANCE OFFER?

This guidance seeks to support health and social care workers in community settings to detect and manage declines in intrinsic capacity, based on WHO's *Guidelines on community-level interventions to manage declines in intrinsic capacity (2)*, and to address the health and social care needs of older adults comprehensively.

**This guidance describes how to:**

- set person-centred goals **(Chapter 2)**;
- support self-management **(Chapter 2)**;
- develop a care plan that includes multiple interventions to manage conditions associated with losses in intrinsic capacity **(Chapter 3)**;
- screen for loss in intrinsic capacity and assess health and social care needs **(Chapters 4–10)**;
- support caregivers **(Chapter 11)**; and
- develop a personalized care plan **(Chapter 12)**.

## THE ICOPE APPROACH IN CONTEXT

**Universal health coverage** is the foundation for achieving the health objective of the SDGs *(4).* To achieve SDG3, older people's health and social care needs must be addressed in an integrated manner and with continuity of care over the long term. The WHO *Strategy and action plan on ageing and health (5)* outlines the role of health systems in promoting healthy ageing by optimizing intrinsic capacity. The ICOPE recommendations *(2)* and this guidance contribute to achieving the goals of that strategy.

This guidance is also a tool for implementing the WHO framework on integrated, people-centred health services *(6).* The framework calls for shifting the way that health services are managed and delivered, towards an integrated, people-centred approach. In the context of this framework, ICOPE proposes care for older people based on:

- an **assessment** of individual needs, preferences and goals;
- the development of a **personalized care plan**;
- **coordinated services**, driven towards the single goal of maintaining intrinsic capacity and functional ability and delivered as much as possible through primary and community-based care.

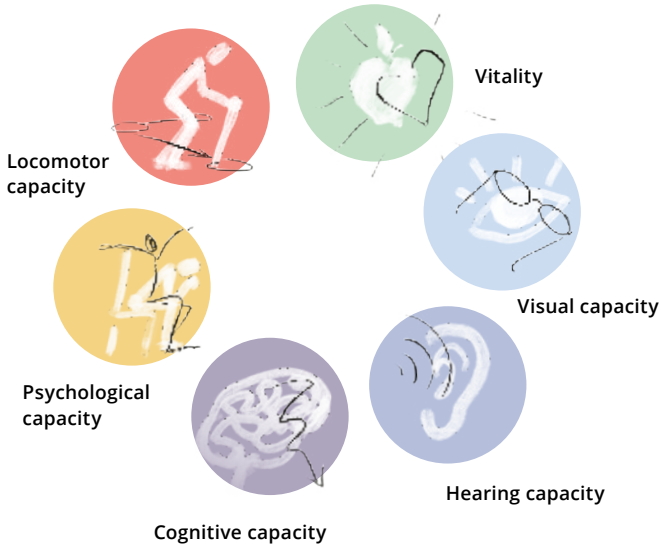
# 2 OPTIMIZING CAPACITIES AND ABILITIES: TOWARDS HEALTHY AGEING FOR ALL

The WHO *World report on ageing and health* defines healthy ageing as developing and maintaining the functional ability that fosters well-being *(1)*.

This guidance supports healthy ageing by addressing the following priority conditions associated with declines across domains of intrinsic capacity (Figure 1), older people's social care needs, and caregiver support.

- **Cognitive decline** (Chapter 4)
- **Limited mobility** (Chapter 5)
- **Malnutrition** (Chapter 6)
- **Visual impairment** (Chapter 7)
- **Hearing loss** (Chapter 8)
- **Depressive symptoms** (Chapter 9)
- **Social care and support** (Chapter 10)
- **Caregiver support** (Chapter 11)

**FIG. 1.**
**KEY DOMAINS OF INTRINSIC CAPACITY**




## HOW DOES INTRINSIC CAPACITY CHANGE OVER THE LIFE COURSE?

**Figure 2** shows the typical pattern of intrinsic capacity and functional ability across adult life. Intrinsic capacity and functional ability decline with increasing age as a result of the ageing process as well as underlying diseases. This typical pattern can be divided into three common periods: a period of relatively high and stable capacity, a period of declining capacity and a period of significant loss of capacity, characterized by dependence on care.

There is a wide range of intrinsic capacity around the average pattern. These differences are evident both within and between countries. They are reflected in persistent differences in life expectancies, which range from 82 years or more in such countries as Australia, Japan and Switzerland, to less than 55 years in such countries as the Central African Republic, Chad and Somalia.

Variation in intrinsic capacity is far greater across people in older age than across younger groups. Such diversity is one of the hallmarks of ageing. One individual may have an age difference of 10 years or more compared with another person but a similar intrinsic capacity and/or functional ability. This is why chronological age is a poor marker of health status.

## INTERVENING TO OPTIMIZE INTRINSIC CAPACITY

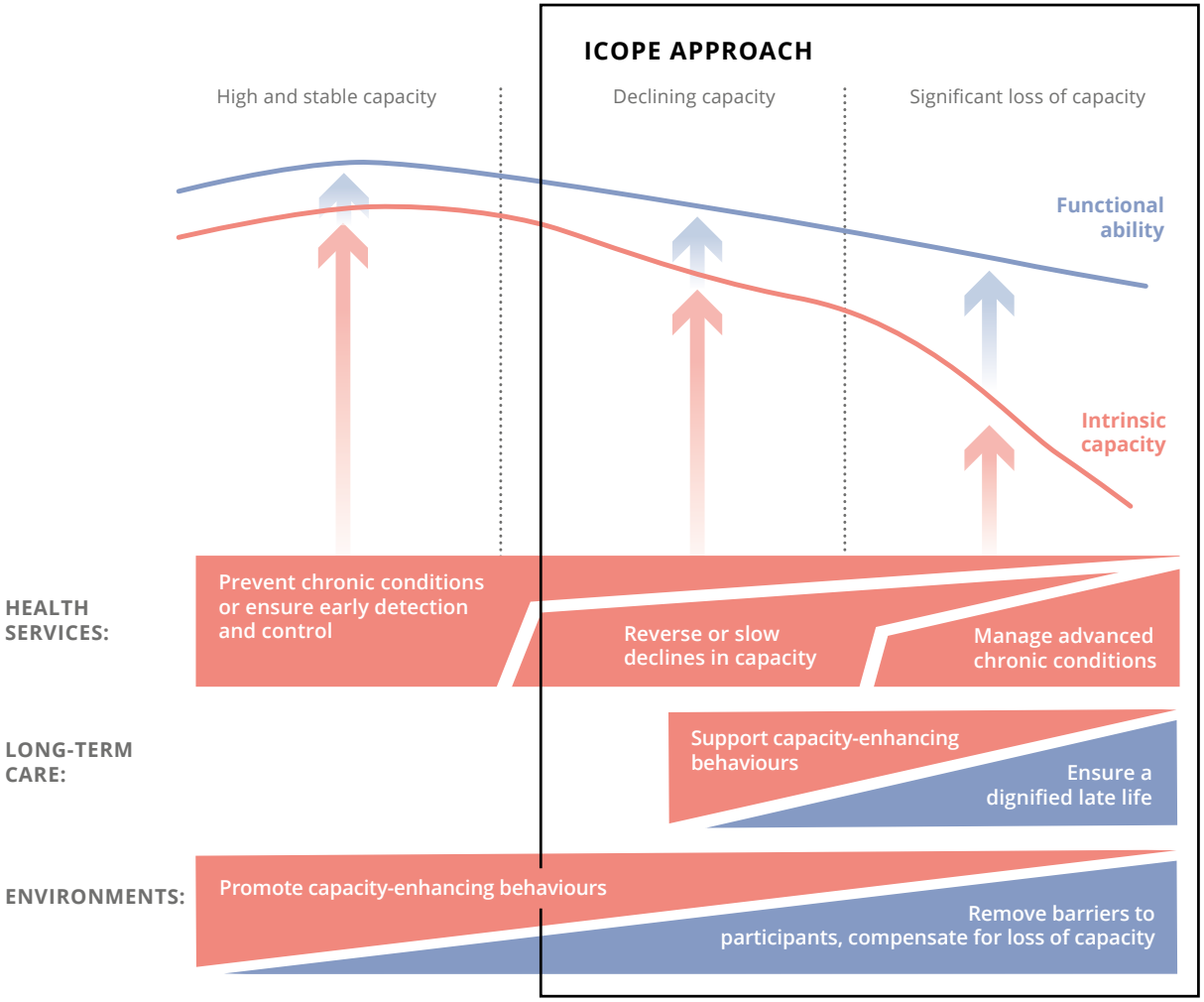
Identifying conditions associated with losses in intrinsic capacity provides an opportunity to intervene to slow, stop or reverse the declines **(Figure 2)**. Health-care workers in clinical settings and in the community can detect tracer conditions associated with declines in intrinsic capacity. Repeated assessments over time make it possible to monitor any changes that are larger than expected so that specific interventions can be offered before functional ability is lost.

In this way interventions delivered in community settings can prevent a person from becoming frail or care-dependent. Multi-component interventions appear to be more effective.

### INTRINSIC CAPACITY AND FUNCTIONAL ABILITY

WHO defines intrinsic capacity as the combination of the individual's physical and mental, including psychological, capacities. Functional ability is the combination and interaction of intrinsic capacity with the environment a person inhabits.

**FIGURE 2. A PUBLIC-HEALTH FRAMEWORK FOR HEALTHY AGEING: OPPORTUNITIES FOR PUBLIC HEALTH ACTION ACROSS THE LIFE COURSE**




*Source:* World Health Organization, 2015 *(1)*.

Many of the characteristics that determine intrinsic capacity can be modified. These include health-related behaviours and the presence of diseases. There is thus a strong rationale for introducing effective interventions to optimize intrinsic capacity. This rationale underpins the ICOPE approach and this guidance.

The different health conditions associated with losses in intrinsic capacity interact at several levels. Hearing loss, for example, is associated with cognitive decline. Nutrition enhances the effect of exercise and has a direct impact on increasing muscle mass and strength. These interactions make necessary an integrated approach to the screening, assessment and management of declines in intrinsic capacity.

# 3 ASSESSING OLDER PEOPLE'S NEEDS AND DEVELOPING A PERSONALIZED CARE PLAN

**KEY POINTS**

- The identification of older people in the community with priority conditions associated with declines in intrinsic capacity can be done with the help of the integrated care for older people (ICOPE) screening tool.
- Those identified with these conditions are referred to a primary health-care clinic for in-depth assessment, which informs the development of a personalized care plan.
- The care plan may include multiple interventions to manage declines in intrinsic capacity and to optimize functional ability, such as by physical exercises, oral supplemental nutrition, cognitive stimulation and home adaptations to prevent falls.

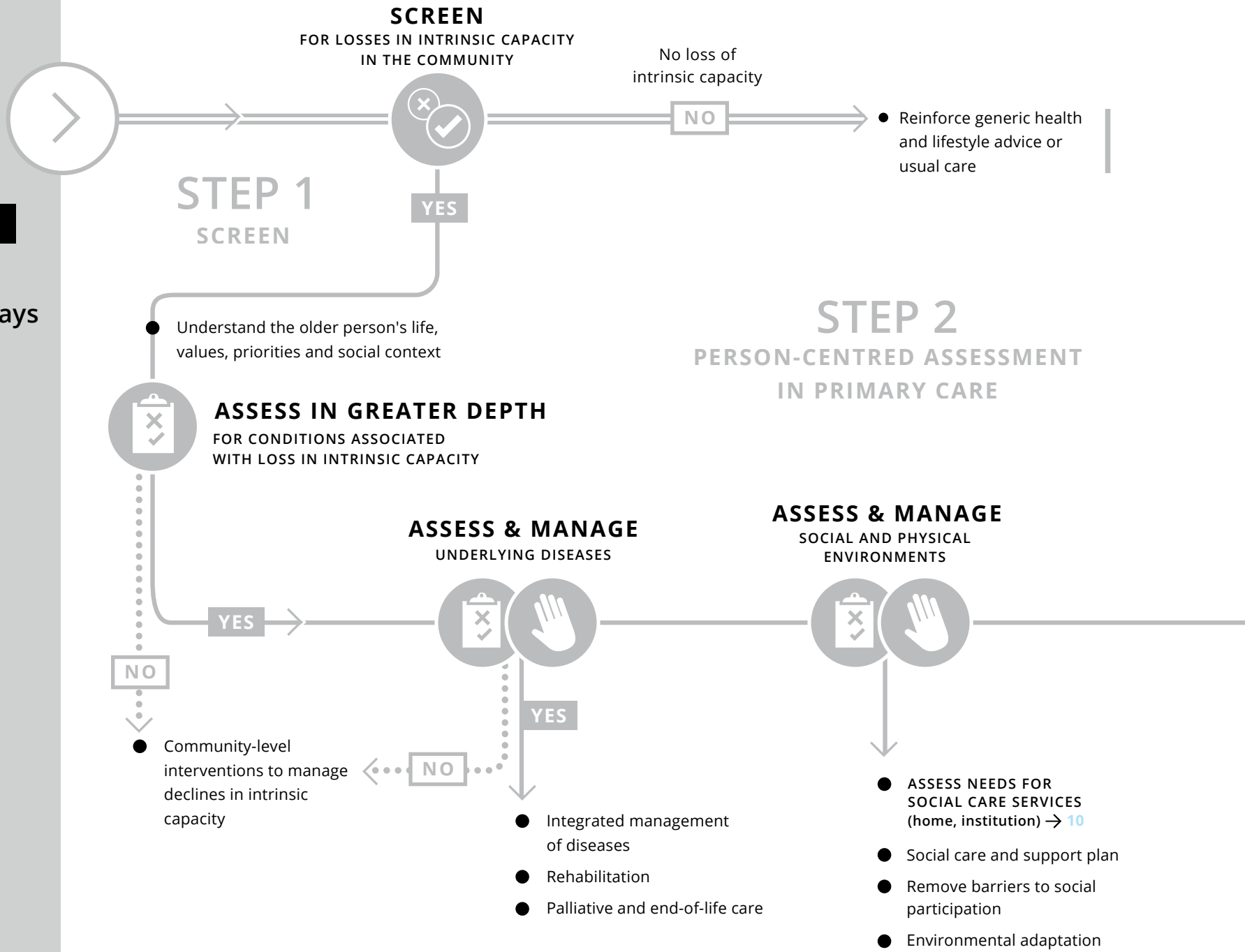
Person-centred care is grounded in the perspective that older people are more than the vessels of their disorders or health conditions; all people, whatever their ages, are individuals with unique experiences, needs and preferences. Person-centred care addresses individuals' health and social care needs rather than being driven by isolated health conditions or symptoms. A person-centred, integrated approach also embraces the context of individuals' daily lives, including the impact of their health and needs on those close to them and in their communities.

There are five steps to meeting older people's health and social care needs with an integrated care approach, as shown in the following general pathway.

# 3

## Generic care pathway

**Person-centered assessment and pathways in primary care**



# STEP 3

## DEVELOP PERSONALIZED CARE PLAN

- Person-centred goal setting
- Multidisciplinary team
- Design a care plan including multi-component interventions, management of underlying diseases, self-care and self-management, and social care and support

# STEP 4

## ENSURE REFERRAL PATHWAY AND MONITORING OF THE CARE PLAN

WITH LINKS TO SPECIALIZED GERIATRIC CARE

# STEP 5

## ENGAGE COMMUNITIES AND SUPPORT CAREGIVERS

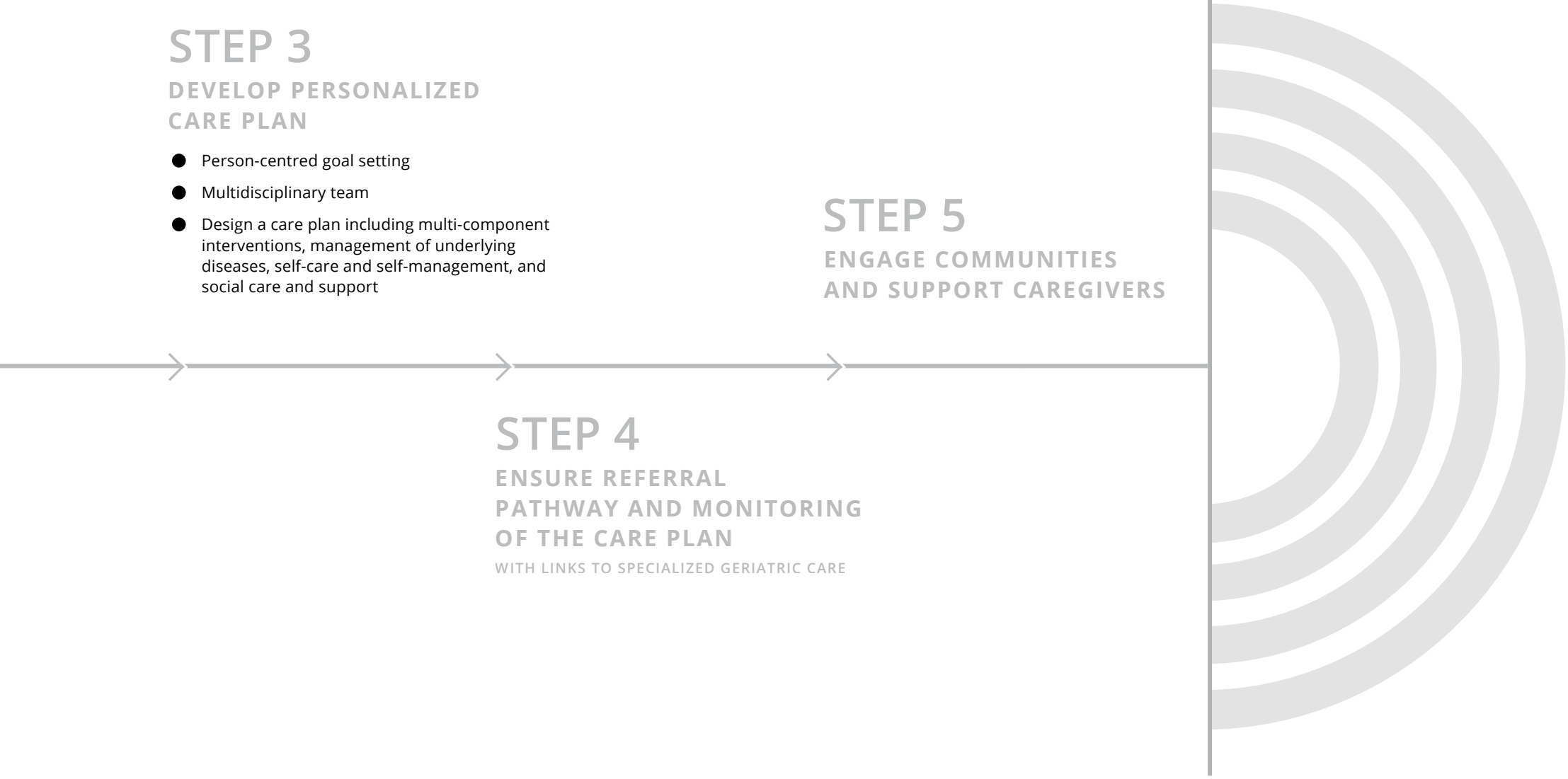


**TABLE 1.**

# WHO ICOPE SCREENING TOOL

| Priority conditions associated with declines in intrinsic capacity | Tests | Assess fully any domain with a checked circle |
|---|---|---|
| **COGNITIVE DECLINE** (Chapter 4) | 1. Remember three words: flower, door, rice (for example) | |
| | 2. Orientation in time and space: What is the full date today? Where are you now (home, clinic, etc)? | ○ Wrong to either question or does not know |
| | 3. Recalls the three words? | ○ Cannot recall all three words |
| **LIMITED MOBILITY** (Chapter 5) | Chair rise test: Rise from chair five times without using arms. Did the person complete five chair rises within 14 seconds? | ○ No |
| **MALNUTRITION** (Chapter 6) | 1. Weight loss: Have you unintentionally lost more than 3 kg over the last three months? | ○ Yes |
| | 2. Appetite loss: Have you experienced loss of appetite? | ○ Yes |
| **VISUAL IMPAIRMENT** (Chapter 7) | Do you have any problems with your eyes: difficulties in seeing far, reading, eye diseases or currently under medical treatment (e.g. diabetes, high blood pressure)? | ○ Yes |
| **HEARING LOSS** (Chapter 8) | Hears whispers (whisper test) ***or*** Screening audiometry result is 35 dB or less ***or*** Passes automated app-based digits-in-noise test | ○ Fail |
| **DEPRESSIVE SYMPTOMS** (Chapter 9) | Over the past two weeks, have you been bothered by – feeling down, depressed or hopeless? | ○ Yes |
| | – little interest or pleasure in doing things? | ○ Yes |

# STEP 1

## SCREEN FOR DECLINES IN INTRINSIC CAPACITY

With the process and tools in this guidance, trained health-care workers can start the identification of people with losses in intrinsic capacity in a community or at home. To do this, they can use the ICOPE screening tool **(Table 1)**. The ICOPE screening tool is the first step in each care pathway presented in **Chapters 4 to 9** and covers six relevant conditions across the domains of intrinsic capacity (**Figure 1 on page 5** ). Community outreach strategies, such as home visits by community health workers and self-assessments using mobile phone technologies, can be used to find cases.

Those who show signs of, or report losses in capacity at this first step should go on to a full assessment. Full assessment is likely to require health-care professionals with the necessary training, often but not necessarily a medical doctor.

Health and care workers must ensure that any limitation in capacity identified by the ICOPE screening tool always triggers further in-depth assessment. Findings should inform the development of the personalized care plan.

# STEP 2

## UNDERTAKE A PERSON-CENTRED ASSESSMENT IN PRIMARY CARE

A person-centred assessment of an older person's health and social care needs in primary care is critical to then optimizing intrinsic capacity.

**2A. Understand the life of the older person**
A person-centred assessment starts not only with a conventional history taking, but a thorough understanding of the person's life, values, priorities and preferences for the course of their health and its management.

**2B. Assess in greater depth for conditions associated with loss in intrinsic capacity**
The assessment also evaluates in more depth conditions associated with losses in intrinsic capacity. The care pathways for key conditions across the domains of intrinsic capacity, presented in **Chapters 4 to 9**, are organized generally into the three components, with screening in the community at the top, assessment in primary care in the middle, and personalized care planning at the end.

**2C. Assess and manage underlying diseases**
Possible underlying chronic diseases should be investigated, as should any polypharmacy (the use of multiple medications). Polypharmacy and any resulting adverse effects can cause losses in multiple domains of intrinsic capacity and so always deserves investigation (**see box, Polypharmacy**, page 18).

The diagnosis of underlying disease, such as Alzheimer's disease, depression, osteoarthritis, osteoporosis, cataracts, diabetes and hypertension, is critical to a person-centred assessment. Such diagnoses may require complex diagnostic tests that are not always available in the primary health-care clinic. Depending on the setting, referral to a secondary or tertiary level of specialized geriatric care may be needed.

**2D. Assess social and physical environments and need for social care and support**
An assessment of the social and physical environments and an identification of any needs for social and support services are both required for people with losses in intrinsic capacity. This is an essential part of the person-centred assessment of older people in primary care. Social care needs can be identified by asking an older person whether they can perform various daily tasks without the help of others. The pathway in **Chapter 10** presents a set of questions for assessing and determining social care needs generally. In addition, each care pathway in **Chapters 4 to 9** notes possible social care needs specific to the priority conditions.

3

Support for self-management involves providing older people with the information, skills and tools that they need to manage their health conditions, prevent complications, maximize their intrinsic capacity and maintain their quality of life.

This does not imply that older people will be expected to "go it alone" or that unreasonable or excessive demands will be placed on them. Instead, it recognizes their autonomy and abilities to direct their own care, in consultation and partnership with health-care workers, their families and other caregivers.

The WHO **mobile health for ageing (mAgeing)** initiative can complement health-care professionals' routine care by supporting self-care and self-management. By delivering health information, advice and reminders through mobile phones, it encourages healthy behaviours and helps older people to improve and maintain their intrinsic capacity.

For information about how to set up an mAgeing programme and suggested text messages, see *https://www.who.int/ageing/health-systems/mAgeing.*

# STEP 3

## DEFINE THE GOAL OF CARE AND DEVELOP A PERSONALIZED CARE PLAN

**3A. Define with the older person the goal of care**

The unifying goal of optimizing intrinsic capacity and functional ability helps to ensure the integration of care and also provides the opportunity to monitor the older person's progress and the impact of interventions. It is essential that the older person and caregiver are involved in decision-making and goal-setting from the outset – and that goals are set and prioritized according to the person's priorities, needs and preferences.

**3B. Design a care plan**

The person-centred assessment informs the development of a personalized care plan. This personalized care plan applies an integrated approach to implement interventions that address losses in various domains of intrinsic capacity: all interventions should be considered and applied together.

# 3

## Generic care pathway

## Person-centered assessment and pathways in primary care

This integrated approach is important because most of the priority conditions associated with losses in intrinsic capacity share the same underlying physiological and behavioural determinants. As a result, interventions have benefits across domains. For example, intensive strength training is the key intervention to prevent loss of mobility. At the same time, strength training indirectly protects the brain against depression and cognitive decline and helps to prevent falls. Nutrition enhances the effects of exercise and at the same time increases muscle mass and strength. Through an integrated, unified approach, it may be possible to change the set of factors that increase the risk of care-dependency.

The personalized care plan will have a number of components, which may include:

- a package of multi-component interventions to manage losses in intrinsic capacity. Most care plans will include interventions to improve nutrition and encourage physical exercise;
- the management and treatment of underlying diseases, multimorbidities and geriatric syndromes. WHO has developed clinical guidelines to address most of the relevant chronic diseases that may contribute to declines in intrinsic capacity *(2)*. Every health-care provider should have access to these guidelines;
- support for self-care and self-management;
- the management of any advanced chronic conditions (palliative care, rehabilitation) or to ensure that older people can continue to live lives of meaning and dignity;
- social care and support, including environmental adaptations, to compensate for any functional losses; and
- a plan to meet social care needs with the help of family members, friends and community services.

Health and social care workers can support the implementation of the care plan in the community or the primary care setting. Self-management, supported by advice, education and encouragement from a health-care provider in the community, can modify some of the factors responsible for declines in intrinsic capacity. A partnership involving the older person, primary health-care workers, family and community will sustain people's well-being as they age.

# 3

## Generic care pathway

## Person-centered assessment and pathways in primary care

# STEP 4

### ENSURE A REFERRAL PATHWAY AND MONITORING OF THE CARE PLAN WITH LINKS TO SPECIALIZED GERIATRIC CARE

Regular and sustained follow-up, with integration among different levels and types of care service, is essential for implementing the interventions recommended in this guidance. Such an approach promotes early detection of complications or changes in functional status, thus avoiding unnecessary emergencies and saving costs by acting early.

Regular follow-up also provides the opportunity to monitor progress towards the care plan as well as a means for arranging additional support when needed. Follow-up and support can be especially important after major changes in health status, the treatment plan or in the person's social role or situation (a change in residence, for example, or the death of a partner).

Strong referral pathways are important to ensure rapid access to acute care in the case of unforeseen events such as falls, and to palliative and end-of-life care or after discharge from hospital.

A link to specialized geriatric care is also critical. Health systems need to ensure that people have timely access to specialty and acute care when needed. There is good evidence that specialist acute-care geriatric wards deliver higher-quality care with shorter lengths of stay and lower costs than general hospital care.

#### THE ROLE OF SPECIALIZED GERIATRIC CARE

Geriatricians focus their expertise on older adults with long-term complex conditions such as geriatric syndromes (incontinence, falls, delirium, etc.), polypharmacy and diseases such as dementia and providing care for those who have limitations in activities of daily living. Multimorbidity rises with age and results in complex clinical pictures, when primary care physicians should refer to geriatricians.

In the ICOPE approach, geriatricians are part of a multidisciplinary team responsible for the care of older adults, and they assist supervising primary care teams, and intervene when specialized care is needed.

# 3

## Generic care pathway

## Person-centered assessment and pathways in primary care

## STEP 5

### ENGAGE COMMUNITIES AND SUPPORT CAREGIVERS

Caregiving can be demanding, and caregivers of people with loss of capacity often feel isolated and are at high risk of psychological distress and depression. A personalized care plan should include evidence-based interventions to support caregivers. Caregivers also need basic information about the older person's health conditions, and training to develop a range of practical skills, such as how to transfer a person from a chair to a bed safely or how to help with bathing.

The older person and caregiver should receive information about the community-based resources available to them. Opportunities to involve communities and neighbourhoods more directly in supporting care must be explored, particularly by encouraging volunteering and by enabling older community members to contribute. Such activities can often take place in the associations and groups that draw older people together.

**Chapter 11** contains a care pathway for assessing caregiver burden and addressing the needs of unpaid caregivers for care and support themselves.

The ICOPE approach is based at the community or primary care level, where it can be accessible to the greatest number of people. At the same time, the approach calls for strong links with specialized and tertiary levels of care for those who need it such as with nutritionists and pharmacists.

### ICOPE HANDBOOK APP

Mobile applications will be available to guide health and social care workers on all the steps to undertake, from screening to assessing, to designing a personalized care plan. The app will also produce a printable summary of the results of the assessment and interventions to be included in the care plan in PDF format.

# 3

## Generic care pathway

## Person-centered assessment and pathways in primary care

### POLYPHARMACY

Polypharmacy is commonly described as the use of five or more medicines at the same time and is often associated with adverse drug reactions. This use of multiple drugs increases the risk of negative health consequences, and it can result in unnecessary losses in intrinsic capacity and is a cause of acute hospital admissions. Older people who visit multiple health-care workers or who have been hospitalized recently are at greater risk of polypharmacy. An older person with multimorbidities is likely to be more affected by the age-related physiological changes that can alter pharmacokinetics and pharmacodynamics.

Because polypharmacy can contribute to losses across multiple domains of intrinsic capacity, person-centred assessments should include a review of the medications that the older person is taking.

Polypharmacy can be reduced by eliminating unnecessary, ineffective medications as well as medications with a duplicative effect.

**How to prescribe appropriately and reduce medication errors:**

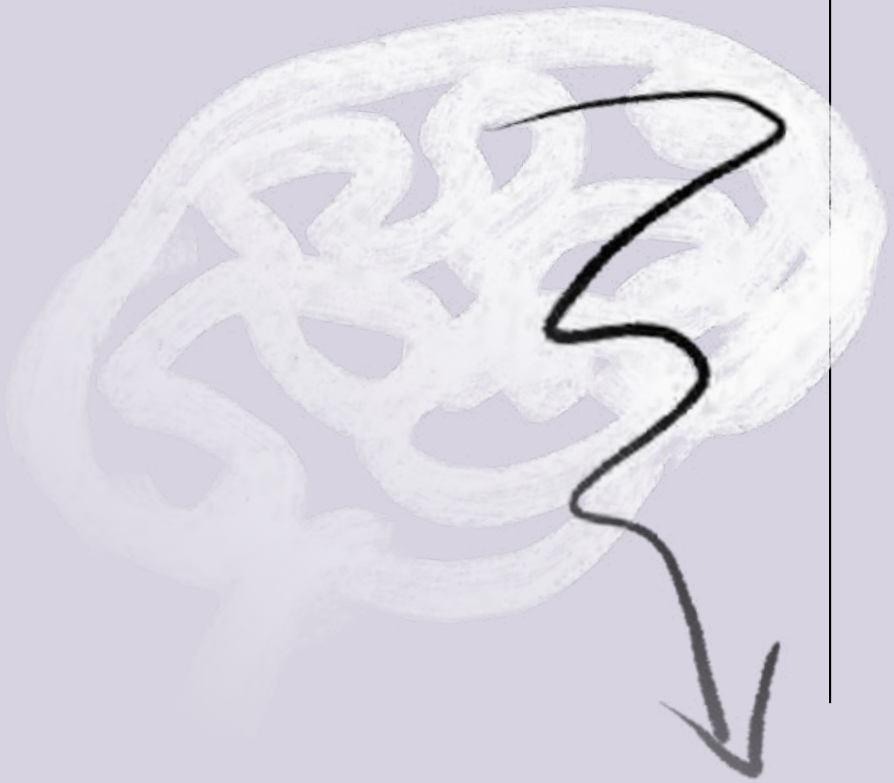
- obtain a complete medication history;
- consider whether the medications may affect capacity;
- avoid prescribing before a diagnosis is made except in severe acute pain;
- review medications regularly and before prescribing a new medication;
- know the actions, adverse effects, drug interactions, monitoring requirements and toxicity of prescribed medications;
- try to use one medication to treat two or more conditions;
- create a pill card for the patient; and
- educate the patient and caregiver about each medication.

*If in doubt about whether a medication can be safely stopped, refer to an appropriate specialist.*

# 4

## Cognitive capacity

# Care pathways to manage cognitive decline



Cognitive decline presents as increasing forgetfulness, loss of attention and reduced ability to solve problems. While the exact cause is not known, cognitive decline can be related to the ageing of the brain, to diseases (for example, cardiovascular diseases, such as hypertension and stroke, or Alzheimer's disease) or even environmental factors such as a lack of physical exercise, social isolation and a low level of education.

Cognitive decline becomes of greatest concern when it starts to interfere with a person's ability to function effectively in their environment – that is, when a person develops dementia.

This pathway is intended to apply to older people with some degree of cognitive decline but who do not have dementia. Health professionals must also be able to assess the need for social care and support (see **Chapter 10**).

### KEY POINTS

- Declines in cognitive capacity can be minimized and sometimes reversed by a general approach to a healthier lifestyle, cognitive stimulation and social engagement.
- Treatment of conditions such as diabetes and hypertension may prevent declines in cognitive capacity.
- Declines in other domains of intrinsic capacity, such as in hearing and locomotor capacity, can impair cognition and should also be assessed and addressed.
- For a person with dementia, specialist care is needed to plan and carry out complex interventions.

# 4

## Cognitive capacity

# Care pathways to manage cognitive decline

### Simple memory and orientation test

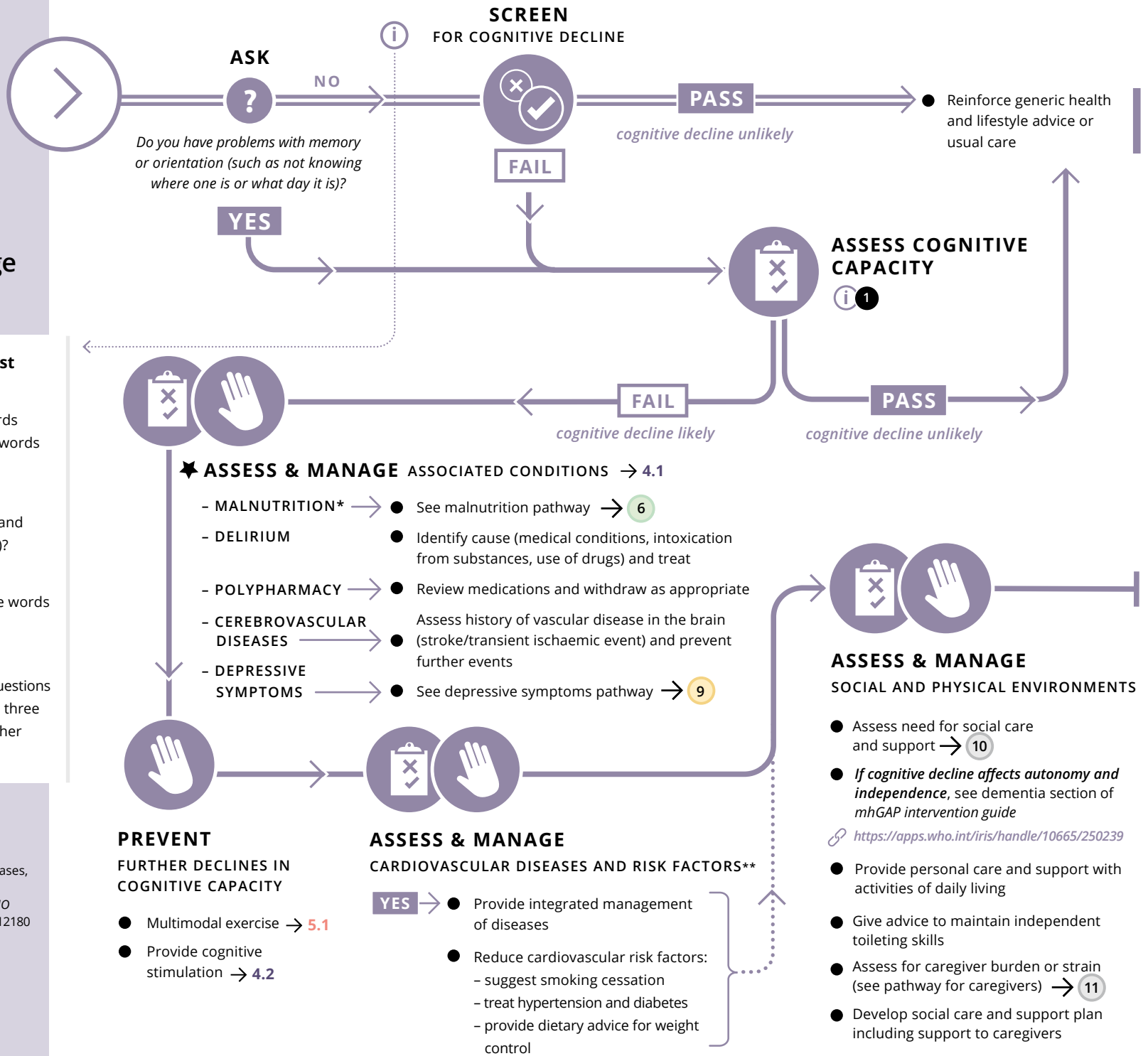
1. **Remembering three words:**
   Ask the person to remember three words that you will say. Use simple, concrete words such as *"flower", "door", "rice"*
2. **Orientation in time and space:**
   Then, ask, *"What is the full date today?"* and *"Where are you now?"* (home, clinic, etc.)?
3. **Recalling three words:**
   Now ask the person to repeat the three words that you mentioned

**Pass or fail?**

If a person cannot answer one of the two questions about orientation **OR** cannot remember all three words, **cognitive decline is likely** and further assessment is called for

* Vitamin deficiency, electrolyte abnormality, severe dehydration

** Cardiovascular risk factors: hypertension, high cholesterol, diabetes, smoking, obesity, heart diseases, previous stroke or transient ischaemic attack.
*Risk reduction of cognitive decline and dementia: WHO Guidelines* – https://apps.who.int/iris/handle/10665/312180




World Health Organization

1

## ASSESS COGNITION

More in-depth assessment of cognitive capacity uses a locally validated tool if possible. Below right is a list of options for assessing cognition in older adults in primary care settings.

**Lack of schooling.** Almost all standard cognitive assessments used for the screening or diagnosis of cognitive impairment assume a minimal amount of school education. If a person has less than five or six years of schooling or has no schooling, cognitive assessment can be limited. Instead, it must rely on interview and clinical judgement. For these individuals, enrolling in an adult literacy programme (if available) is highly recommended, as it promotes cognitive health.

If a standard assessment tool is not available or not appropriate, the health worker can ask the person, and also someone who knows the person well, about problems with memory, orientation, speech and language and about any difficulties with performing key roles and daily activities.

Failing in the cognitive assessment or reported problems with memory or orientation suggests cognitive impairment. Such a person should also be assessed for difficulty with activities of daily living (ADLs) or instrumental activities of daily living (IADLs). This information is important for planning social care and support as part of the personalized care plan.

**If cognitive declines affect an older person's ability to function effectively within their environment, a specialized assessment may be needed to diagnose dementia or Alzheimer's disease** (the most common cause of dementia). Protocols for assessing and managing dementia can be found in the WHO *mhGAP Intervention Guide*, at *https://apps.who.int/iris/handle/10665/250239*

### WHEN SPECIALIZED CARE IS NEEDED

- Diagnosis and treatment of dementia.
- Management of multiple associated conditions such as delirium, cerebrovascular and cardiovascular diseases.

### EXAMPLES OF COGNITION ASSESSMENT TOOLS FOR USE IN PRIMARY HEALTH-CARE SETTINGS

| TOOL/TEST | ADVANTAGE | DISADVANTAGE | TIME |
|---|---|---|---|
| **Mini-Cog** *http://mini-cog.com/wp-content/uploads/2015/12/Universal-Mini-Cog-Form-011916.pdf* | Brief; minimal language, educational and racial bias | Use of different word lists may affect scoring | 2–4 min |
| **Montreal cognitive assessment (MoCA)** *https://www.mocatest.org/* | Can identify mild cognitive impairment; available in multiple languages | Educational and cultural bias; limited published data | 10–15 min |
| **Mini mental state examination (MMSE)** *https://www.parinc.com/products/pkey/237* | Widely used and studied | Subject to age and cultural bias, ceiling effects | 7–10 min |
| **General practitioner assessment of cognition (GPCOG)** *http://gpcog.com.au/index/downloads* | Minimal cultural and educational bias; available in multiple languages | May be challenging to get an informant's report | 5–6 min |

**What is dementia?**
Dementia is a chronic and progressive syndrome due to changes in the brain. Dementia results in decline in cognitive functioning, and interferes with activities of daily living such as washing, dressing, eating, personal hygiene and toilet activities.

More information: *WHO mhGAP intervention guide (https://apps.who.int/iris/handle/10665/250239)*

# 4

## Cognitive capacity

## Care pathways to manage cognitive decline

# ASSESS & MANAGE
## ASSOCIATED DISEASES

**An important step, before any diagnostic process for cognitive decline, is to assess the presence of any associated conditions and treat these first.**

*Uncovering a reversible medical cause of cognitive decline involves a full diagnostic work-up. It may be necessary to explore several different potential explanations of symptoms to arrive at an accurate approach for the care plan.*

### 4.1 CONDITIONS THAT CAUSE COGNITIVE SYMPTOMS

Common reversible conditions that can cause cognitive decline include dehydration, malnutrition, infections and problems with medications. With proper treatment of these conditions, a person's cognitive symptoms should go away.

**Severe dehydration.** Severe dehydration and other nutritional problems can cause delirium (which resembles dementia) and, in severe cases, death.

**Delirium.** Delirium is a sudden and drastic loss of the ability to focus attention. People also become extremely confused about where they are and what the time is. Delirium develops over a short period of time and tends to come and go during the course of a day. It may result from acute organic causes such as infection, medications, metabolic abnormalities (such as hypoglycaemia or hyponatraemia), substance intoxication or substance withdrawal.

**Polypharmacy.** Two or more drugs may interact and cause adverse side-effects (see box in Chapter 3, p. 18). Sedatives and hypnotics are the medications most often responsible for cognitive disorders among older people.

**Major surgery and general anaesthesia.** Major surgery and general anaesthesia are a recognized risk for cognitive decline. Practitioners should ask if the person's cognitive decline followed major surgery. If so, that person will be at higher risk for further cognitive decline following any further major surgery. This higher risk will need to be identified and discussed with the surgical team and anaesthetist before any future surgeries or anaesthesia.

**Cerebrovascular disease.** Vascular disease in the brain is closely associated with cognitive decline. If the patient has a history of stroke/mini-stroke/transient ischaemic event, then prevention of further events is the primary approach to stop further declines in cognition.

# MANAGE
## COGNITIVE DECLINE

- People with cognitive decline can benefit from **cognitive stimulation**.
- Other ICOPE interventions, such as **multimodal exercise** (see chapter 5, limited mobility), also contribute to brain health. → 5
- Losses in other domains of intrinsic capacity, particularly hearing, vision and mood, can affect cognition. To reach the best outcomes, these may need to be addressed. Individuals with cognitive declines differ in the pattern of declines across other domains.

## 4.2 COGNITIVE STIMULATION

Cognitive stimulation may slow declines in cognitive capacity *(7).* Cognitive stimulation aims to stimulate participants through cognitive activities and recollection, stimulation of multiple senses and contact with other people.

**Cognitive stimulation may be offered to an individual or in a group.** Groups may be better for some people; social contact in the group may help. Groups may also be suitable and efficient if those in the group share a common purpose, such as improving health literacy.

The standard group approach involves up to 14 themed sessions of about 45 minutes each, held twice a week. A facilitator leads these sessions. Typically, a session might start with some non-cognitive warm-up activity and then move to a variety of cognitive tasks, including reality orientation (for example, a board displaying such information as place, date and time). Sessions focus on different themes, including, for example, childhood, use of money, faces or scenes. These activities generally avoid factual recall but instead focus on questions such as, *"What do these [words or objects] have in common?"*

**Who can conduct cognitive stimulation?** In high-income countries, usually it is psychologists who conduct cognitive stimulation therapy. With adaptation, it could be conducted by suitably trained and supported non-specialists. However, designing and providing a personalized intervention for a person with significant declines may require more detailed assessment and planning – tasks that require specialized skills. Therefore, local protocols should include criteria for referral to mental health specialists for cognitive stimulation therapy.

**Family members and caregivers** can play an important role in cognitive stimulation. It is important to encourage family members and caregivers to regularly provide older people with such information as day, date, weather, time, names of people and so on. This information helps them to remain oriented in time and place. Also, providing materials such as newspapers, radio and TV programmes, family albums and household items can promote communication, orient an older person to current events, stimulate memories and enable the person to share and value their experiences.

# 4

## Cognitive capacity

## Care pathways to manage cognitive decline

# ASSESS & MANAGE

### SOCIAL AND PHYSICAL ENVIRONMENTS

If cognitive declines limit a person's autonomy and independence, that person is likely to have major social care needs. A health worker can help caregivers tailor a plan for activities of daily living that maximizes independent activity, enhances function, helps to adapt and develop skills, and minimizes the need for support.

**Family members and caregivers can:**

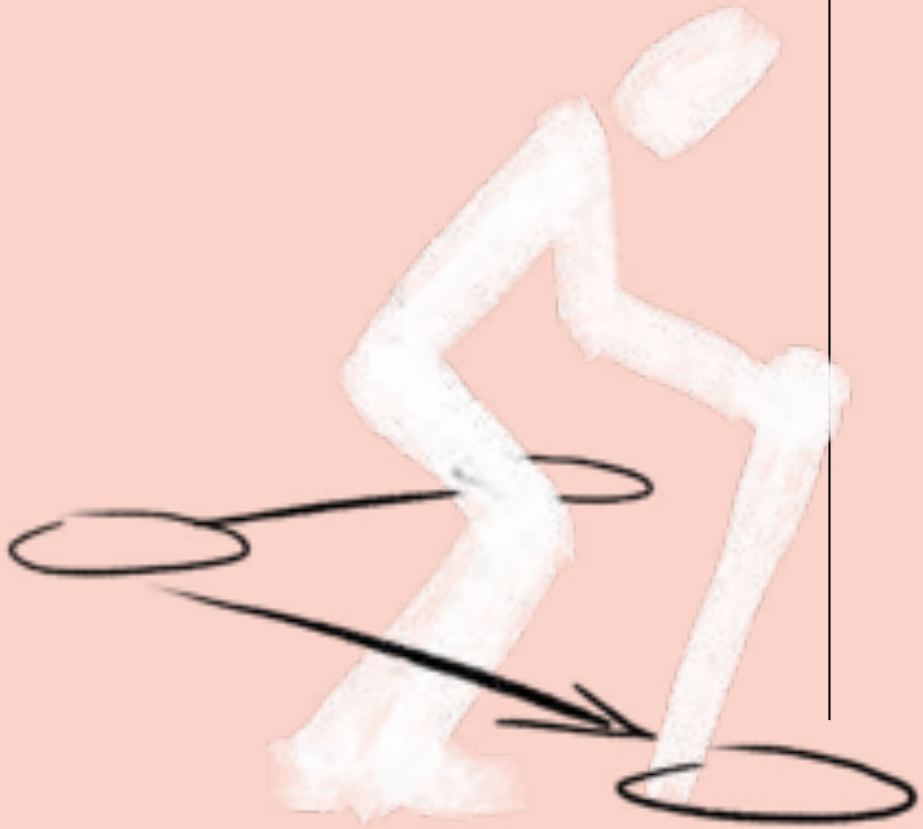
- provide orienting information, such as the date, current community events, identity of visitors, weather, news of family members;
- encourage and arrange contacts with friends and family members at home and in the community;
- make and keep the home safe to reduce the risk of falls and injury;
- post signs in the home – for example, for the toilet, bedroom, door to outside – to help the person find his or her way about; and
- arrange for and join in occupational activities (as appropriate to the person's capacities).

Caregivers for people with severe cognitive declines face heavy demands. The stress can put their health at risk. See Chapter 11 on addressing the needs of caregivers. → 11

# 5

## Locomotor capacity

## Care pathways to improve mobility



Mobility is a critical determining factor for healthy ageing. It is important for maintaining autonomy and preventing dependence on care. A person's bodily capacity to move from one place to another is termed locomotor capacity.

Many older people and their families accept losses of locomotor capacity and the associated pain as inevitable. They are not. Indeed, there are effective strategies to improve and maintain mobility in older age.

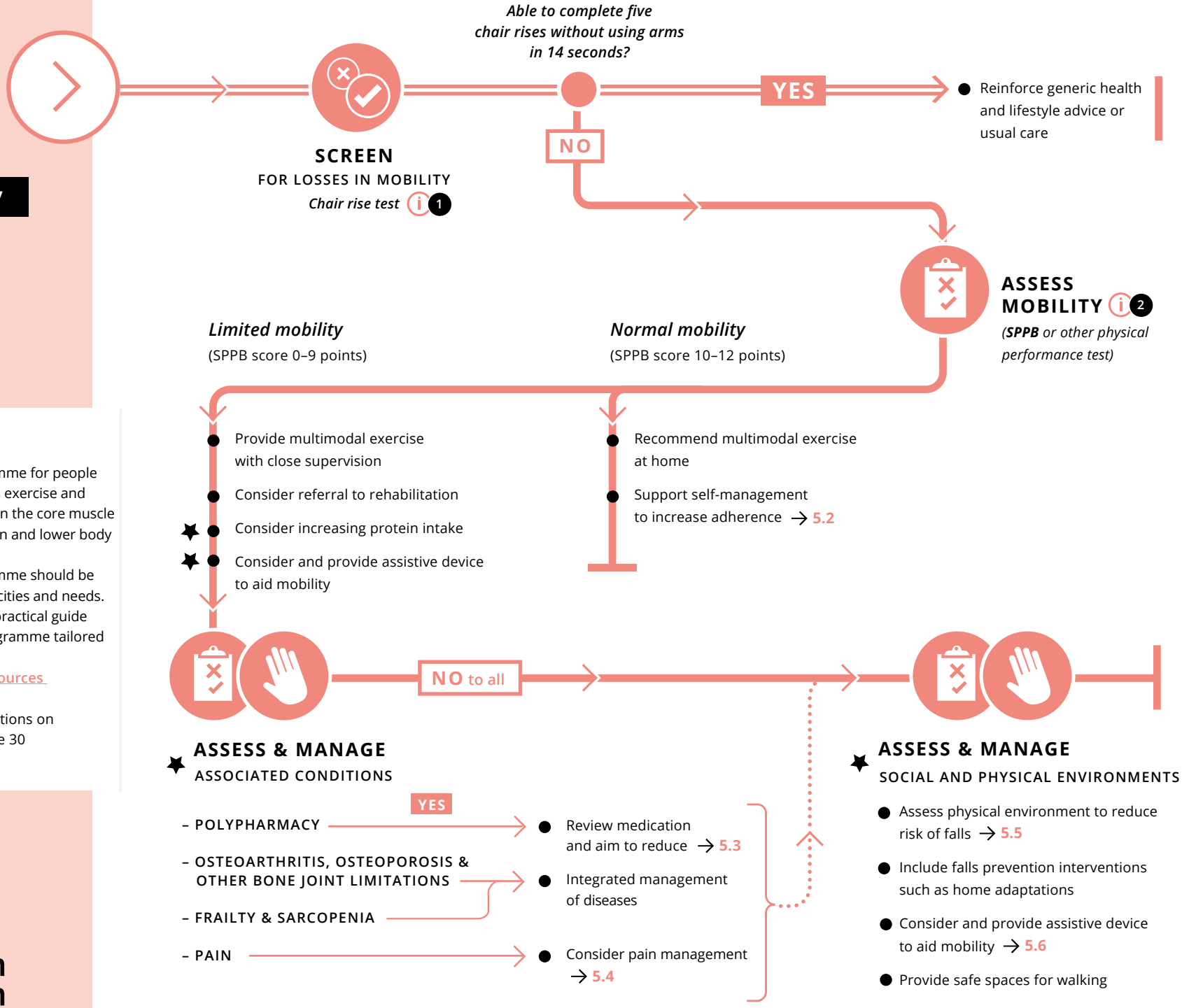
### KEY POINTS

- Limited mobility is common among older people but not inevitable.
- Community-level health-care workers can screen for limited mobility with simple tests.
- A programme of regular exercise, tailored to individual capacities and needs, is the most important approach to improve or maintain locomotor capacity.
- Adapting one's environment and using assistive devices are good ways to maintain mobility despite reduced locomotor capacity.

# 5

## Locomotor capacity

## Care pathways to improve mobility




**Multimodal exercise** → 5.1

A multimodal exercise programme for people with limited mobility combines exercise and cross-training with emphasis on the core muscle groups of back, thigh, abdomen and lower body

A multimodal exercise programme should be tailored to suit individual capacities and needs. The **Vivifrail project** offers a practical guide to developing an exercise programme tailored to capacities
http://www.vivifrail.com/resources

For WHO global recommendations on physical activity, see box, page 30

★ Specialized care needed

World Health Organization

## WHEN SPECIALIZED CARE IS NEEDED

Locomotor capacity should be assessed together with other aspects of intrinsic capacity, such as cognition, sensory, vitality and psychological capacities. If significant declines in physical or mental capacity or comorbidities make exercise prescription more complex, specialist knowledge may be needed to devise a suitable exercise programme. Referral to rehabilitation may be considered.

1

## CHAIR RISE TEST

A simple test can decide whether an older person needs further assessment for limited mobility.

**Instructions:** Ask the person, "Do you think it would be safe for you to try to stand up from a chair five times without using your arms?" (Demonstrate to the person.)

***If YES, ask them to:***
– sit in the middle of the chair
– cross and keep their arms over their chest
– rise to a full standing position and then sit down again
– repeat five times as quickly as possible without stopping.

Time the person taking the test – further assessment is needed if they **cannot stand up five times within 14 seconds.**

2

## SHORT PHYSICAL PERFORMANCE BATTERY (SPPB)

While a wide range of physical performance tests is available, the SPPB is recommended, as it has superior measurement properties and is useful across a range of abilities. The SPPB measures timed performance on three tasks, each scored out of four, to derive a score from zero (worst performance) to 12 (best performance).

First, describe each test and ask if the person feels able to do it. If not, score accordingly and move to the next step.

1. **Balance tests:** Stand for 10 seconds with feet in each of the following three positions. Use the sum of the scores from the three positions.

2. **Gait speed test:** Time to walk four metres.

   Time for four-metre walk:

| | |
|---|---|
| < 4.82 seconds | **4** points |
| 4.82 – 6.20 seconds | **3** points |
| 6.21 – 8.70 seconds | **2** points |
| > 8.70 seconds | **1** point |
| Unable to complete | **0** points |

3. **Chair rise test:** Time to rise from a chair five times

| | |
|---|---|
| < 11.19 seconds | **4** points |
| 11.2 – 13.69 seconds | **3** points |
| 13.7 – 16.69 seconds | **2** points |
| 16.7 – 59.9 seconds | **1** point |
| > 60 seconds or unable to complete | **0** points |

**Final SPPB score** = sum of scores from the three tests above.

**More detail on the SPPB test:**
*http://hdcs.fullerton.edu/csa/research/documents/sppbinstructions_scoresheet.pdf*

**A. Side-by-side stand**

| | |
|---|---|
| Held for 10 seconds | **1** point |
| Not held for 10 seconds | **0** points |
| Not attempted | **0** points |

***If not attempted,*** end balance tests.

**B. Semi-tandem stand**

| | |
|---|---|
| Held for 10 seconds | **1** point |
| Not held for 10 seconds | **0** points |
| Not attempted | **0** points |

***If not attempted,*** end balance tests.

**C. Tandem stand**

| | |
|---|---|
| Held for 10 seconds | **2** points |
| Held for 3 to 9.99 seconds | **1** point |
| Held for < 3 seconds | **0** points |
| Not attempted | **0** points |

# 5

## Locomotor capacity

## Care pathways to improve mobility

# ASSESS

## MOBILITY

**Mobility can be assessed more fully by scoring a person's performance on three simple tests.** Together, these tests are known as the Short Physical Performance Battery (SPPB).

The chair rise test is one of these tests. It should be repeated after the other two tests:

- ***the balance test*** – standing for 10 seconds in each of three feet positions
- ***the walking speed test*** – how long it takes to walk four metres.

The scores on each test are added together. Lower total scores mean limited mobility. The pathway outlines two different paths for management, depending on the total score.

More information on the tests and how to score them can be found on the previous page.

### WHEN SPECIALIZED CARE IS NEEDED (FURTHER INFORMATION)

**Specialized care may also be needed for a person who has:**

- persistent pain that affects mood or other areas of functioning
- significant impairments in joint functions
- broken a bone after minimal trauma
- safety risks (see box on opposite page)
- a need for help choosing an appropriate assistive device for mobility.

# MANAGE

## LIMITED MOBILITY

## 5.1 MULTIMODAL EXERCISE PROGRAMME

For those with limited mobility, a multimodal exercise programme should be tailored to suit individual capacity and needs.

**The Vivifrail project offers a practical guide to developing a tailored exercise programme.**

http://www.vivifrail.com/resources

**A multimodal exercise programme for people with limited mobility can include:**

- **strength/resistance training**, which requires muscles to work under load, using weights, resistance bands or body weight exercises such as squats, lunges and sit-to-stand exercises;
- **aerobic/cardiovascular training**, such as fast walking or cycling that increases heart rate until the person is slightly out of breath but can maintain a conversation;
- **balance training**, which challenges the balance system, including static and dynamic exercises; can progress to different surfaces and with eyes open and shut; examples are standing on one leg at a time and walking heel-to-toe in a straight line; and
- **flexibility training**, which improves the extensibility of soft tissues, such as muscle, and the range of joint movement; examples are stretching and other yoga and Pilates exercises.

**Nutrition.** Increased protein intake and other nutritional interventions can enhance the benefits of an exercise programme. See Chapter 6 on malnutrition. → 6

**Safety of exercise.** Before giving advice on exercise or planning an exercise programme, ask about health conditions that would affect the timing or intensity of the activity.

If the person answers yes to any of the following questions, a skilled health professional should develop a tailored exercise programme.

- *Have you had chest pain when at rest?*
- *Have you had a heart attack within the last six months?*
- *Have you fainted or lost consciousness?*
- *Have you fallen in the past 12 months?*
- *Have you broken a bone in the last month?*
- *Do you get out of breath doing ordinary daily activities at home, such as getting dressed?*
- *Do you have a joint or muscle disease that limits exercise?*
- *Has a health-care provider told you to limit exercise?*

# 5

## Locomotor capacity

## Care pathways to improve mobility

**Managing limitations.** Where pain limits mobility, pacing physical activity in manageable chunks of time and slowly increasing physical tasks helps to build the body's resilience and manage pain. For people with severely reduced mobility, exercise training in bed or seated on a chair can be a starting point. For people with limitations in cognition, such as dementia, a simple and less structured exercise programme may be more suitable.

### 5.2 SUPPORT FOR SELF-MANAGEMENT

Support for self-management increases adherence to and the benefits of a multimodal exercise programme. People whose SPPB scores are in the range of 10–12 can exercise at home and in the community. People with more severe mobility limitations may need supervision and guidance during exercise.

The WHO mobile health for ageing (mAgeing) handbook explains how a mobile phone app can complement health-care professionals' routine care by supporting self-care and self-management.

More information:
*http://www.who.int/ageing/health-systems/mAgeing*

### WHO'S GLOBAL RECOMMENDATIONS ON PHYSICAL ACTIVITY

All older adults can benefit from advice on the physical activity recommended for their age, taking into consideration their health conditions. This box summarizes WHO's global recommendations on physical activity for people aged 65 years and older.

- Throughout each week, get at least 150 minutes of moderate-intensity aerobic physical activity or at least 75 minutes of intensive aerobic activity, or an equivalent combination.
- Exercise at least 10 minutes at a time.
- For additional benefit, do 300 minutes of moderate-intensity aerobic exercise per week or 150 minutes of intensive aerobic activity per week, or an equivalent combination.
- Do muscle-strengthening activities two days a week or more.
- If mobility is poor, perform physical activity that enhances balance on three days a week or more.
- If you cannot exercise as much as recommended, be as physically active as you can.

More information:
*http://www.who.int/dietphysicalactivity/pa/en/index.html*

# ASSESS & MANAGE
## ASSOCIATED CONDITIONS



## 5.3 POLYPHARMACY

Some drugs can impair mobility or interfere with balance yet are sometimes unnecessary or ineffective for a specific person *(8).* These include, but are not limited to, the following:

- anticonvulsants
- benzodiazepines
- nonbenzodiazepine hypnotics
- tricyclic antidepressants
- selective serotonin reuptake inhibitor (SSRI) antidepressants
- antipsychotics
- opioids.

Eliminating unnecessary, ineffective medications as well as medications with a duplicative effect reduces polypharmacy. ***If in doubt about whether a medication can be safely stopped, refer to an appropriate specialist.***

## 5.4 PAIN

**Assess pain.** Severe pain associated with movement can limit or even prevent exercise. It is helpful to rate the severity of pain related to mobility, both to help with designing an exercise programme and for managing the pain. You can use the brief pain inventory: *https://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0015/212910/Brief_Pain_Inventory_Final.pdf*

**Manage pain** *(9).* Musculoskeletal conditions that impair mobility often involve persistent pain. A specific biological cause of persistent pain can rarely be found, however. A best-practice approach to pain management therefore addresses multiple factors that may be associated with pain – physical factors (such as muscle strength, range of movement and endurance), psychological well-being, nutrition and sleep. Where pain is a significant barrier to movement and activity, a health professional with specialized knowledge of pain management should develop the pain management plan.

**Interventions for pain include:**

- self-management → 5.2
- exercises and other physical activity
- medications ranging from paracetamol and nonsteroidal anti-inflammatory drugs to gabapentin and opioids
- manual therapy such as massage, joint manipulation and joint mobilization
- psychological therapy and cognitive behavioural therapy (see Chapter 9 on depressive symptoms) → 9
- acupuncture
- spinal injections/epidural injections
- radiofrequency denervation.

*Some of these interventions can be made available in the community. Others would likely require referral to a central facility.*

# 5

## Locomotor capacity

## Care pathways to improve mobility

# ASSESS & MANAGE

### SOCIAL AND PHYSICAL ENVIRONMENTS

Someone with limited mobility may need help to cope with day-to-day activities. The first step is to assess social care needs (see Chapter 10). Specific social care needs for older people with losses in mobility may include those revealed by an assessment of their physical environment or the need for assistive devices. An exercise programme can help to prevent falls.

With specific training, a community- or facility-based primary care provider can assess a person's home. If a visit is not possible, a primary care health worker can give general instructions instead, to the person or a caregiver on how to create a safer home environment.

A full assessment and management of a person's risk of falls requires specialized knowledge.

*Declines in any intrinsic capacity can increase the risk of falls. The physical environment and the way the task or activity was being performed can also be factors.*

**In addition to assessing the physical environment, a full assessment of the risk of falls includes:**

- taking a history of falls, including details of the activities being carried out;
- assessment of gait, balance, mobility, and muscle and joint function and flexibility;
- assessment of fear of falling, vision, cognition, cardiovascular and neurological status, and urinary urgency or nocturia (waking to urinate at night); and
- review of medications for polypharmacy (see Chapter 3 on assessing and developing a plan).

Some people will need further assessment and management for problems such as syncope (blackouts), epilepsy and neurogenerative disorders such as Parkinson's disease.

## 5.5 ASSESS THE PHYSICAL ENVIRONMENT TO REDUCE RISK OF FALLS

An assessment of the physical environment involves looking around the home to find possible hazards and offer suggestions. Examples might include to reduce clutter, remove loose rugs, smooth out bumps in floors and steps, move furniture to create a wide, unblocked path, improve lighting and improve access to the toilet, especially at night (by adding handles on the wall for example). A ramp to the main doorway will make it easier for people who use wheelchairs and others with a difficulty climbing steps. A person's specific mobility limitations will guide what environmental adaptations are most important.

## 5.6 CONSIDER AND PROVIDE ASSISTIVE DEVICES

People with limitations in mobility may need assistive devices to move around. Assistive devices are those whose primary purpose is to maintain or improve an individual's functional ability and independence to facilitate participation and to enhance overall well-being *(10).* These include canes, crutches, walkers, wheelchairs and prosthetic or orthotic devices. Choices may be limited by availability and cost, but a health professional with knowledge of physical therapy, if available, can give the best advice on the choice of an appropriate device and instructions on how to use it safely.

# 6

## Vitality

# Care pathways to manage malnutrition

*WHO uses the term vitality to describe the physiological factors that contribute to an individual's intrinsic capacity. These may include energy balance and metabolism.*
*This handbook focuses on one key reason for decreased vitality in older age – malnutrition.*

### KEY POINTS

- Primary care health workers can easily make an initial assessment of nutritional status. This should be a part of any assessment of an older person's health. A full assessment of nutritional status requires specialized knowledge and sometimes blood tests.
- Both inadequate nutrition and less physical activity lead to loss of muscle mass and strength.
- A balanced diet in adequate amounts usually provides the necessary vitamins and minerals for older people, but deficiencies of vitamins D and B12 are common.
- Malnutrition often leads to weight loss – but not always. Fat mass can replace muscle mass, leaving weight unchanged.
- Another aspect of malnutrition is obesity, which has not been addressed in this guidance.

# 6

## Vitality

## Care pathways to manage malnutrition

**SCREEN**
FOR MALNUTRITION
IN COMMUNITY

**ASK**

*Have you unintentionally lost 3 kgs over the last three months?* — NO

*Have you experienced loss of appetite?* — NO

- Reinforce generic health and lifestyle advice or usual care (i) 1

**YES**
*(to either question)*

**ASSESS NUTRITIONAL STATUS** (i) 2

Example: Mini nutritional assessment (MNA) *(8)*

### *Malnourished*
(MNA score: < 17 points)

- Nutritional intervention necessary
- Give **oral supplemental nutrition** with increased protein intake (400–600 kcal/day) → 6.2
- Offer dietary advice (i) 1
- Monitor weight closely

### *At risk of malnutrition*
(MNA score: 17–23.5 points)

- Offer dietary advice (i) 1
- Consider **oral supplemental nutrition** if unable to improve food intake → 6.2
- Monitor weight closely
- Consider multimodal exercise

### *Normal nutritional status*
(MNA score: 24–30 points)

- Reinforce generic health and lifestyle advice or usual care

**REASSESS...**
- after acute event or illness
- once a year for older people living in the community
- every three months for older people with social care needs

**Oral supplemental nutrition**

Oral supplemental nutrition (OSN) provides additional high-quality protein, calories and adequate amounts of vitamins and minerals tailored to an individual's needs, tastes and physical limitations

**ASSESS & MANAGE**
ASSOCIATED CONDITIONS → 6.3
- FRAILTY
- SARCOPENIA

- Integrated management of diseases
- Consider rehabilitation to improve muscle function

**ASSESS & MANAGE**
SOCIAL AND PHYSICAL ENVIRONMENT

- Overcome barriers to people's nutritional health
- Encourage family and social dining
- Arrange assistance with preparation and provision of food

Specialized care needed

World Health Organization

1

## ADVICE TO GIVE ON NUTRITION

- Primary care health workers can give older people advice and can encourage a healthy diet. All older people can benefit from this advice, including those at risk of or affected by undernutrition, whether or not they need specialized care. Following a good diet is easier for people who record what they eat on a chart every day – both at meals and between meals.
- Help people to identify specific foods that are available locally and that provide adequate energy (carbohydrates), protein and micronutrients such as vitamins and minerals. Advise on the adequate amounts of these foods.
- Because protein absorption decreases with age, advise older people to eat plenty of it. Protein intake of 1.0–1.2 g per kg of body weight is recommended for healthy older adults. A person recovering from weight loss or an acute illness or injury may need up to 1.5 g per kg of body weight. Renal function needs to be monitored as high-protein intake may lead to increased intraglomerular pressure and glomerular hyperfiltration.
- Advise physical activity, which enables protein to be incorporated into muscle and builds appetite.
- Encourage exposure to sunlight to make the skin produce vitamin D. The vitamin D in food is not enough for older people to maintain optimal levels. A blood test is necessary to measure whether a person's vitamin D level is adequate.
- Often, older people do not eat enough. To help an older person to eat more, suggest family-style meals and social dining, particularly for older people living alone or who are socially isolated.

**REMEMBER!**

*The health-care worker needs to inform family members and other caregivers as well as the older person.*

## WHEN SPECIALIZED KNOWLEDGE IS NEEDED

Community- and facility-based primary health-care workers can offer advice and support to help all older people maintain a healthy diet. People with malnutrition or at high risk of it need a provider with specialized knowledge to look for causes and risk factors and to prescribe a personalized nutrition plan.

If indicated, make or obtain a further assessment of possible conditions that could underlie or lead to malnutrition – even if current nutritional status seems adequate. Signs of these possible conditions include wasting, rapid weight loss, oral pain, pain or difficulty swallowing, chronic vomiting or diarrhoea, and abdominal pain.

2

## ASSESS NUTRITIONAL STATUS

Good tools are available to help assess nutritional status *(11)*. For example:

- Mini nutritional assessment (MNA) *(8)*
- DETERMINE nutrition risk assessment *(https://www.dads.state.tx.us/providers/AAA/Forms/standardized/NRA.pdf)*
- Malnutrition universal screening tool *(https://www.bapen.org.uk/pdfs/must/must_full.pdf)*
- Seniors in the community risk evaluation for eating and nutrition questionnaire *(https://www.flintbox.com/public/project/2750/)*
- Short nutritional assessment questionnaire 65+ (SNAQ65+) *(http://www.fightmalnutrition.eu/toolkits/summary-screening-tools).*

The care pathway on the facing page uses the **mini nutritional assessment (MNA).**

# 6

**Vitality**

## Care pathways to manage malnutrition



# ASSESS
## NUTRITIONAL STATUS

Most nutrition assessment tools ask about:

- food and fluid intake
- recent weight loss (same as the case-finding question)
- mobility
- recent psychological stress or acute disease
- psychological problems
- living situation.

Also, they record:

- weight
- height
- body mass index (BMI – weight in kg/height in $m^2$)
- arm and calf circumferences.

### BODY MASS COMPOSITION AND AGEING

Typically after around 70 years of age, muscle mass may decrease, with important and potentially harmful effects on vitality. Both inadequate nutrition and inadequate physical exercise lead to loss of muscle mass and strength.

At the same time, fat mass may increase. Body weight may decrease, or it may remain the same, masking these possible harmful changes. **An undernourished person might, therefore, have lost crucial lean body tissue and still have a BMI in the accepted or even overweight range.**

A trained non-specialist can reliably assess muscle function, and thus protein malnutrition, with a tool such as a hand dynamometer to measure grip strength. This tool measures how hard a person can squeeze the tool with one hand. Low hand grip strength indicates the need for exercise and a diet that includes more protein.

# MANAGE

## MALNUTRITION IN OLDER AGE

Sensory impairments (a decreased sense of taste and smell), poor oral health such as chewing problems and swallowing difficulties, isolation, loneliness, low income and complex long-term chronic conditions all increase the risk of malnutrition in older age.

### 6.1 FOR OLDER PEOPLE AT RISK OF MALNUTRITION

An older person at risk of malnutrition (for example, an MNA score of 17–23.5) can benefit from advice on nutrition (see box on page 35). A person at risk of developing malnutrition should also preferably be offered a nutritional intervention, to prevent the development of malnutrition.

### 6.2 FOR OLDER PEOPLE WITH MALNUTRITION

For a person identified with malnutrition (for example, an MNA score below 17), a nutritional intervention should start at once. The primary care health worker can immediately give standard dietary advice (see box on page 35). As soon as possible, a health worker with specialized knowledge should also offer dietary advice and, if needed, prescribe oral supplemental nutrition (see below).

The intervention should be part of a comprehensive care plan addressing the underlying factors contributing to poor nutrition, along with other interventions that address other domains of intrinsic capacity, such as limited mobility. In particular, adequate energy and protein intake will make multimodal physical exercise programmes more effective (see Chapter 5 on limited mobility). → 5

**Oral supplemental nutrition**

Oral supplemental nutrition (OSN) provides additional high-quality protein, calories and adequate amounts of vitamins and minerals. Specialized knowledge is needed to develop a plan for OSN that is tailored to an individual's needs, tastes and physical limitations. The assessment allows for choice of the best method of supplementation – whether through nutrient-rich foods, vitamin or mineral supplement pills or

# 6

## Vitality

## Care pathways to manage malnutrition

through specialized commercial products or non-commercial nutritional formulations. The health worker in the community can support and monitor the person taking OSN (see box).

***Oral supplemental nutrition should be prescribed only when a person cannot consume sufficient calorie- and nutrient-dense regular foods or when OSN is a temporary strategy in addition to regular food strategies to increase caloric intake.***

**Blood test**

A blood test informs the personalized nutritional plan. A blood test can identify specific vitamin and mineral deficiencies. Specific oral nutrient supplements or injections can treat these deficiencies. For example, tablets or injections are needed to treat deficiencies in vitamins D and B12, which are common.

### KEY POINTS ABOUT OSN

- Food comes first. Unless the need for OSN is urgent, improvements in diet, if possible, and more frequent meals should be tried first.
- OSN adds to food. It should not replace food. A person taking OSN should understand the need to keep eating as well as possible.
- People need instruction in how to mix OSN, how much to take at a time and when to take it.
- OSN should be taken between meals, not at meal times.
- People often need continuing support and encouragement (from family members, caregivers and health workers) to keep taking OSN and also to keep eating as well as possible.
- After a time, a person may be tired of the taste and texture of one kind of OSN. A variety of flavours and a change from time to time may help.
- Weight should be monitored and recorded regularly.
- Ideally, the goal should be to stop OSN once the risk of malnutrition has passed and the diet provides adequate nutrition.

# ASSESS & MANAGE
## ASSOCIATED CONDITIONS

### 6.3 SARCOPENIA AND FRAILTY

Sarcopenia and frailty are conditions that can be associated with poor nutrition. Lifestyle interventions, including better nutrition and physical exercise, can help with both.

**Sarcopenia.** This term describes a general, increasing loss of muscle mass, strength and function. It can result from disease, poor nutrition or a lack of physical activity (lying in bed for long periods of time, for example), or it may not have any obvious cause and may be associated with the ageing process.

**Frailty.** Frailty can involve weight loss, muscle weakness, low levels of physical activity, exhaustion and slowness (walking slowly, for example). Frailty can result from physical or psychological stress, such as trauma, disease or the loss of a loved one. A person with frailty can lose functional abilities and become care-dependent.



# ASSESS & MANAGE
## SOCIAL AND PHYSICAL ENVIRONMENTS

Caregivers and communities can help to overcome barriers to older people's nutritional health. For example, community organizations might organize social dining events for older people.

For their part, community health workers may be able to facilitate access to groceries, access to help with managing finances or accessing sources of income support, may facilitate assistance to prepare food, or receive prepared foods such as via a community-based catering service.

# 7

## Visual capacity

# Care pathways to manage visual impairment

Vision is a critical component of intrinsic capacity, enabling people to be mobile and to interact safely with their peers and the environment. Some causes of visual impairment become more common with ageing: near-sightedness and far-sightedness, cataracts, glaucoma and macular degeneration.

Visual impairment can cause difficulties in maintaining family and other social relationships, in accessing information, moving safely (especially in the context of balance and the risk of falls) and in performing manual tasks. Such difficulties may lead to anxiety and depression.

An assessment of vision is a critical component of a person-centred assessment.

### KEY POINTS

- With a simple eye chart, primary and community health workers can test for significant vision loss.
- Many people with vision loss can have their conditions treated. It is important to ask about, assess or verify the presence of established eye disease.
- Eyeglasses often can correct loss of near or distant vision.
- Assistive devices (magnifiers, telescopes) can support those with vision loss that cannot be corrected with glasses.
- In the home and community, simple measures such as better lighting can improve the functional ability of older people with vision loss.

# 7

## Visual capacity

## Care pathways to manage visual impairment

### ASK

*Do you have any problems with your eyes: difficulties in seeing far, reading, eye diseases or currently under medical treatment (e.g. diabetes, high blood pressure)?*

YES

### TEST VISUAL ACUITY

using WHO simple eye chart (1)

- Always test distance before near vision
- Test without glasses if normally worn
- Test one eye at the time, then together

### DISTANCE VISION (2)

FAIL

### NEAR VISION (3)

FAIL

*Do off-the-shelf simple reading glasses solve the problem?*

NO

YES

- Provide reading glasses

- Reinforce eye care and lifestyle advice, provide vision hygiene advice for person and environment (4)

**REASSESS...**

Repeat the test yearly even in the absence of vision impairment

Fail in distance vision ***always*** requires referral for comprehensive care

### ASSESS VISUAL IMPAIRMENT AND EYE DISEASES → 7.4

- Treat eye diseases
- Manage visual impairment
- Review and update glasses prescription, or offer new glasses
- Consider eye rehabilitation, including assistive vision devices such as desk and mobile magnifiers → 7.5

### ASSESS & MANAGE

ASSOCIATED CONDITIONS

YES

- HYPERTENSION → Manage cardiovascular risk factors
- DIABETES → Refer to specialized eye care for retina check every year → 7.9
- STEROID USE → Review medication to avoid adverse drug reactions on eyes → 7.9

### ASSESS & MANAGE

SOCIAL AND PHYSICAL ENVIRONMENTS

- Give advice on daily living with poor vision
- Introduce home adaptation (lighting, contrasting colours) to prevent falls → 7.10
- Remove hazards from the usual walking path

**VISUAL IMPAIRMENT** *(14)*

**Distance vision impairment:**

- Mild – visual acuity worse than 6/12
- Moderate – acuity worse than 6/18
- Severe – acuity worse than 6/60
- Blindness – acuity worse than 3/60.

**Near vision impairment:**

- Near visual acuity worse than N6 or M.08 with existing correction.

★ Specialized care needed

World Health Organization

## WHEN SPECIALIZED CARE IS NEEDED

If a person has established eye disease or is identified as having eye disease, an eye care specialist decides the frequency and type of examination.

1

## TEST VISUAL ACUITY IN PRIMARY CARE

- Simple screening for vision loss should be carried out **at least once a year for people aged 50 and older**.
- Screening can be performed using the ***WHO simple eye chart*** to test both distance and near vision. Instructions appear at right.
- A primary health-care provider can perform the screening. It does not require formal training in eye care assessment *(13)*.
- If off-the-shelf reading glasses solve a person's vision problem, comprehensive examination may not be needed.

2

## TEST DISTANCE VISION

WITH WHO SIMPLE EYE CHART

Demonstrate close to the person how to do the E test by showing the direction the Es point. Test from the small Es to large Es.

1. **Test with the four small Es at 3 metres.** 7.1
   Vision is 6/18 or better if the direction of at least three out of four small Es can be seen (**PASS** the distance vision screening test).

   If not able to see at least three of the small Es (**FAIL** the distance vision screening test) require assessment of visual impairment and eye diseases. The additional tests below might help estimate visual acuity.

2. **Test with the large Es at 3 metres.** 7.2
   If the Es are seen, vision is 6/60.

*If not able to see at least three of the large Es at 3 metres*

3. **Test with the large Es at 1.5 metres.** 7.2
   If at least three out of four Es are seen, vision is 3/60.

3

## TEST NEAR VISION

WITH WHO SIMPLE EYE CHART 7.3

Let the person hold the near vision test card as close as s/he wants. Test from the largest to the smallest Es.

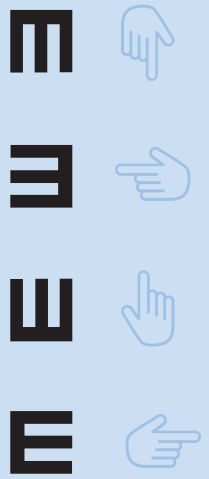
If the person identifies the directions of at least three out of four largest Es, s/he **PASS** the near vision screening test.

If not, check if off-the-shelf reading glasses will help. With the reading glasses, if not able to see at least three of the largest Es (**FAIL** the near vision screening test), require assessment of visual impairment and eye diseases. The medium size is similar to the print in books. The smallest size is similar to the smallest print in books and magazines (not required to be seen).

4

## VISION HYGIENE

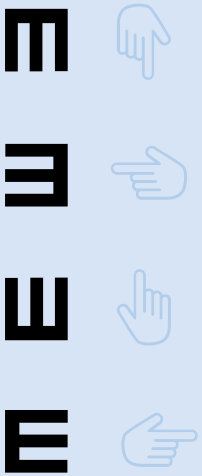
Vision hygiene involves both the environment and the person. Environmental factors and behaviours can facilitate vision function (for example, lighting, contrast, use of colours) or can be detrimental (for example, lengthy electronic media watching, extensive time spent using near vision). Personal hygiene includes the whole set of eye hygiene behaviours such as washing hands frequently, not rubbing the eyes, using only mild soap for eyelids and refraining from eye cosmetics.



# 7

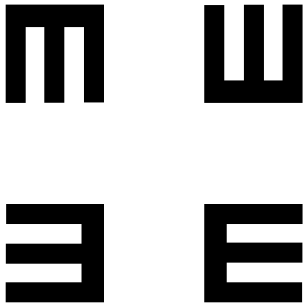
## Visual capacity

Care pathways to manage visual impairment



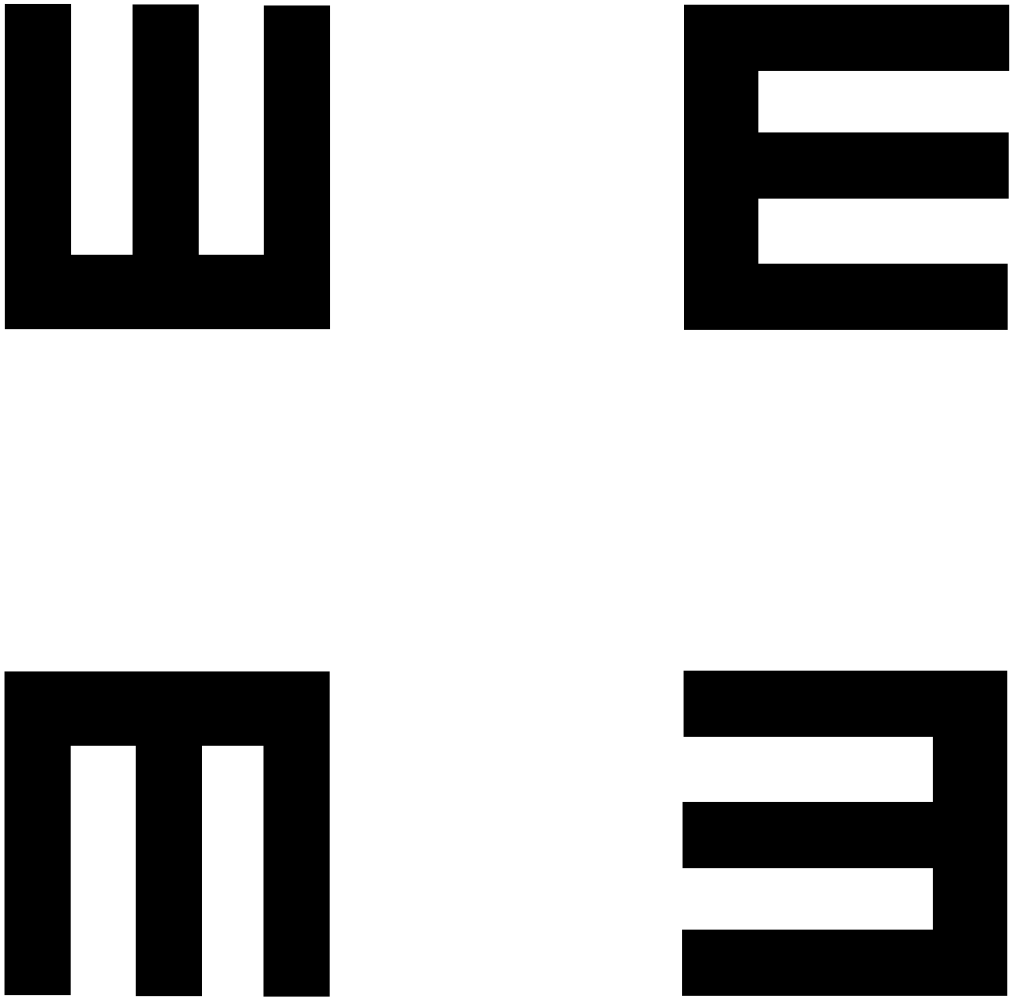
### 7.1 WHO SIMPLE EYE CHART (FOUR SMALL Es FOR DISTANCE VISION)

- Small Es are 1.3cm x 1.3cm, at 1.3cm from each other
- Full black E on plain white paper.

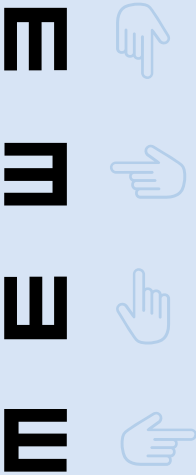


## 7.2 WHO SIMPLE EYE CHART (FOUR LARGE Es FOR DISTANCE VISION)

- Large Es are 4.2cm x 4.2cm, at 4.5cm from each other
- Full black E on plain white paper.



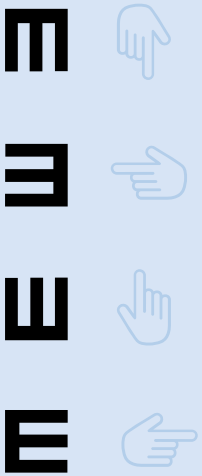




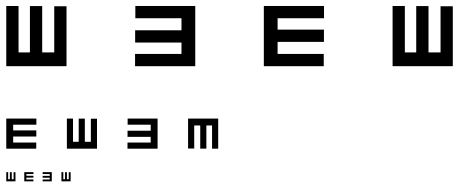
# 7

## Visual capacity

Care pathways to manage visual impairment



### 7.3 WHO SIMPLE EYE CHART (NEAR VISION)



# ASSESS FOR

## VISUAL IMPAIRMENT AND EYE DISEASES

### 7.4 ASSESS VISUAL IMPAIRMENT AND EYE DISEASES

- Sudden or rapidly progressing loss of vision in one or both eyes requires a basic eye and vision examination and a referral for specialized eye care.

- A primary care professional can look at the person's eyes. If there are changes such as red eyes, secretions, scars, ongoing pain, intolerance to sunlight or a cataract, an eye care professional (ophthalmologist, optometrist) should examine the person.

- A primary care professional can examine the eyes for signs of common eye diseases. This examination is generally not comprehensive and requires examination performed by a specialist. If the eye condition listed above persists, specialized eye care is recommended.

- Reading glasses help many older people to see near objects. For some people, however, reading glasses are not the answer. For example, people who are far-sighted or who have astigmatism need eyeglasses prescribed by an eye care professional after examination.

- A standard diagnostic examination includes a trained professional using a slit lamp to examine the eye in detail. This instrument can be used, for example, to detect a cataract and can help decide the need for surgery. Examination of the retina and optic nerve requires using other instruments and sometimes taking images to detect early changes and to guide treatment that can prevent vision loss. Examination of the retina at regular intervals is particularly important for people with diabetes.

**Cataracts**

Cataract is clouding of the lens of the eye, which prevents clear vision, often related to the ageing process. Cataract remains the leading cause of blindness. Reduction of smoking and ultraviolet light exposure may prevent or delay the development of cataract. Diabetes and obesity are additional risk factors.

Visual impairment and blindness from cataracts are avoidable because cataract surgery is safe and can restore sight.

# 7

## Visual capacity

## Care pathways to manage visual impairment

# MANAGE

### VISUAL IMPAIRMENT

### 7.5 READING GLASSES

Many people aged 50 years and older have difficulty seeing or reading at short distances. They can often benefit from using reading glasses (also called “readers”).

Simple reading glasses are available at low cost. They are often available in various magnification strengths. Reading glasses simply make close-up objects appear larger. When simple reading glasses do not resolve the problem, comprehensive eye and vision examination is advisable.

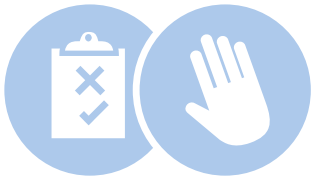
If possible, all people aged 50 or older should be examined by an eye care professional at regular intervals. Simple vision and reading tests are not a substitute for a comprehensive examination done by an eye care professional.

### 7.6 IRREVERSIBLE LOW VISION

Many people have low vision for which prescription glasses cannot correct their vision sufficiently. For these people, assistive vision devices – desk or mobile magnifiers – provide greater magnification than glasses. They can make tasks involving near vision possible, such as reading a book or newspaper, identifying money, reading labels and inspecting small objects or parts of large objects.

Community-level health or rehabilitation workers can help people obtain these devices.

- **Vision rehabilitation.** A person with irreversible low vision will benefit from comprehensive vision rehabilitation services that include psychological support as well as orientation, mobility and training in activities of daily living. Eye care and rehabilitation specialists can train people with low vision in skills that enhance visual functioning – skills such as awareness, fixation, scanning and tracking. These skills are usually needed for the effective use of magnifiers, but they can be useful in other circumstances as well.



# ASSESS & MANAGE
## ASSOCIATED DISEASES

### 7.7 HYPERTENSION

Hypertension is an important risk factor for retinal diseases and glaucoma.

### 7.8 DIABETES

A person with diabetes should have an eye examination by an eye care specialist each year to check for diabetic retinopathy.

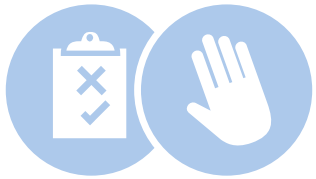
### 7.9 STEROID USE

In some people, long-term therapy with steroids can increase pressure in the eyeball (intraocular pressure) or lead to cataract. This increased pressure can lead to vision loss, which involves damage to the optic nerve, and can lead to blindness if not treated. Anyone receiving long-term steroid therapy needs regular eye examinations and eye pressure checks.

# 7

## Visual capacity

## Care pathways to manage visual impairment



# ASSESS & MANAGE

### SOCIAL AND PHYSICAL ENVIRONMENTS

There are many ways to help people with low vision enjoy better function. Family members and caregivers can help. Local adaptation of this guidance to specify where to get assistive vision devices and how to get services is required depending on the settings.

## 7.10 ADAPTATIONS TO LOW VISION

Beyond provision of assistive vision devices, simple changes can enable people with low vision to maintain their activities and, thus, maintain their quality of life. Changes can be made to the home and in a person's usual areas of movement to make usual tasks and leisure activities safer and easier. The following are examples.

**Improve lighting.** Good lighting is particularly important for near vision. Light is best coming from the side of the person (without creating shadow).

**Reduce glare.** Brighter light is usually better. But glare from the sun or bright lights can bother some people.

**Move obstacles.** Hazards such as furniture and other hard objects can be moved out of the person's usual walking path or, if needed there, should always be left in the same place.

**Create contrast.** Good contrast within and between objects makes them easier to see, find or avoid. Examples are high-contrast marking on the edges of steps (particularly for those with vision in only one eye), coloured plates so that food stands out in contrast, and using a black pen for writing. People with low vision, family members and caregivers can colour the handles of household and kitchen tools to make them more visible and safer – for example, wrapping a knife handle with brightly coloured adhesive tape or painting it.

**Use the most legible type.** For printed materials and electronic display screens on computers and telephones, large, sans serif type (such as the type in this handbook) that stands out clearly from a uniform background colour is easiest to read.

**Choose household objects with larger type and good contrast.** There are often products available in shops that use larger letters and numbers or good contrast. Examples of products available in this way are clocks, watches and large-print books. For leisure, large game boards and pieces, and playing cards with large print and symbols, for example, can be bought or made.

**Use hearing as well as vision assistive tools.** Many items in shops now have speech capacity, such as talking watches, thermometers and scales. Many mobile telephones and computer programs now have a text-to-speech functions.

# 8

## Hearing capacity

## Care pathways to manage hearing loss

Age-related hearing loss may be the most common sensory impairment in older people. Untreated hearing loss interferes with communication and can lead to social isolation. Limitations of other capacities, such as cognitive decline, can make these social consequences worse. Hearing loss is linked to many other health issues, including cognitive decline and risk of dementia, depression and anxiety, poor balance, falls, hospitalizations and early death.

Assessing hearing is therefore a critical part of monitoring older people's intrinsic capacity at the community level. Assessing hearing in greater depth is also a critical part of a full assessment of an older person's health and social care needs.

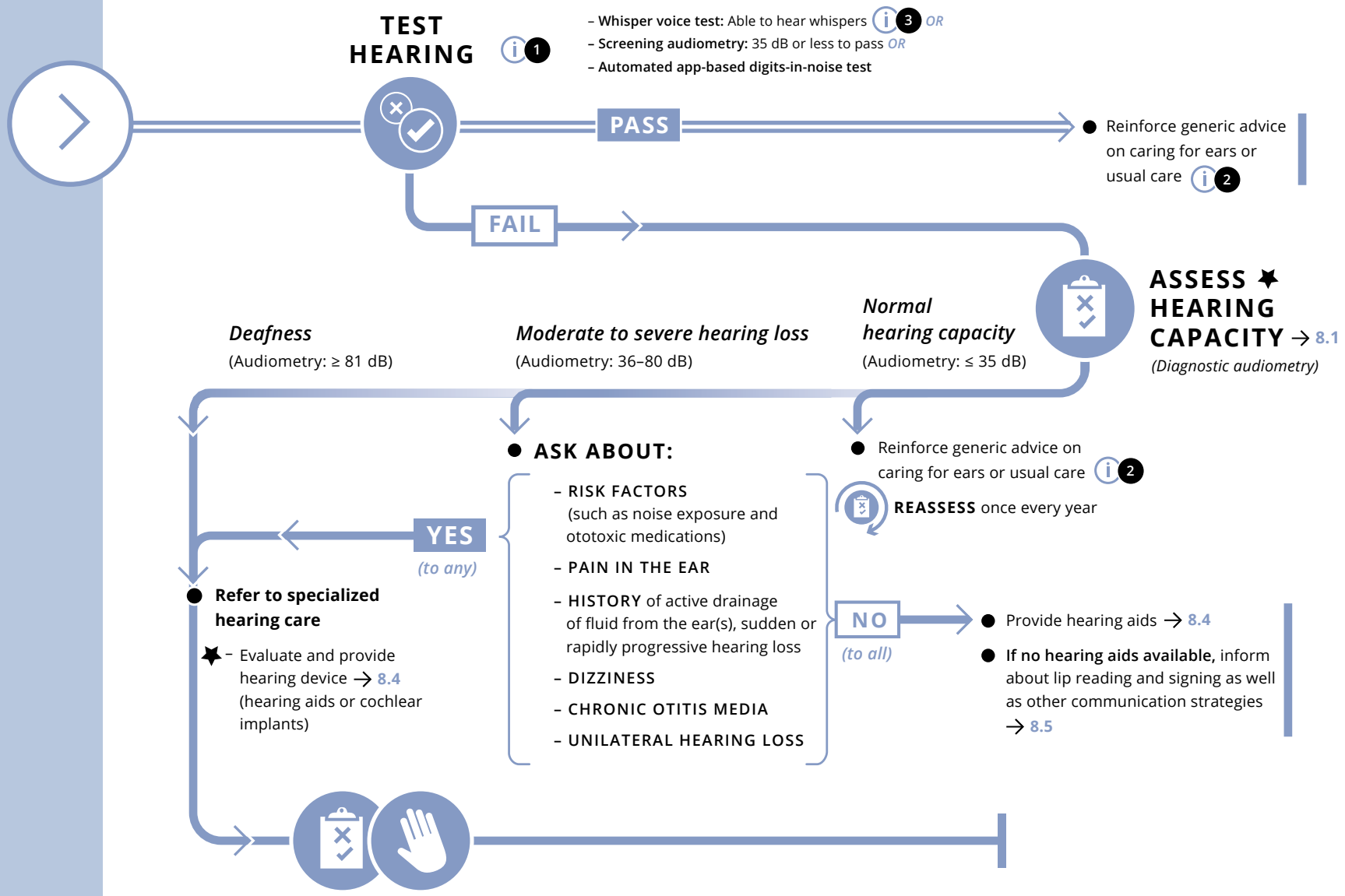
**KEY POINTS**

- Community- and facility-based primary care workers can screen for hearing loss with simple portable equipment or a whisper voice test.
- Simple actions in the household and community can reduce the impact of hearing loss. Communication strategies to make hearing easier include speaking clearly, facing the person with hearing loss when speaking, and reducing background noise.
- Improving the hearing itself involves hearing devices such as hearing aids and cochlear implants. Providing them requires specialized knowledge and equipment.

# 8

## Hearing capacity

Care pathways to manage hearing loss




✸ Specialized care needed

World Health Organization

## WHEN SPECIALIZED CARE IS NEEDED

- Evaluation of a person with severe hearing loss/deafness.
- Fitting of a hearing assistive device.
- Management of an underlying problem that causes or contributes to hearing loss.

1

## TEST HEARING

Initial assessment uses one of three possible tests.

### WHISPER VOICE TEST

The whisper voice test is a screening tool that can help determine whether a person has normal hearing or needs diagnostic audiometry.

### SCREENING AUDIOMETRY *(15)*

***Use screening audiometry if you have the equipment.***

Screening audiometry presents tones across the speech spectrum (500 to 4,000 Hz) at the upper limits of normal hearing. Results are recorded as pass or refer. A reading of 35 dB or less indicates normal hearing. With brief specific training, a non-specialist can accurately test hearing with this equipment.

### AUTOMATED APP-BASED DIGITS-IN-NOISE TEST

An automated digits-in-noise self-test also can be used to determine whether diagnostic audiometry is needed.

Available as a **mobile phone app** – for example:

- **hearWHO:** *https://www.who.int/deafness/hearWHO (free, in English)*
- **hearZA:** *https://www.hearza.co.za/ (free, in English)*
- **uHear:** *http://unitron.com/content/unitron/nz/en/professional/practice-support/uhear.html (free, for iPhone users, in English, French, German and Spanish).*

Available as a **web-based service** – for example:

- from **HearCom:** *http://hearcom.eu/prof/DiagnosingHearingLoss/SelfScreenTests/ThreeDigitTest_en.html (free, in Dutch, English, German, Polish and Swedish).*

2

## GENERIC ADVICE ON CARING FOR EARS

- **DO NOT** put dirty fingers in ears or forget to wash hands before working with food, and do not eat with dirty hands
- **ALWAYS** wash your hands after going to the toilet
- **DO NOT** swim or wash in dirty water
- **DO NOT** put anything in your ears:
  – hot or cold oil
  – herbal remedies
  – liquids such as kerosene.

3

## WHISPER VOICE TEST

- Stand about an arm's length away behind and to one side of the person.
- Ask the person or an assistant to close off the opposite ear by pressing on the tragus. (The tragus is the projection in front of and partly covering the opening of the ear.)
- Breathe out and then softly whisper four words. Use any common, unrelated words.
- Ask the person to repeat your words. The words should be spoken one by one, and wait for the response to each one at time. ***If the person repeats more than three words and you are sure that the s/he can hear you clearly, then the person is likely to have normal hearing in this ear.***
- Move to the other side of the person and test the other ear. Use different words.

***Whisper words that will be familiar to the person.*** Here are examples:

| | |
|---|---|
| *– factory* | *– fish* |
| *– sky* | *– bicycle* |
| *– fire* | *– garden* |
| *– number* | *– yellow* |

# 8

## Hearing capacity

Care pathways to manage hearing loss

# ASSESS
## HEARING CAPACITY

### 8.1 THREE TESTS FOR COMPREHENSIVE ASSESSMENT

**Hearing assessment can involve three tests with specialized equipment** – a diagnostic audiometer for pure tone, and speech audiometry and a tympanometer for middle ear assessment. These tests can help to identify the need for rehabilitation. Doing these tests needs specialized training.

**Pure tone audiometry.** Pure tone audiometry (PTA) tests a person's ability to hear sounds of different pure tone frequencies (pitches). It consists of playing pre-recorded sounds louder and louder until the person can hear them – the hearing threshold. It tests air conduction and bone conduction of sounds to assess hearing thresholds at frequencies from 125 Hz (very low) to 8000 Hz (very high). This test helps to determine the degree and type of hearing loss.

**Speech audiometry.** Older adults benefit from an additional test – speech audiometry. In this test a series of pre-recorded simple words are played at increasing volumes, and the person is asked to repeat the words when they hear them. This test cross-checks the results of the PTA. It helps to determine whether speech recognition is consistent with the PTA results, if there is an asymmetry of speech perception that is not predicted by the PTA, or identifies which ear to fit with a hearing aid if only one hearing aid is being fitted.

**Tympanometry.** Finally, tympanometry tests the compliance (or mobility) of the ear drum. This test can support the pure tone and speech audiometry results to determine the type of hearing problem.

# MANAGE
## HEARING LOSS

8

Hearing capacity

Care pathways to manage hearing loss

Both communication strategies and hearing devices should be considered to deal with hearing loss.

The best approach to managing hearing loss should be decided in light of the complete assessment of the person's intrinsic capacity. Any cognitive decline, any loss of locomotor capacity or loss of dexterity in the arms or hands, and the support available from family and community all need to be considered.

## 8.2 FOR OLDER PEOPLE WITH MODERATE TO SEVERE HEARING LOSS

- Explain to people with hearing loss and their families the benefit of hearing devices such as hearing aids, where to get them and how to use them. Once a person has a hearing aid, the health worker can support and encourage its use.

- Audiometry alone should not determine whether a person needs a hearing aid. Most people with hearing loss complain about difficulty communicating when there is background noise. A person must be assessed for their overall need before suggesting the use of hearing aids.

- Give clear guidance to people with hearing loss and to their families and caregivers on communication strategies that can improve functional ability. → 8.5

- Certain medications can cause damage to the inner ear, resulting in hearing loss and/or loss of balance. These include antibiotics such as streptomycin and gentamicin and antimalarials such as quinine and chloroquine. Other medications also can affect hearing. Reducing these medications, if possible, may prevent further hearing loss.

## 8.3 FOR OLDER PEOPLE WITH DEAFNESS

An older person with a high degree of hearing loss (severe or profound) or who does not benefit from the above-mentioned interventions will need specialized hearing care such as the fitting of a hearing device. **Providing hearing devices needs specialized skills for testing, prescription and fitting.**

**Other red flags for specialized hearing care**

Conditions that may underlie hearing loss need specialized diagnosis and management. These include:

- pain in the ear
- chronic otitis media (middle ear infection)
- sudden or rapidly progressive hearing loss
- dizziness with moderate to severe hearing loss
- active drainage of fluid from the ear(s)
- presence of risk factors such as noise exposure and taking medications that can damage hearing.

# 8

## Hearing capacity

## Care pathways to manage hearing loss

### 8.4 HEARING DEVICES

**Hearing aids.** Hearing aids are usually the best technology for older people with hearing loss. Hearing aids make sounds louder. They can be effective for most people, and they are convenient because they are worn in or on the ear. It is important to explain to people that hearing aids do not cure or treat hearing loss.

**Cochlear implants.** Cochlear implants can benefit a person with a high degree of hearing loss who is not benefitted by hearing aid use. A cochlear implant is surgically placed in the ear. It turns sounds into electrical impulses and sends them to the nerves of the ear. A person must be evaluated carefully to see if a cochlear implant will help. If cochlear implantation is not available or feasible, the older adult and his or her family should be informed about and trained in lip-reading and sign language.

**Audio induction loops and personal sound amplifiers.** Audio induction loops and personal sound amplifiers are also effective. An audio induction loop, or hearing loop, is a wire or wires placed around a space (for example, a meeting room or service counter). The wires send signals from a microphone and amplifier to certain types of hearing aids.

**The WHO *Guidelines for hearing aids and services for developing countries* offer more guidance:**

*http://apps.who.int/iris/handle/10665/43066*

# ASSESS & MANAGE

## SOCIAL AND PHYSICAL ENVIRONMENTS

Minimizing the impact of hearing loss can help to preserve independence and reduce the need for older adults to rely on community services for everyday living needs. Family members, other caregivers and the community can all help.

Hearing loss often leads to psychological distress and social isolation. For this reason, audiological rehabilitation is now placing greater emphasis on psychosocial considerations, tailored to the goals of the older person and their caregivers.

- Regular social interaction may reduce the risk of cognitive decline, depression and other emotional and behavioural consequences of hearing loss. In times of particular distress, social support networks can help.
- Partners and family members can help to prevent loneliness and isolation. They may need advice on how to do this. For example, they should keep communicating with the person who has hearing loss and organize activities that keep the person involved in a social network. See the box at right for advice on speaking to a person with hearing loss. → 8.5
- Environmental solutions at home can include putting doorbells and telephones where they can be heard throughout the house.

### 8.5 COMMUNICATION STRATEGIES FOR FAMILY MEMBERS AND CAREGIVERS

Health-care workers can advise family members and caregivers to follow certain simple practices when speaking to a person with hearing loss *(14)*.

- ✓ Let the person see your face when you speak.
- ✓ Make sure there is good light on your face to help the listener to see your lips.
- ✓ Get the person's attention before you speak.
- ✓ Try to avoid distractions, especially loud noises and background noise.
- ✓ Speak clearly and more slowly. Do not shout.
- ✓ Do not give up speaking to people who have difficulty hearing. This would isolate them and could lead to depression.

***These strategies are helpful whether or not a person has a hearing assistive device.***

# 9

## Psychological capacity

# Care pathways to manage depressive symptoms

The term “depressive symptoms” (or low mood) applies to older adults who have two or more simultaneous symptoms of depression most of or all the time for at least two weeks, but who do not meet the criteria for a diagnosis of major depression. Depressive symptoms are more common in older people with long-term and disabling conditions, in social isolation or who are caregivers with demanding care responsibilities. These issues should be considered as part of a comprehensive approach to managing depressive symptoms.

Depressive symptoms are an important aspect of psychological capacity, but only one dimension. There are other aspects such as anxiety, personality characteristics, coping and mastery that need complex measures.

This chapter provides guidance on preventing and managing depressive symptoms in older people. Further guidance on interventions for depression can be found in the WHO *mhGAP intervention guide*, at ***https://apps.who.int/iris/handle/10665/250239***

### KEY POINTS

- By asking a series of questions, the primary care worker in the community can identify those with depressive symptoms and distinguish depressive symptoms from depression.
- Using brief structured psychological interventions, trained and supervised non-specialist health-care professionals can help people with depressive symptoms in the community and other primary care settings.
- Depression requires a comprehensive and usually specialist approach to treatment.
- Declines in other domains of intrinsic capacity, such as in hearing or mobility, may impair functional abilities, reduce social participation and contribute to depressive symptoms.

# 9

## Psychological capacity

## Care pathways to manage depressive symptoms

**SCREEN**
FOR DEPRESSIVE SYMPTOMS

**ASK**
*Over the past two weeks, have you been bothered by*

*Feeling down, depressed or hopeless?**

NO

*Little interest or pleasure in doing things?*

NO

- Reinforce generic health and lifestyle advice or usual care

YES
*(to either of the above)*

**ASSESS MOOD** (i) 1

**DEPRESSIVE SYMPTOMS** (i) 2
***(0–2 additional symptoms)***

- Offer brief structured psychological interventions: → 9.1
  - cognitive behavioural therapy
  - problem-solving counselling or therapy
  - behavioural activation
  - life review therapy
- Multimodal exercise → 9.2
- ★ Mindfulness practice → 9.3

**DEPRESSION**
***(≥ 3 additional symptoms)***

- ★ **Treat depression**
  Older people who have a diagnosis of major depression generally need specialized care. They should be advised and treated as recommended in the WHO *mhGAP intervention guide.*
  *https://apps.who.int/iris/handle/10665/250239*

NO
*(to all)*

**ASSESS & MANAGE**
ASSOCIATED CONDITIONS → 9.4–9.7

- Major loss in the last six months
- History of mania
- Cognitive impairment
- Hearing loss
- Visiual impairment
- Disability due to illness or injury

- POLYPHARMACY → Review medications such as antidepressants, antihistamines, antipsychotics
- ANAEMIA, MALNUTRITION, HYPOTHYROIDISM → Integrated management of conditions → 6
- PAIN → Assess and manage pain

**ASSESS & MANAGE**
SOCIAL AND PHYSICAL ENVIRONMENTS

- Reduce stress and strengthen social support
- Motivate older people to stay mobile and socially connected
- Promote functioning in daily activities
- Encourage participation in community-based exercise programmes and skills development
- Identify and tackle loneliness and social isolation (consider technology-assisted interventions )

★ Specialized care needed

* Older people use a wide variety of terms for low mood, like sadness, depressed, down, etc.

World Health Organization

1

## ASSESS MOOD

If a person reports at least one of the core symptoms – feeling down, depressed or hopeless and having little interest or pleasure in doing things – do a further assessment of mood. Alternative words can be used if a person is not familiar with those in the two screening questions.

**ASK:**

***"Over the last two weeks, have you been bothered by any of the following problems?"****

- Trouble falling or staying asleep, or sleeping too much.
- Feeling tired or having little energy.
- Poor appetite or overeating.
- Feeling bad about yourself or that you are a failure or that you have let yourself or your family down.
- Trouble concentrating on things such as reading the newspaper or watching television.
- Moving or speaking so slowly that other people could have noticed.
- Being so fidgety or restless that you have been moving around a lot more than usual.
- Thoughts that you would be better off dead or of hurting yourself in some way.

* These questions can be found in the Patient Health Questionnaire (PHQ-9) (http://www.cqaimh.org/pdf/tool_phq9.pdf), which is one tool for the assessment of depressive symptoms. Or see the depression section of the *mhGAP intervention guide*, at https://apps.who.int/iris/handle/10665/250239.

## WHEN SPECIALIZED CARE IS NEEDED

- **Management of depression needs a more comprehensive and usually specialist approach to develop a personalized care plan.**
- **To manage depressive symptoms, health workers need specific training in brief structured psychological interventions.**
- **Certain associated conditions, such as hypothyroidism, may need specialized diagnosis and management.**

2

## DEPRESSIVE SYMPTOMS

If a person has at least one of core symptoms and one or two additional symptoms, they may have depressive symptoms. If a person has more than two symptoms, they may qualify for a diagnosis of depressive disorder. It is important to distinguish depressive symptoms from depressive disorder because their treatments differ.

- Cognitive decline and dementia may be associated with depressive symptoms and must be assessed as well. People with dementia often come to a health worker with complaints of mood or behavioural problems, such as apathy, loss of emotional control, or difficulties carrying out usual work, domestic or social activities.
- At the same time, declines in other domains of intrinsic capacity, such as sensory or mobility, may reduce functional ability and social participation, and so contribute to depressive symptoms.
- Interventions for declines in other components of intrinsic capacity, such as cognition or hearing, may be more effective if depressive symptoms are addressed at the same time. This should be considered when developing the personalized care plan.

# 9

## Psychological capacity

## Care pathways to manage depressive symptoms



# MANAGE

## DEPRESSIVE SYMPTOMS

### 9.1 BRIEF STRUCTURED PSYCHOLOGICAL INTERVENTIONS

Brief structured psychological interventions, such as cognitive behavioural therapy, problem-solving approaches, behavioural activation and life review therapy, may considerably reduce depressive symptoms in older adults. Multimodal exercise and mindfulness practice can also reduce depressive symptoms.

Many psychological interventions can be used, with the consent and agreement of the older person and taking into account their concerns, such as difficulties with problem-solving. Physical exercise should be considered, in addition to structured psychological treatments, due to the positive effect of physical exercise in improving mood (see Chapter 5 on limited mobility). → 5

Prescriptions of antidepressants by primary care physicians without specialized knowledge in mental health is not recommended.

Health professionals with training in mental health would usually administer these interventions. Community health workers also could provide them if they are skilled in using them and trained in the mental health issues of older people. No harms have been associated with these interventions.

**Cognitive behavioural therapy**

Cognitive behavioural therapy (CBT) is based on the idea that feelings are affected by both beliefs and behaviour. People with depressive symptoms (or diagnosed mental disorders) may have unrealistic, distorted negative thoughts that, if unchecked, can lead to harmful behaviour. Thus, CBT typically has a cognitive component – helping the person to develop the ability to identify and challenge unrealistic negative thoughts – as well as a behavioural component to enhance positive behaviours and reduce negative behaviours. Steps can include (1) identifying problems in one's life, (2) becoming aware of thoughts, emotions and beliefs about these problems, (3) identifying negative or inaccurate thinking (4) and reshaping this thinking to be more realistic.

**Problem-solving counselling or therapy**

A problem-solving approach should be considered for people with depressive symptoms who are in distress or who have some degree of impaired social functioning (in the absence of a diagnosed depressive episode or disorder).

Problem-solving therapy offers the person direct and practical support. The health professional acting as the therapist and the older person work together to identify and isolate key problem areas that might be contributing to the depressive symptoms. Together, they break these down into specific, manageable tasks by problem-solving and by developing coping strategies for specific problems.

**Behavioural activation**
Behavioural activation involves encouraging the person to participate in rewarding activities as a means to reduce depressive symptoms.

This approach can be learned more quickly than most other evidence-based psychological treatments. It might be learned by non-specialists and so access to care for depressive symptoms can be increased. The intervention has been studied mainly as a multiple-session intervention conducted by specialists. It is possible, however, that the intervention could be modified into a brief intervention and delivered by trained health professionals as an adjunct treatment or as part of a first step in a comprehensive care approach in primary care.

**Life review therapy**
Life review therapy involves a therapist guiding a person to remember and evaluate their past in order to achieve a sense of peace or acceptance about their life. This type of therapy can help put life in perspective and even recover important memories about friends and loved ones. Life review therapy can help to treat depression in older adults and can help those facing end-of-life issues. Therapists centre life review therapy on life themes or by looking back on certain time periods, such as childhood, parenthood, becoming a grandparent or working years.

## 9.2 MULTIMODAL PHYSICAL EXERCISE

A programme of exercise tailored to the physical abilities and preferences of the person can reduce depressive symptoms in the short term and perhaps in the longer term as well. See Chapter 5 on limited mobility. → 5

## 9.3 MINDFULNESS PRACTICE

Mindfulness consists of paying attention to what is happening in the present moment instead of being carried along by a train of thoughts about the past, future, wishes, responsibilities or regrets. Such latter thoughts can become a downward spiral for a person with depressive symptoms. There are many types of mindfulness practice. An approach widely used is sitting or lying quietly and focusing attention on the sensations of breathing. Mindfulness of physical movement – for example, during yoga or walking – is also helpful for some people.

# 9

## Psychological capacity

## Care pathways to manage depressive symptoms



# ASSESS & MANAGE

## ASSOCIATED CONDITIONS

The presence of the following associated conditions would suggest a different approach from treatment for depression is needed.

- **Major loss in the last six months.**

- **History of mania.** Mania is an episode of mood elevation and increased energy and activity. People who experience manic episodes are classified as having bipolar disorder. History of mania can be identified by checking several symptoms occurring simultaneously, lasting for at least one week, and severe enough to interfere significantly with work and social activities or requiring hospitalization or confinement (see the *mhGAP intervention guide https://www.paho.org/mhgap/en/bipolar_flowchart.html*).

- **Cognitive decline.** The relationship between depression and cognitive decline is complex. The epidemiological studies have long linked depression to the development of Alzheimer's disease. The cognitive functions affected in depression are attention, learning and visual memory as well as executive functions. Depression could be a psychological response to the individual's self-awareness of mild cognitive decline that has not yet begun to interfere with daily functioning.

- **Hearing loss.** Older people with hearing loss may be likely to report embarrassment, anxiety and loss of self-esteem, and are less likely to participate in social activities and physical activity, leading to social isolation and loneliness, and eventually depression *(15).*

- **Visual impairment and the presence of major age-related eye diseases such as age-related macular degeneration and glaucoma** are associated with an increased risk of depression *(16)*. People with poor visual functioning often report that they feel unhappy, lonely or even hopeless.

- **Reaction to disability due to illness or injury.** Depression is a common secondary condition in people with disabilities. People who experience disability due to illness and injury undergo stress; they must also cope with life transitions. The stages of adjusting to a new form of disability include shock, denial, anger/depression and adjustment/acceptance. Older people with new disabilities are at risk of developing anxiety and depression.

## 9.4 POLYPHARMACY

Polypharmacy can lead to depressive symptoms, and depressive symptoms may lead to polypharmacy. Addressing polypharmacy as well as depressive symptoms is important, to break the vicious circle. In addition to drugs that act primarily on the central nervous system, drugs with psychotropic properties, such as antihistamines and antipsychotics, muscle relaxants and other non-psychotropic drugs with anticholinergic properties can be associated with depressive symptoms. Eliminating unnecessary, ineffective medications as well as medications with duplicative effects reduces polypharmacy.

## 9.5 ANAEMIA, MALNUTRITION

Anaemia and malnutrition can lead to depressive symptoms because of deficiencies of iron, vitamins such as folate, vitamin B6 and vitamin B12. Depressive symptoms can also play a role in the development of anaemia. Loss of appetite and lack of interest in performing daily activities (such as shopping and cooking) can reduce the quality and quantity of nutrition of older adults, facilitating the development of anaemia and malnutrition. To manage depressive symptoms, it is crucial to manage anaemia and improve nutritional status (see Chapter 6 on malnutrition). → 6

## 9.6 HYPOTHYROIDISM

Hypothyroidism is a common disorder in older people, especially women. The symptoms of hypothyroidism can be non-specific and vary from person to person, but they can include depressive symptoms. Hypothyroidism should be assessed and managed by health workers with specialized knowledge.

## 9.7 PAIN

Individuals reporting chronic pain more often have depressive symptoms. It is important to assess and manage pain (see Chapter 5 on limited mobility). → 5

# 9

**Psychological capacity**

## Care pathways to manage depressive symptoms

# 9

## Psychological capacity

### Care pathways to manage depressive symptoms



## ASSESS & MANAGE

### SOCIAL AND PHYSICAL ENVIRONMENTS

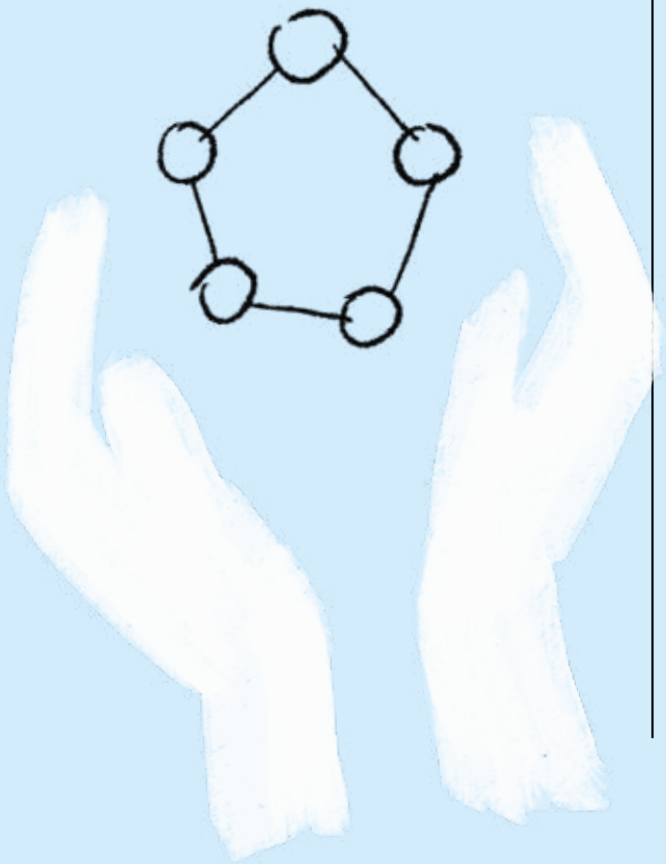
Loss of interest in activities that used to be interesting or pleasurable is typical in depression. Family members and caregivers can offer gentle encouragement and support for more physical activity and more social engagement such as community-based exercise programmes and skills development.

If an older person experiences loss in capacity, such as hearing loss or limitation in locomotor capacity, family members and caregivers can pay special attention to avoiding social isolation. Social isolation can lead to depressive symptoms. Consider technology-assisted interventions using the phone or the Internet to address loneliness.

# 10

## Social care and support

## Care pathways for social care and support



For people with significant losses of intrinsic capacity, dignity is often possible only with care, support and assistance from others. The availability of social care and support is critical to ensuring a dignified and meaningful life. Social care and support includes not only help with activities of daily living (ADLs) and personal care, but also facilitating access to community facilities and public services, reducing isolation and loneliness, helping with financial security, providing a suitable place to live, freedom from harassment and abuse, and participation in activities that give life meaning.

The most appropriate person to ask about social care and support needs may vary by question. If the older person has cognitive decline, questions about ADLs and finances may be best asked of someone who knows the person well, such as a family member, caregiver or friend.

### KEY POINTS

- Reduced functional ability is common among older people, especially among those with declined intrinsic capacity, but it is not inevitable.
- Community health workers can screen for losses in functional abilities with a simple questionnaire.
- Interventions tailored to an older person's priorities can improve functional ability.
- Effective interventions include those to improve intrinsic capacity, functional ability and the provision of social care and support.

# 10

## Social care and support

## Care pathways for social care and support

**ASSESS**
SOCIAL CARE AND SUPPORT NEEDS

**ASK**

**A**

1. *Do you have difficulty getting around indoors?*
2. *Do you have difficulty using the toilet (or commode)?*
3. *Do you have difficulty dressing yourself?*
4. *Do you have difficulty using the bath or shower?*
5. *Do you have difficulty keeping up your personal appearance?*
6. *Do you have difficulty feeding yourself?*

**YES** → HELP WITH SOCIAL CARE (PERSONAL ASSISTANCE)

- Assess and modify physical environment to compensate for loss of intrinsic capacity, improve mobility and prevent falls
- Consider use of assistive technologies, aids and adaptations
- Assess support from spouse, family or other unpaid caregivers, and include an assessment of the caregiver's needs
- Review needs for support from paid care workers
- Caregivers and services should be available such as home-base care, day-care, nursing home

**B**

7. *Do you have problems with the place where you live (accommodation)?* **YES** →

ASK SUPPLEMENTARY QUESTIONS

***Do you have concerns because of:***

1. *Your safety and security where you live?*
2. *The condition of your house?*
3. *The location of your home?*
4. *The costs of housing?*
5. *The repair and maintenance of your home?*
6. *Managing to live independently where you are?*

**YES** →

- **Consider:**
  - home adaptations
  - alternative accommodation
  - refer to social welfare or community housing programmes or existing support networks

8. *Do you have problems with your finances?* **YES** →

ASK SUPPLEMENTARY QUESTIONS

1. *In general, how do your finances work out at the end of the month?*
2. *Are you able to manage your money and financial affairs?*
3. *Would you like advice about financial allowances or benefits?*

- **Consider:**
  - referral for specialist financial advice
  - advice on delegation of financial decision-making with protection against financial abuse

9. *Do you feel lonely?* **YES** →

**Review ways to enhance:**

- close social connections (spouse, family, friends, pets)
- use of local community resources (clubs, faith groups, day centres, sports, leisure, education)
- opportunities to contribute (volunteering, employment)
- connectivity using communications technology

10. *Are you able to pursue leisure interests, hobbies, work, volunteering, supporting your family, educational or spiritual activities that are important to you?* **NO** →

ASK SUPPLEMENTARY QUESTIONS TO IDENTIFY THE BARRIERS:

***You are not able to pursue... because of:***

*1. cost, 2. distance, 3. transport, 4. lack of opportunities, 5. others?*

- Provide a list of local community services available to older people, such as leisure facilities and clubs, adult education providers, volunteering and employment advisory services
- Encourage the older person to use these services to increase their participation

11. *Assess risk of elder abuse* →

Observational information based on the behaviour of the older person, the behaviour of their caregivers or relatives, or from signs of physical abuse should be used to identify potential abuse. [1]

- If any immediate threat, refer for specialist assessment through social work, adult protection, or law enforcement systems

World Health Organization

## WHEN SPECIALIZED KNOWLEDGE IS NEEDED

Health workers should know who older people should be referred to for specialist assessment. Protocols will vary depending on availability. A village head, school principal, monk or leader of a faith group are examples of people who can be appropriate instead of a social worker in some settings. Given that integrated social care and support requires the support of multiple dimensions, regular meetings to foster trust among specialists and services are important. The following are examples of the areas of expertise of different specialists involved in older people's care.

- Living condition: housing services, social worker, occupational therapist.
- Finances: social worker, benefit advisory services.
- Loneliness: social worker, voluntary services, primary care physician.
- Participation: social worker, leisure, employment and voluntary services.
- Abuse: social worker, adult protection, law enforcement services.
- Activities of daily living: occupational therapist, social worker, nurse or multidisciplinary older age specialist team.
- Indoor mobility: physiotherapist, occupational therapist, social worker or multidisciplinary older people's specialist team.
- Outdoor mobility: physiotherapist, social worker, voluntary transport services.

## 1 OBSERVATIONAL CUES FOR POSSIBLE ELDER ABUSE

### BEHAVIOUR OF THE OLDER PERSON

- Seems to be afraid of a relative or a professional caregiver.
- Does not want to answer when asked, or looks with anxiety at the caregiver/relative before responding.
- Behaviour changes when the caregiver/relative enters or exits the room.
- Refers to the caregiver in terms such as "strong willed" or often "tired" or "bad tempered", or as becoming irritable/very anxious/highly stressed/loses temper very easily.
- Shows exaggerated respect or extreme deference for the caregiver.

### BEHAVIOUR OF THE CAREGIVER/RELATIVE

- Hinders or prevents the professional and the older person from talking in private, or keeps finding reasons to interrupt the flow of the assessment interview (repeatedly coming into the room, for example).
- Insists on answering questions that are instead addressed to the older person.
- Places obstacles in the way of providing assistance at home for the older person.
- Demonstrates a high level of dissatisfaction about having to take care of the older person.
- Attempts to convince practitioners that the older person is "crazy" or demented, or that the person does not know what they are saying due to confusion, when this is not the case.
- Is hostile, tired or impatient during the interview, and the older person is very restless or indifferent in their presence.

### PHYSICAL ABUSE

- Cuts, burns, bruises and scratches.
- Injuries that do not match an explanation given for them.
- Injuries that are unlikely to have happened accidentally.
- Injuries and wounds in concealed places.
- Bruising that is shaped like fingers from rough handling (often upper arms).
- Injuries in protected areas, e.g. underarms.
- Untreated injuries.
- Multiple injuries at different stages of healing.
- Medication underuse or overuse.

# 10

## Social care and support

### Care pathways for social care and support



# ASSESS & MANAGE

## SOCIAL SUPPORT NEEDS

### 10.1 ASSESS AND MANAGE NEED FOR PERSONAL CARE AND ASSISTANCE WITH DAILY ACTIVITIES (SECTION A OF PATHWAY)

Six questions are used to assess whether a person has reached the point of no longer being able to take care of themselves without the help of others. An older person with significant loss of intrinsic capacity would benefit from this assessment.

Getting around indoors covers a number of activities, such as moving from a bed to a chair, walking, getting to the toilet and using it, and managing stairs. Limited mobility leads to increased risks and for the need for personal care. Dressing, feeding, bathing and grooming are ADLs. Being unable to do ADLs leads to a need for personal care. Many older people do not want to rely on others for help with ADLs, preferring to be able to manage for themselves.

Older people who have difficulties with ADLs and/or mobility problems benefit from a programme of rehabilitation. This may be focused on improving capacities but may also include assistive technologies and environmental adaptations to optimize functional ability despite the limitations in intrinsic capacity. Transport services can be provided to help with outdoor mobility. If difficulties remain, support from a spouse, family and other unpaid carers should be reviewed, including a consideration of their own needs. If further support is needed, voluntary, private or public home care services should be provided.

### 10.2 ASSESS AND MANAGE SOCIAL SUPPORT NEEDS (SECTION B OF PATHWAY)

Regardless of the level of intrinsic capacity and functional ability, an assessment of social support needs will benefit an older person. Providing social support enables an older person to do the things that are important to them. This includes support for their living condition, financial security, loneliness, access to community facilities and public services, and support against elder abuse.

#### B7 LIVING CONDITION

The place where an older person lives can affect their health, independence and well-being. Problems can relate to many things, including the place's size, access, condition, safety and security. Supplementary questions can help to identify specific areas to address.

Problems with living conditions can be mitigated by introducing new security measures, having a number to call in the event of an emergency and making adaptations to maintain independent living. Financial benefits may be available to help with accommodation costs, and for repair and maintenance. If all else fails, a move to more suitable accommodation should be considered.

### B8 FINANCE

Financial resources are strongly associated with health, independence and well-being in older age. Problems can include having too little money to meet basic needs or to fully participate in society, and older people can worry that money will run out or that they will become unable to manage their finances. Further questions can help to identify specific areas that need addressing.

Financial problems can be mitigated though independent advice about financial planning and financial management. Arrangements can be put in place for devolved authority to a trusted third party for managing finances, provided legal protection is in place to prevent financial abuse.

### B9 LONELINESS

Loneliness is common in older age and is associated with an increased likelihood of depression and early death. See Chapter 9 for guidance on screening for depressive symptoms. Being alone is not the same as being lonely – an older person can be lonely even when surrounded by other people, if the quality of the relationships is poor.

It is helpful to ask a lonely older person if increased social contact with family and friends, or meeting others with similar interests, would help to reduce their sense of loneliness. But when asking an older person if increased contact may help, reassure them that the question is private, to help overcome any fears about revealing the nature of personal relationships.

Having a pet animal reduces loneliness for many older people. Use of local community facilities such clubs, faith groups, day centres and sports, leisure or education services should be encouraged. There may be opportunities to contribute through volunteering or paid employment. Social connections can be increased through communications technology. A general review of these measures to combat loneliness should be undertaken. Assessors should be aware of the broad range of local assets.

# 10

## Social care and support

## Care pathways for social care and support

### B10 SOCIAL ENGAGEMENT AND PARTICIPATION

The goal of the ICOPE approach is to help older people to do the things that are important to them. It is helpful to find out what is important to the older person through an understanding of the older person's life, priorities and preferences, as it may be possible to find ways to increase participation.

Leisure activities, hobbies, work, learning and spiritual activities are examples of participation in society. Every older person is unique and will have different, often very specific, priorities for what is important to them. You should ask about and record these as a guide for the personalized care plan.

Further questions should be asked to identify any barriers such as cost, accessibility and opportunity. Assessors should know about the availability of local leisure facilities and clubs, adult education providers, volunteering services and employment advisory services, and discuss whether these might be of interest to the older person. Transport may be an important issue, and services may be available to increase access. Charges for some of these services may be subsidized to allow older people and those on reduced incomes to participate.

### B11 ELDER ABUSE

Many older people dependent on care are vulnerable to abuse, and around one in six older people experience some form of abuse, a figure higher than previously estimated *(20)*. Abuse can take many forms, including neglect, psychological abuse, physical abuse, sexual abuse and financial abuse.

Observational information based on the behaviour of the older person, the behaviour of their caregivers or relatives, or signs of physical abuse should be used to identify potential abuse i 1. If there is any suggestion of abuse, specialist assessment and management will be needed. You will need to let the older person know that you have concerns and will ask for specialist help. You should record your concerns and that you have let the older person know about the referral for specialist help. If you identify any immediate threat, you should refer for specialist assessment through social work, adult protection or law enforcement systems.

# 11

# Caregiver support

## Care pathways to support the caregiver

When declines in intrinsic capacity and functional ability make a person dependent on others for care, caregiving often falls on a spouse, another family member or others in the household. Depending on the older person's needs, the burden of providing care can put the caregiver's well-being at risk.

A health or social care worker in the community can monitor the well-being of caregivers and try to see that caregivers get care for their own health and help with giving care.

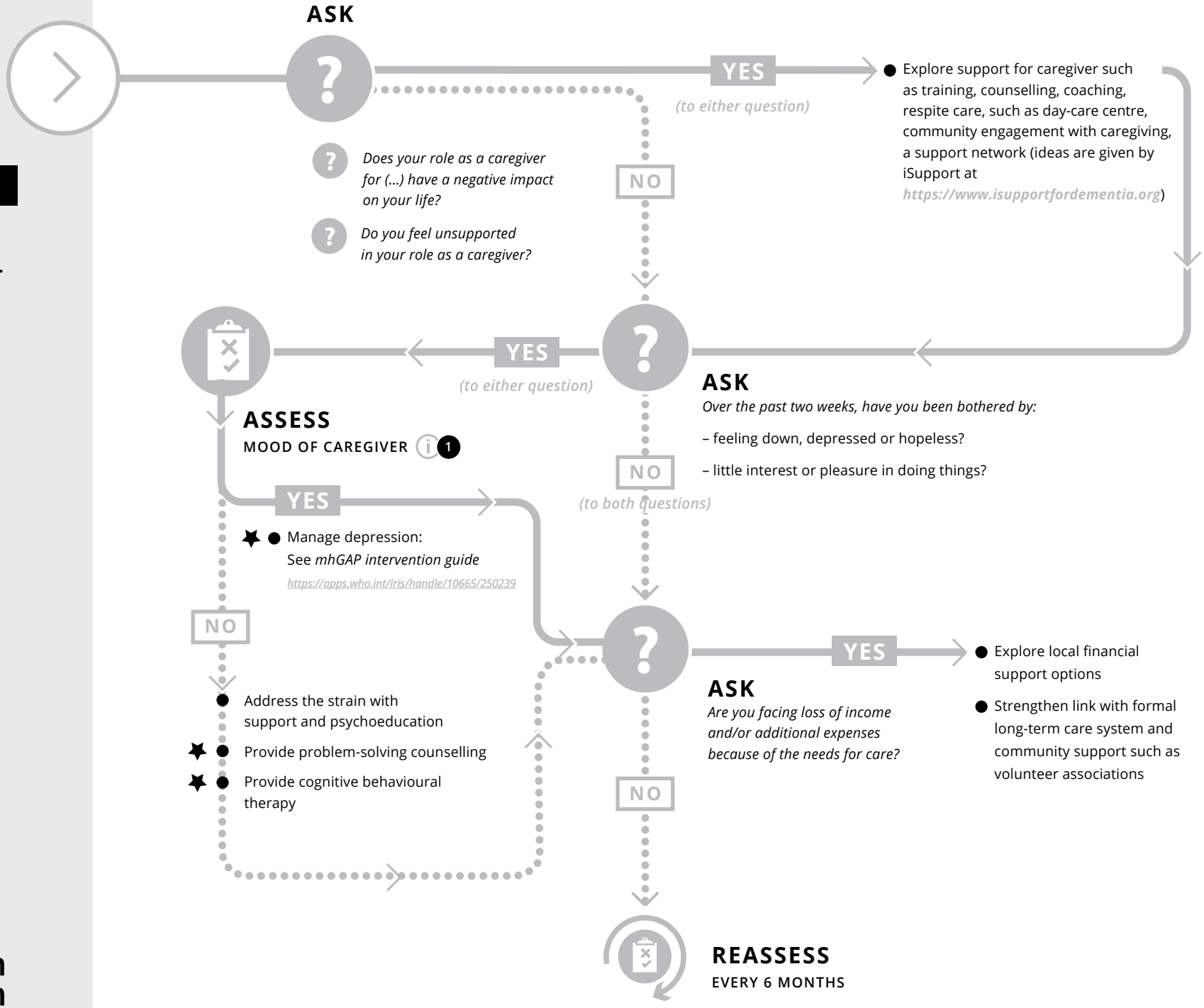
### KEY POINTS

- The burden and stress of caring for older people with significant losses in intrinsic capacity and functional ability can impair the health of the family members and friends who serve as caregivers. Also, it can keep them – particularly women – out of the paid workforce.
- Finding caregivers who themselves need help is an important part of identifying older people with declines in capacity.
- A range of interventions – respite care, advice, education, financial support and psychological interventions – can support the caregiver to sustain a satisfactory and healthy caring relationship.
- Occasionally, the caring relationship becomes abusive. A community worker may see signs of abuse during the assessment of an older person or of a caregiver. At this point, specialist referral is needed.

# 11

## Caregiver support

### Care pathways to support the caregiver




Specialized care needed

World Health Organization

### WHEN SPECIALIZED KNOWLEDGE IS NEEDED

- To treat depression.
- To offer problem-solving counselling or cognitive behavioural therapy to a caregiver with depressive symptoms.
- When an abusive relationship is suspected.

1

### ASSESS MOOD OF THE CAREGIVER

If a person reports at least one of the core symptoms – feeling down, depressed or hopeless and having little interest or pleasure in doing things – do a further assessment of mood. Alternative words can be used if a person is not familiar with those in the two screening questions.

**ASK:** ***"Over the last two weeks, have you been bothered by any of the following problems?"****

- Trouble falling or staying asleep, or sleeping too much.
- Feeling tired or having little energy.
- Poor appetite or overeating.
- Feeling bad about yourself or that you are a failure or that you have let yourself or your family down.
- Trouble concentrating on things such as reading the newspaper or watching television.
- Moving or speaking so slowly that other people could have noticed.
- Being so fidgety or restless that you have been moving around a lot more than usual.
- Thoughts that you would be better off dead or of hurting yourself in some way.

### THE RISK OF ABUSE

The two-way relationship between the person receiving care and the caregiver may be complex. Healthy, happy caregivers are capable of extraordinary support, but sometimes the caring relationship may be unwelcome to one or both participants. This can give rise to conflict, which may make the older person vulnerable to abuse. Abuse can take the form of neglect, of taking material advantage (financially, for example) or of physical, emotional or sexual abuse. Neglect may also occur due to ignorance, lack of skills in caregiving or lack of external support or supervision. Neither the older person nor the caregiver may mention abuse to the health worker. Observational information based on the behaviour of the older person, the behaviour of their caregivers or relatives, or from signs of physical abuse should be used to identify potential abuse (see Chapter 10 on social care and support).

**Factors that increase the likelihood of an abusive relationship are:**

- poor long-term relationship;
- a history of family violence;
- the caregiver's difficulty consistently providing the level or type of care needed; and
- the caregiver's physical or mental health problems, particularly depression and, particularly in men, alcohol and substance abuse.

The likelihood of abuse is not solely related to the nature of the care provided or even to factors often associated with caregiver stress, such as the challenges posed by the behaviour of a person with dementia.

If an abusive relationship is suspected, more detailed specialist assessment is needed, following local referral pathways.

* These questions can be found in the Patient Health Questionnaire (PHQ-9) (http://www.cqaimh.org/pdf/tool_phq9.pdf), which is one tool for the assessment of depressive symptoms. Or see the depression section of the *mhGAP intervention guide*, at https://apps.who.int/iris/handle/10665/250239

# 11

# Caregiver support

## Care pathways to support the caregiver

### 11.1 ASK THE CAREGIVER

The pathway on page 74 guides discussion with the caregiver. In this pathway, every caregiver interviewed is asked about three areas:

1. The burden of caregiving (two questions), potentially leading to practical strategies that support caregivers.

2. The two core symptoms of depression, potentially prompting full assessment for depression (see Chapter 9 on depressive symptoms).

3. The financial costs of caregiving, potentially leading to sources of local financial support and organized social care, as available.

When talking with the caregiver, the worker looks for any signs of exhaustion, anger, frustration or disrespect. Also, the health worker can ask the caregiver if they would like further assessment or support from a social care provider. Over time, the burdens of caregiving can pile up. Reassessment every six months is appropriate.

Assessment of the caregiver's role and its impact is best done away from the older person, to reduce the caregiver's embarrassment or hesitation about speaking openly and fully. The accounts of the older person and the caregiver may differ for various reasons, including memory problems of the older person. The assessment should thus be considered in light of knowledge gained from the complete assessment of intrinsic capacity.

### 11.2 OFFER SUPPORT FOR THE CAREGIVER

Backed and supervised through the health and social care services, appropriately trained professionals and paid caregivers should support unpaid caregivers. In the community, health and social care workers – both professionals and volunteers – can create a network to share available resources for the support of unpaid caregivers.

iSupport is a WHO online training programme that can help caregivers of people living with dementia to provide good care and take care of themselves – see https://www.isupportfordementia.org.

Support focuses on the primary family caregiver. To understand the caregiver's needs, the provider can ask what tasks are performed, how and how often, looking for aspects of care that may be helped by advice, practical support or innovative assistive technologies (see Box on page 77). Support should reflect the caregiver's choices and emphasize optimizing the caregiver's well-being.

# 11

## Caregiver support

## Care pathways to support the caregiver

**Health and social workers can:**

- provide the caregiver with training and support for specific care skills – for example, managing difficult behaviour;
- consider providing or arranging practical support, such as respite from care; and
- explore whether the person with loss in functional ability qualifies for any social benefits or other social or financial support from government or non-government sources.

**Give advice.** Acknowledge that caregiving can be extremely frustrating and stressful. It also may be complicated by feelings of bereavement over loss of the previous relationship between the older person and the caregiver, particularly if the caregiver is a spouse.

Encourage caregivers to respect the dignity of older people by involving them in decisions about their life and care as much as possible.

**Arrange respite care.** When caring has become too burdensome or tiring, can another person temporarily supervise and care for the older person? This could be another member of the family or household, or a trained social care worker, whether professional or volunteer. This respite care, such as day care, can relieve the main caregiver, who can then rest or carry out other activities. Day care is one type of community support service, which provides personal care (bathing, feeding, shaving, toileting), rehabilitation, recreational and social activity programmes, meals and transportation, several hours a day for a number of days a week. Day care also provides support services for caregivers such as home visits, family activities, support groups and training for caregivers. Respite from caregiving may help to keep the caring relationship healthy and sustainable, and periods away from the usual caregiver need not be harmful to the person receiving care.

**Offer psychological support.** Try to address the caregiver's psychological stress with support and problem-solving counselling, particularly when the care is complex and extensive and the strain on the caregiver is great.

### INNOVATIVE ASSISTIVE TECHNOLOGIES

Innovative assistive health technologies such as remote monitoring and assistive robots are promising means for enhancing the functional abilities of older people, for improving their quality of life as well as of their caregivers, for increasing choice, safety, independence and a sense of control, and for enabling ageing in place. The use of these technologies should be based on the needs and preferences of older people or their caregivers, and needs appropriate training for end-users. Careful attention should be given to developing a financing mechanism for research and development and to ensure equitable implementation.

**Examples of innovative assistive technologies:**

- Socially assistive robot PARO. This robotic pet seal provides companionship *(22). http://www.parorobots.com*
- Hybrid Assistive Limb (HAL) lumbar type. This gives caregivers the robotic muscles they need to lift and move patients from bed to chair to bath. *https://www.cyberdyne.jp/english/products/Lumbar_CareSupport.html*

# 12 DEVELOP A PERSONILIZED CARE PLAN

**KEY POINTS**

- Person-centred care is holistic, tailored care supported by collaborative relationships between health workers and older people, and the family and friends who support them.
- Multidisciplinary teams can help older people set their goals.
- Interventions supporting person-centred care should be agreed in light of the older person's prioritized needs and goals.
- Sustained, regular follow up is essential for achieving goals.

Personalized care planning is a humanistic approach that moves away from the traditional disease-oriented methods and instead focuses on older people's needs, values and preferences. Once expressed, a personalized care plan guides all aspects of health and social care and supports realistic person-centred goals.

## STEPS TO DEVELOP A PERSONALIZED CARE PLAN

**1. Review findings and discuss opportunities to improve functional ability, health and well-being**

With older people and their family members and/or caregivers (if appropriate), multidisciplinary teams will now review the results of the person-centred assessment and interventions proposed in the care pathways. The person-centred assessment will generate a list of proposed interventions that can be included in the care plan and discussed with the patient. The ICOPE app can assist the health worker on this process. Multidisciplinary teams may include everyone involved in the older person's care, such as primary care physicians, specialty physicians, nurses, community care workers, social care workers, therapists (physiotherapy, occupational, speech, psychological), paid and unpaid caregivers, pharmacists and volunteers.

**2. Person-centred goal setting**

Person-centred goal setting to identify, set and prioritize goals is a key element in developing a care plan. It is important for the multidisciplinary team to involve older people in the decision-making about their own care, and to understand and respect their needs, values, preferences and priorities. This can be a transformational shift in the way health professionals relate to their patients today.

The goals of the care can go beyond reducing the direct impact of medical conditions and be more focused on things that enable older people to do what they value most, such as to age independently and safely in place, to maintain their personal development, to be included and to contribute to their communities while retaining their autonomy and health. In addition to goals for the mid- to long term (six to 12 months), it is recommended to include short-term (three months) goals to leverage more immediate improvements or benefits to keep older people motivated and engaged.

**3. Agree on interventions**

The interventions proposed for inclusion in the care plan as a result of the person-centred assessment and pathways will need:

a) concurrence from the older person

b) to be in line with the older person's goals, needs, preferences and priorities

c) to accommodate their physical and social environments.

The health or social care worker should then have a discussion with the older person to agree on each intervention, one by one, that should remain in the final care plan.

**4. Finalize and share the care plan**

The health professional should now document in the care plan the results of the discussions, and share the document with the older person, their family members, caregivers and any others who might be involved in their care, with consent. The ICOPE mobile app can support this process by furnishing everyone involved with a summary of the care plan, which includes the priority goals and identified conditions.

**5. Monitoring and follow-up**

Monitoring with regular follow-up of the care plan's implementation is essential for achieving agreed goals. This allows the opportunity to monitor progress and enables early detection of difficulties in participating in interventions, adverse effects of interventions, and changes in functional status. It also helps to maintain a successful relationship between older people and their care providers. The follow-up process includes, but is not limited to:

- ensuring successful implementation, step by step, of the care plan;
- repeating the person-centred assessment and documenting any changes;
- summarizing outcomes, barriers and complications of the implementation of the health and social care interventions;
- identifying changes and new needs;
- agreeing on further addressing these changes and needs, including the adoption of new interventions when needed, and revising and improving the plan as needed; and
- repeating the cycle.

**DOMAINS OF FUNCTIONAL ABILITY**

1. To meet basic needs such as financial security, housing and personal security.
2. To learn, grow and make decisions, which include efforts to continue to learn and apply knowledge, engage in problem-solving, maintain personal development, and ability to make choices.
3. To be mobile, which is necessary for doing things around the house, accessing shops, services and facilities in the community, and participating in social, economical and cultural activities.
4. To build and maintain a broad range of relationships, including with children and other family members, informal social relationships with friends, neighbours, colleagues, as well as formal relationships with community care workers.
5. To contribute, which is closely associated with engagement in social and cultural activities, such as assisting friends and neighbours, mentoring peers and younger people, and caring for family members and the community.

# 12

## HOW TO UNDERTAKE PERSON-CENTRED GOAL SETTING

### IDENTIFY GOALS:

Identify goals with the older person, their family members and caregivers *(23)*:

- QUESTION 1
  ***Please explain the things that matter to you most in all parts of your life.***
- QUESTION 2
  ***What are some specific goals that you have in your life?***
- QUESTION 3
  ***What are some specific goals that you have for your health?***
- QUESTION 4
  ***Based on the list of both life and health goals we just discussed, can you pick three that you would like to focus on in the next three months? What about in the next six to 12 months?***

### SET GOALS:

Goals can be adapted to the older people's needs and their own definition of problems.

- QUESTION 5
  ***What specifically about goal one, two or three would you like to work on over the next three months? What about over the next six to 12 months?***
- QUESTION 6
  ***What are you currently doing about [goal area]?***
- QUESTION 7
  ***What would be an ideal yet possible target for you in achieving this goal?***

### PRIORITIZE GOALS:

Agreement on prioritized goals of care between older people and providers will demonstrate improved outcomes.

- QUESTION 8
  ***Of these goals, which one are you most willing to work on over the next three months – either by yourself or with support from [Dr XX and their team]? What about over the next six to 12 months?***

*Source:* adapted from original by Health Tapestry (http://healthtapestry.ca)

# 13 HOW HEALTH AND LONG-TERM CARE SYSTEMS CAN SUPPORT IMPLEMENTATION OF THE WHO ICOPE APPROACH

**KEY POINTS**

- Effective implementation of the ICOPE approach requires an integrated approach linking health and social care services.
- Optimizing the intrinsic capacities and functional abilities of older people begins in the community and with community-level workers. Systems in the health and social sectors should support care focused at the community level.
- Personalized care plans are at the heart of the ICOPE approach. To carry out and manage these plans, workers may need specific training in case management.

The WHO *World report on ageing and health* set a new direction for health and long-term care systems *(1)*. It called on these systems to focus on optimizing the intrinsic capacities of older adults with the goal of preserving and improving their functional abilities. The WHO *Guidelines on community-level interventions to manage declines in intrinsic capacity*, published in 2017, translate this new direction into a practical approach to assessment and care at the community level *(2)*. Together, they foster person-centred, integrated health and social care and support. This approach begins with a person-centred assessment of health and social care needs that a community-level worker can conduct.

This chapter highlights some key considerations for implementation of the ICOPE approach. The WHO ICOPE guidance for systems and services to implement the ICOPE approach will address implementation in detail (*https://apps.who.int/iris/handle/10665/325669)*

# 13

## 13.1 NATIONAL SUPPORT FOR IMPLEMENTATION

As a first step, both the WHO recommendations and this handbook will need to be adapted to the local context, culture and language as appropriate for care and health workers, caregivers and older people themselves. An inclusive process of adaptation can start to build broad support for the new approach.

Implementation of the ICOPE approach will require continuing collaboration at all levels and stages among stakeholders, including policy-makers, health professionals, social care workers, researchers, communities and older adults. Local knowledge will support the translation of global guidance into feasible and acceptable service configurations.

### KEY CONSIDERATIONS FOR NATIONAL IMPLEMENTATION

Planning to integrate the ICOPE approach into health and long-term care systems should ensure:

- **feasibility** – financial and organizational
- **sustainability** – efficiency and workforce capacity
- **coherence** – aligned with policies supporting healthy ageing
- **integration** – links between health and social care services.

Promoting healthy ageing requires the engagement of both the health and the social care sectors. Both sectors will be better able to adopt and apply the ICOPE approach when national policies support an integrated approach to health and social care. Policy should thus specify how the link between health care and social care will function at national, regional and community levels.

Incentives and rewards, financing mechanisms and performance monitoring can encourage the shift in priority to care for older people that optimizes intrinsic capacity and functional ability. Information systems should be oriented to monitoring this transformation at national and local levels.

## 13.2 BUDGETARY AND HUMAN RESOURCE REQUIREMENTS

The implications of implementing the ICOPE approach should be analysed to identify where additional investment will be needed – for example, in the training of health workers, the use of technologies and the adaptation of health information systems. In particular, community health and social care workers and primary care teams will need support to understand and apply the new approach. National and local professional societies can play an important role in this as part of a participatory process that involves all stakeholders.

# 13

## 13.3 INTEGRATION OF CARE AND SUPPORT ACROSS HEALTH AND SOCIAL SERVICES

All integrated care interventions should follow the principles of knowledge translation, which WHO defined in 2005 as "the synthesis, exchange and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and improving people's health". WHO's 2012 knowledge translation framework for ageing and health was developed specifically to apply these principles to care for older adults with multiple comorbidities and/or difficulties with access to health services *(24).*

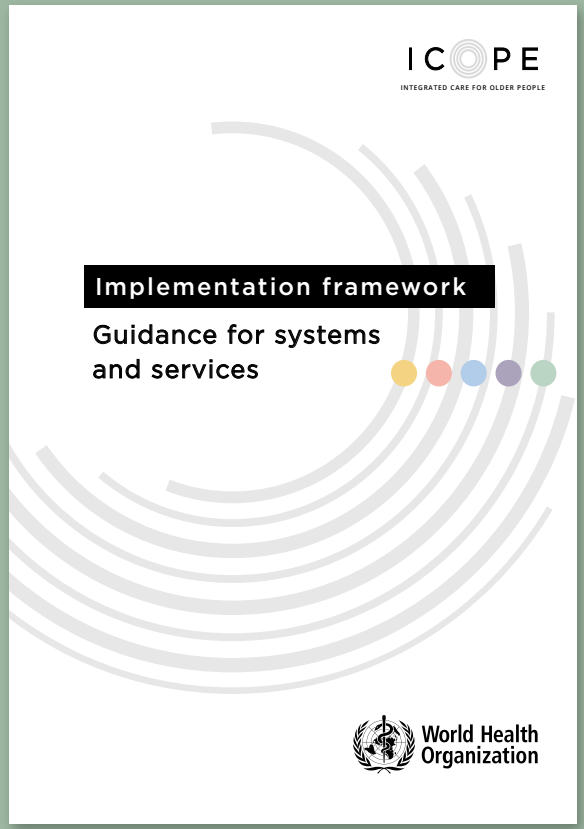
WHO's 2016 framework on integrated people-centred health services proposes key approaches to ensure high-quality integrated care *(6)*. An important element of integrated care is strong case management to support the design, coordination and monitoring of care plans, which are likely to span multiple domains of health and social care. Health and social care workers may need specific training in case management as well as in the clinical aspects of the ICOPE recommendations.

The WHO ICOPE implementation framework emphasizes the key actions at service and system levels for implementing ICOPE *(25).* The guidance covers the actions (page 84) that need to be taken by service and system managers to deliver integrated care. The framework recommends specific actions depending on the extent of existing health and social services.

## 13.4 ALIGNING LOCAL HEALTH AND SOCIAL CARE SERVICES TO SUPPORT IMPLEMENTATION

The ICOPE interventions should be implemented with a view to supporting ageing in place. That is, health and social care services should be provided so as to enable older people to live in their own home and community safely, independently and comfortably. The interventions are designed to be provided through models of care that prioritize primary and community-based care. This includes a focus on home-based interventions, community engagement and a fully integrated referral system.

This focus can be achieved only by recognizing and supporting the critical role that community workers play in increasing access to primary health care and universal health coverage. WHO guidelines on health policy and system support to optimize community-based health worker programmes make evidence-based suggestions and recommendations on the selection, training, core competencies, supervision and compensation of community health workers *(26).*




*https://apps.who.int/iris/handle/10665/325669*

# 13

## SUMMARY OF ACTIONS FROM THE ICOPE IMPLEMENTATION FRAMEWORK

### ACTIONS FOR SERVICES

- **Engage and empower people and communities.** Engage older people, their families and civil society in service delivery; support and train caregivers.
- **Support the coordination of services provided by multidisciplinary teams.** Identify older people in the community who need care, undertake comprehensive assessments and develop comprehensive care plans; establish networks of health and social care workers.
- **Orient services toward community-based care.** Deliver effective and acceptable care focused on functional ability through community-based workers and services backed by adequate infrastructure.

### ACTIONS FOR SYSTEMS

- **Strengthen governance and accountability systems.** Engage stakeholders in policy and service development; develop policy and regulation to support integrated care and responses to elder abuse; undertake continuous quality assurance and quality improvement; regularly review capacity to deliver care equitably.
- **Enable systems strengthening.** Develop workforce capacity, financing and human resources management; use technology to exchange information among service providers; collect and report data on intrinsic capacity and functional ability; use digital technologies to support self-management.

When specialized care is needed, a network of health workers at secondary and tertiary levels must support the work of community health workers. Clear referral criteria and pathways must be established through agreement among all parties at the operational level and then monitored for quality assurance. Arrangements for follow-up need to be clear to ensure that care plans remain suitable and that the provision of health care and support is effective. Follow-up and support can be especially important following major changes in health status or if the older person experiences a major life event such as change of residence or the death of a spouse or caregiver.

## 13.5 ENGAGEMENT OF COMMUNITIES AND SUPPORT TO CAREGIVERS

Care workers need the help of additional resources in the community. More active and direct involvement of communities and neighbourhoods in care and support for older people may need both local organizing and political will, particularly to encourage volunteering and to facilitate the contributions of older community members. Older people's clubs and associations are natural allies in this effort.

At the same time, the health-care system owes a responsibility to its partners in supporting healthy ageing – communities, community organizations and the family members and other unpaid caregivers of older people. This responsibility includes attention to the health and well-being of caregivers, as discussed in Chapter 11, and mutual support, collaboration and coordination with communities and community organizations to create a healthy environment for healthy ageing.

# REFERENCES


1. World report on ageing and health. Geneva: World Health Organization (WHO); 2015 (https://apps.who.int/iris/handle/10665/186463, accessed 2 April 2019).

2. Integrated care for older people: Guidelines on community-level interventions to manage declines in intrinsic capacity. Geneva: WHO; 2017 (http://apps.who.int/iris/handle/10665/258981, accessed 2 April 2019).

3. Department of Economic and Social Affairs. World Population Ageing 2017: Highlights. New York: United Nations; 2017 (http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017_Highlights.pdf, accessed 2 April 2019).

4. Sustainable Development Goals [website]. New York: United Nations; no date (https://sustainabledevelopment.un.org/sdgs, accessed 2 April 2019).

5. Global strategy and action plan on ageing and health. Geneva: WHO; 2017 (http://www.who.int/ageing/global-strategy, accessed 2 April 2019).

6. Framework on integrated, people-centred health services: report by the secretariat. Geneva: WHO; no date (A69/39; https://apps.who.int/iris/handle/10665/252698, accessed 2 April 2019).

7. Rebok GW, Ball K, Guey LT, Jones RN, Kim HY, King JW, et al. Ten-year effects of the advanced cognitive training for independent and vital elderly cognitive training trial on cognition and everyday functioning in older adults. J Am Geriatr Soc. 2014;62(1):16–24. doi: 10.1111/jgs.12607.

8. American Geriatrics Society 2015 Beers Criteria Update Expert Panel. American Geriatrics Society 2015 updated Beers criteria for potentially inappropriate medication use in older adults. J Am Geriatr Soc. 2015;63(11):2227–46. doi: 10.1111/jgs.13702.

9. painHEALTH. Pain management. East Perth: Department of Health, Western Australia; no date (https://painhealth.csse.uwa.edu.au/pain-management, accessed 1 May 2019).

10. Assistive devices and technologies. Geneva: WHO; no date (https://www.who.int/disabilities/technology, accessed 1 May 2019).

11. Texas Department of Aging and Disability Services. Instructions for completing the Nutrition Risk Assessment (NRA): DETERMINE Your Nutritional Health. Washington (DC): Nutrition Screening Initiative; 2010 (https://www.dads.state.tx.us/providers/AAA/Forms/standardized/NRA.pdf, accessed 2 April 2019).

12. Guigoz Y, Vellas B, Garry PJ. Assessing the nutritional status of the elderly: the mini nutritional assessment as part of the geriatric evaluation. Nutr Rev. 1996;54(1,part 2):S59–65. doi: 10.1111/j.1753-4887.1996.tb03793.x.

13. Camicelli AP, Keeffe JE, Martin K, Carbone J, Balding C, Taylor H. Vision screening for older people: the barriers and the solutions. Australas J Ageing. 2003;22(4):179–85.

14. Blindness and vision impairment Global strategy and action plan on ageing and health. Geneva: WHO; 2018 (https://www.who.int/en/news-room/fact-sheets/detail/blindness-and-visual-impairment, accessed 2 April 2019).

15. Acceptability, benefit and costs of early screening for hearing disability: a study of potential screening tests and models. Davis A, Smith P, Ferguson M, Stephens D, Gianopoulos I. Health Technology Assessment, 2007, 11(42).

16. Primary ear and hearing care training resource. Geneva: WHO; 2006 (https://apps.who.int/iris/handle/10665/43333, accessed 2 April 2019).

17. Li CM, Zhang X, Hoffman HJ, Cotch MF, Themann CL, Wilson MR. Hearing impairment associated with depression in us adults, national health and nutrition examination survey 2005-2010. JAMA Otolaryngol Head Neck Surg. 2014;140(4):293–302. doi: 10.1001/jamaoto.2014.42.

18. Zhang X, Bullard KM, Cotch MF, Wilson MR, Rovner BW, McGwin G Jr, et al. Association between depression and functional vision loss in persons 20 years of age or older in the United States, NHANES 2005–2008. JAMA Ophthalmol. 2013;131(5):573–81. doi: 10.1001/jamaophthalmol.2013.2597.

19. Spotting the signs of harm, abuse and neglect Scotland. Streatham: Action on Elder Abuse; no date (https://www.elderabuse.org.uk/spotting-the-signs-of-harm-abuse-and-neglect, accessed 2 April 2019).

20. Yon Y, Mikton CR, Gassoumis ZD, Wilber KH. Elder abuse prevalence in community settings: a systematic review and meta-analysis. Lancet Glob Health. 2017;5(2):e147-e156. doi: 10.1016/S2214-109X(17)30006-2.

21. Douglas SL, Daly BJ, Kelley CG, O'Toole E, Montenegro H. Impact of a disease management program upon caregivers of chronically critically ill patients. Chest. 2005;128(6):3925–36. doi: 10.1378/chest.128.6.3925.

22. Liang A, Piroth I, Robinson H, MacDonald B, Fisher M, Nater UM, et al. A pilot randomized trial of a companion robot for people with dementia living in the community. J Am Med Dir Assoc. 2017;18(10):871–8. doi: 10.1016/j.jamda.2017.05.019.

23. Javadi D, Lamarche L, Avilla E, Siddiqui R, Gaber J, Bhamani M, et al. Feasibility study of goal setting discussions between older adults and volunteers facilitated by an eHealth application: development of the Health TAPESTRY approach. Pilot Feasibility Stud. 2018;4:184. doi: 10.1186/s40814-018-0377-2.

24. Knowledge translation. Geneva: WHO; no date (https://www.who.int/ageing/projects/knowledge_translation, accessed 2 April 2019).

25. Integrated care for older people: Guidance for systems and services. Geneva: WHO; 2019 (https://apps.who.int/iris/handle/10665/325669, accessed June 2019).

26. Community-based health workers (CHWs). Geneva: WHO; no date (https://www.who.int/hrh/community, accessed 2 April 2019).

www.who.int/ageing/health-systems/icope

Department of Ageing and Life Course
World Health Organization
Avenue Appia 20
1211 Geneva 27
Switzerland

ageing@who.int

World Health Organization