

A grayscale microscopic image of neurons. A central neuron is in focus, with several long, thin axons extending outwards. Some of these axons are glowing with a bright white light, suggesting active synaptic transmission. The background is dark, with other neurons visible as faint, star-like shapes.

NATIONAL STRATEGY

**Management of Alzheimer and Other Dementia Diseases:
Towards Healthy and Productive Older Persons**

**Ministry of Health
Republic of Indonesia**



PREFACE



The National Strategy for the Management of Alzheimer and Other Dementia Diseases: Towards Healthy and Productive Older Persons has successfully been developed as planned. The most delightful experience in the development process of this strategy is the involvement of various programs and sectors since the beginning of the process. This involvement is very valuable due to the fact that, in addition to giving a strategic dimension to this National Strategy, the discussion on the issues has become a discussion on “*cross-cutting issues*”.

We should also be grateful that in the middle term planning, which is in the National Middle Term Development Plan (RPJMN) 2015 – 2019, the issue on older persons has been included as one of the priority issues. The success in health development will lead to increased Life Expectance (LE) along with all its consequences that should really be understood as a form of the logical consequences, which needs to get attention in framework of Health Development through Life course approach.

Substantively, this National Strategy document is developed by referring to the “Yogyakarta Declaration for Older Persons”, in which the explanation on the concrete efforts consists of 7 (seven) strategies that are further elaborated in the main activities related to the distribution of roles for each related sector. It is our hope that this document becomes more operational and will touch various system elements that are rolled out in synergy to deal with the existing problems.

This National Strategy for the Management of Alzheimer and other Dementia Diseases: Towards Healthy and Productive Older Persons consists of eight chapters that include, in addition to the general strategies and component strategies, the roles of the related sectors, coordination between components, international partnership, indicators to monitor the progress of the program, monitoring and evaluation, and funding.

Our highest appreciation and gratitude are extended to all parties that have contributed in the development of this National Strategy for the Management of Alzheimer and other Dementia Diseases: Towards Healthy and Productive Older Persons, including various sectors, Academic Institutions, Research Institutions, Community Social Organizations who work on older persons issues, especially dementia, as well as related private sectors. Recommendations and inputs for improving this document are very much expected to refine this document.

Jakarta, August 2015

Secretary General



A handwritten signature in blue ink, appearing to read 'Untung', is written over the seal and extends to the right.

Dr. Untung Suseno Sutarjo, M.Kes



**MINISTER OF HEALTH
REPUBLIC OF INDONESIA**

FOREWORD FROM THE MINISTER OF HEALTH OF THE REPUBLIC OF INDONESIA



The elaboration of sustainable Health Development has been made through various efforts, including improving health through life course approach which encompasses efforts to achieve healthy and productive older persons. Currently, the Indonesian People have entered the gate of a longer Life Expectancy. This should be seen gratefully as a long journey of the Health Development that we have work on together.

As a country that is designated as the 4th country with the largest population and the 10th country with the highest number of older persons in the world, it is already expected that strategic efforts to prepare, prevent, and manage potential problems related to this situation are implemented.

In a period of 10 years, the Life Expectancy has increased from 68.1 in 2005 to 72.7 in 2014 (RPJMN, 2009). The logical consequences faced, in addition to non-communicable disease and degenerative diseases, include

cognitive disorders such as dementia and intelligence disability. These conditions need to get careful attention from all parties in the framework of achieving healthy, smart, and productive Indonesians until they enter their elderly period.

The careful attention towards older persons to make them healthy, smart, and productive can be achieved through various synergic efforts of various sectors where each stakeholder can play the most feasible role. To establish a strong common steps, a framework in the form of a “National Strategy for the Management of Alzheimer and other Dementia Diseases: Towards Healthy and Productive Older Persons” is needed to be able to describe integrated and effective steps to reduce the incidence of dementia and other cognitive disorders.

It is expected that with the availability of this National Strategy, the implementation of the management of Alzheimer and other dementia diseases: towards healthy and productive older persons will be better and stronger which will lead to improved health status of the people of Indonesia.

Jakarta, August 2015

Minister of Health



Prof. Dr. dr. Nila Farid Moeloek, Sp.M(K)

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Introduction

The National Strategy for the Management of Alzheimer and Other Dementia Diseases: Towards Healthy and Productive Older Persons has been formulated to respond to the increased awareness of policy makers on older persons health at the national, regional and global levels. In 2012, the theme of the World Health Day was on Ageing and Health and the Yogyakarta Declaration on Ageing and Health by the Health Ministers of countries in South- East Asia Region in the same year has emphasized that older persons are social assets who have active and constructive contributions in the national development of their respective countries.

However, increasing Life Expectancy and the magnitude of health problems in each age group of the life course (Risksedas, 2013) will have consequences on increased dementia and other cognitive disorders in the future, If this situation is not handle properly, it will lead to impacts on the economic, social, and political life of the nation. To deal with this issue, accelerated efforts through a national strategy and cross-sector and cross-program action steps involving active community participation are needed.

Objective

The objective of this guide is to achieve efforts for managing Alzheimer and other dementia diseases towards healthy and productive older persons.

To achieve this objective, the strategies applied are:

1. Mainstreaming the efforts to achieve healthy brains towards productive older persons through the life course approach in

all levels of the national development

2. Improve quality of the services for cognitive disorders and dementia
3. Strengthening the managerial capacity in achieving optimum brain health

Seven Action Steps

1. Campaign on Public Awareness and Promotion of Healthy Lifestyle
2. Advocacy on human rights for people with dementia and their caregivers
3. Ensuring access and information of quality services
4. Implementation of early detection, diagnosis and holistic management of cognitive disorders and dementia
5. Establishment of a professional and sustainable system for strengthening human resource
6. Establishment of a cognitive health program as the main factor in achieving a smart life in the nation based on the life course approach
7. Implementation and application of research on cognition and dementia

Conclusion

The National Strategy for the Management of Alzheimer and other Dementia Disorders: Towards Healthy and Productive Older Persons is expected to position older person issues as a priority in the National Development to achieve a higher quality of Indonesian human resource.

1

INTRODUCTION

A. BACKGROUND

Indonesia as a developing country with the fourth largest population size in the world has put efforts to align its existence with other countries in the world. The development efforts performed by Indonesia aim to realize the 1945 Constitution mandates, which is to achieve excellent Indonesian human resource in its entirety. To achieve this, health development is the main pillar in providing human resource by implementing Law Number 36 of 2009 article 1 subarticle 1 on Health that stated: "Everyone has the right for health".

Human resource development that is based on health is a basic need that should be included in each National Development Plan to build a healthy and smart community. The development of this health-based human resource is performed according to the life course and each stage in life carries its own specific health issues.

Ageing and increased prevalence of non-communicable diseases are the main factor that causes reduced cognitive functions that will eventually increase the number of Alzheimer and other dementia diseases in elderly group. Reduced cognitive functions lead to reduced daily social activities among older persons that will create problems in public health and increased in family, community, and government spending.

In Indonesia, the number of People with Dementia (PwD) is expected to be increasing from 960,000 in 2013 to 1,890,000 in 2030 and is estimated to reach 3,980,000 in 2050 (World Report Alzheimer, 2012). Hence, a careful attention is needed to prevent and manage the PwD, including efforts to maintain the healthy state of the brain. Optimum brain health can be achieved if efforts have been performed since pregnancy and during infancy, toddler, adult, and elderly periods.

Unhealthy and non-productive brain in older persons will not only create health and social problems but also will become an economic burden. The financial burden that has to be carried by people with dementia in countries with middle up income is estimated to be US\$ 32.5 Billions or 325 Trillion rupiahs per year (*World Report Alzheimer*, 2012).

Prevention of dementia can be performed by controlling degenerative diseases such as Diabetes mellitus, due to the fact that 54.6% people with DM Type 2 has experienced decreased cognitive functions in the form of Non-Dementia Cognitive Disorders (NDCD). The prevalence of Dementia in DM group is 6.8% while in groups without DM the same prevalence is only 1.2%. Overall, the prevalence of Dementia in Jabotabek is 3.5% (MWS Nasrun, dissertation of UI 2007). Meanwhile, a study in 3 areas including Borobudur, Sumedang, and Jakarta has revealed 38.9% of decreased cognitive functions in elderly above 60 years old with healthy lifestyle and brain stimulus as protective factors (Hogervorst, et al. 2009).

The efforts to prevent and manage people with non-dementia and dementia disorders need collaborations between the government, private sector, and development partners as well as other stakeholders. To coordinate these collaborations towards

an integrated and harmonious collaboration, a National Strategy for Management of Alzheimer and other Dementia Disorders: Towards Healthy and Productive Older Persons is needed. This national strategy is a reference for implementing comprehensive, integrated, and efficient health efforts that aim to reduce the incidence of Alzheimer and other dementia diseases using the life course approach.

B. VISION, MISSION, OBJECTIVES, AND STRATEGY

VISION

To achieve healthy and productive older persons

MISSIONS

- To coordinate cognitive issue and dementia control
- To promote healthy brain towards productive older persons
- To manage cognitive disorders in order to prevent dementia in older age

GENERAL OBJECTIVE

To achieve the management of Alzheimer and other dementia disorders: towards health and productive older persons

SPECIFIC OBJECTIVES

- a. To implement coordination on management of cognitive and dementia issues
- b. To implement healthy brain towards productive older persons promotion
- c. To implement management of cognitive disorders to prevent dementia

STRATEGIES

1. Mainstreaming of efforts to achieve the healthy brain towards productive older persons using life course approach in every level of the national development.
2. Quality improvement of services for intelligence and dementia disorders.
3. Strengthening managerial capability to achieve optimum healthy brain.

C. SCOPE

In this national strategy document, the followings are described:

1. Overview of intelligence health situation (especially for Alzheimer and cognitive disorders due to other brain diseases).
2. Health situation analysis in each stage of life as a factor that affects healthy brain in older persons.
3. Concepts and efforts to achieve healthy and productive brain in older persons.
4. Strategies for managing Alzheimer and other dementia diseases as well as steps to attain older persons with healthy and productive brain.
5. Vertical and horizontal coordination among programs and sectors as well as community empowerment.

D. LEGAL FRAMEWORK AND SUPPORTING LEGISLATIONS:

1. 1945 Constitution;
2. Law No. 13 of 1998 on Elderly Welfare;
3. Law No. 32 of 2004 on Local Government;
4. Law No. 36 of 2009 on Health;

5. Law No. 52 of 2009 on Population and Family Development;
6. Regulation of the Minister of Health Number 1144/Menkes/Per/VIII/2010 on Organization and Work Procedures of the Ministry of Health
7. Regulation of the Minister of Home Affairs Number 6 of 2007 on Technical Instruction on Formulation and Determination of Minimum Service Standards
8. Regulation of the Minister of Home Affairs number 60 of 2008 on Guideline for Establishing Local Commission for Elderly and Community Empowerment in Elderly Management at Local Level
9. Decree of the Minister of Health Number 922/Menkes/SK/X/2008 on Distribution of Government Health Affairs between the Provincial and District or City Government
10. Decree of the Minister of Health Number 263/Menkes/SK/II/2010 on Cognitive Rehabilitation Guideline
11. Decree of the Minister of Health Number 264/Menkes/SK/II/2010 on Guideline on Management of Intelligence Issues due to Degenerative Disorders

2

SITUATION ANALYSIS: OVERVIEW ON ELDERLY INTELLIGENCE HEALTH IN INDONESIA

Indonesia will experience elderly explosion. In a period of 10 years, it is estimated that there will be an increase of life expectancy from 68.6 years old to 72.7 years old in 2014. The increase in LE will be followed by increasing number of elderly, starting from 23.9 millions (9.77%) in 2010 and is estimated to achieve 28.8 millions (11.34%) in 2020. Based on the projection for 2010-2035, the number of people in the age group of 0-14 years and 15-49 years will decrease while the number of people in elderly group (50-64 years old and 65+) will continue to increase.

In 2020 -2025, Indonesia will experience demographic bonus where 100 working people will provide 44 dependents. This demographic bonus will create impacts on income, both per capita and national income. The role of healthy and productive older people will greatly contribute to the condition. This is supported by the data from the period of 2005 – 2012 where most older persons (around 90%) still play important roles in the household vicinity and have a status of the Head of Household. Based on the results of the National Manpower Survey (*Sakernas*) 2011, almost half of the older people (45.41%) still do their work as their main activity.

However, with the increase in LE and the number of elderly, there is also an increase in various brain degenerative diseases that reduce the cognitive functions and productivity of elderly. Reduced cognitive functions will also lead to a decrease in daily activities if not controlled and will create additional social burden that has to be carried by the family, community, and government.

The main cause of reduced cognitive functions among older persons is Alzheimer disease and other dementia diseases. Data from the *World Alzheimer's Report 2013* predict that the number of dependent elderly will increase from 101 millions to 277 millions in 2050, an almost three-fold increase. Almost half of them will live with Alzheimer disease or other dementia diseases that will rapidly become global health crisis. In Indonesia, specifically, it is estimated that there are around 1 million people suffering from Alzheimer while the proportion of elderly with reduced cognitive functions in three areas of Indonesia (DKI Jakarta, West Java, and Central Java) is 38.9% and around 4% experience dementia [Hogervorst et al., 2009]. In addition another study on prevention of dementia stated that one of the ways to prevent dementia is by controlling degenerative diseases such as Diabetes mellitus since 54.6% of DM type 2 patients have experienced reduced cognitive functions of Non-Dementia Cognitive Disorders. The prevalence of Dementia in DM group is 6.8% while the same prevalence in non-DM group is only 1.2%. Overall, the prevalence of Dementia in Jabotabek area is 3.5% (MWS Nasrun, dissertation of the University of Indonesia, 2007).

Data from Riskesdas (Basic Health Survey, BHS) 2010 also present **Burden of Diseases** (BOD) presentation as the risk factor for diseases/disorders that, directly and indirectly, cause reduced cognitive functions such as: *maternal disorder, neonatal disorder, nutritional deficiencies, transports injuries, mental & behavioral, infections* (HIV AIDS, diarrhea), with hypertension, stroke, and diabetes mellitus as the most frequent diseases (Riskesdas, 2013). Under-nutrition during the 1,000 days of life will affect the very rapid development of the brain and will very much affect the appearance of cognitive disorders in the future. Data from Riskerdas 2010 describe the prevalence of poor and malnutrition of 17.9%, stunting and severe stunting of 35.6%, thin and extremely thin of 13.3%. The prevalence of stunting and severe stunting in teenagers is 31.2% and the prevalence of thin and extremely teen is 8.9%. In the age

group of 19 to 64 years old, the tendency of poor nutrition ranges from 30% to 50%.

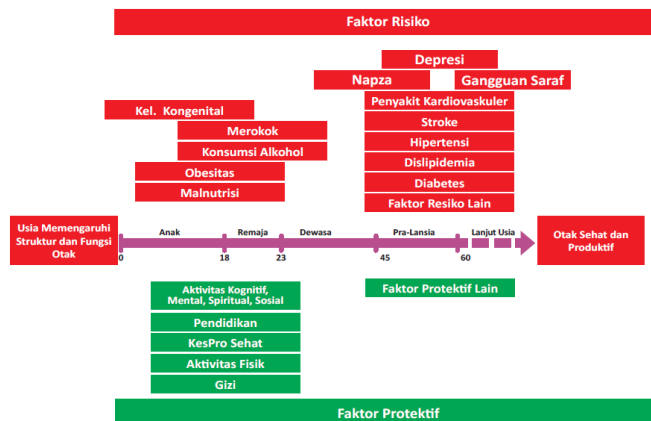
The data above show that the number of elderly keeps increasing and this group can become the national asset if they are healthy and productive. However, older persons who are not healthy and not independent will create a tremendous impact towards the socioeconomic condition of the nation. Hence, it is important to have a national strategy to control Alzheimer and other dementia diseases that are one of the causes that lead to unhealthy and non-productive elderly. This national strategy to control Alzheimer and other dementia diseases should pay attention to various conditions and risk factors in each stage along the life course, where all individuals are expected to be able to maintain their health starting from the reproductive process, avoiding potential environmental pollution, increasing balanced nutrition intake, and stimulation in the form of education to improve the intelligence health. To achieve this, a mutual commitment between families, community, government, and business world is needed.

3

TOWARDS HEALTHY BRAIN IN OLDER PERSONS

A. LIFE COURSE CONCEPT TOWARDS HEALTHY AND PRODUCTIVE BRAIN

Healthy and productive brain will be achieved through optimum health since pregnancy, infancy, childhood, adolescent, adulthood, pre-elderly, and elderly. This condition will be influenced by the presence of congenital disorders, genetic factors, smoking behavior and alcohol consumption, poor nutrition, and various diseases such as non-communicable diseases, communicable diseases, metabolic diseases, vascular diseases, and neuro disorders. These can be prevented through balanced nutrition as well as cognitive, sociocultural, education, and physical activities plus good reproductive health. Furthermore, other stimulus is needed to increase the function of the brain (see figure 2.1).



Sources : Risesdas 2010 & 2013, Mangialasche, Kivipelto et al 2012, CAS UI 2013, processed by the Center for Intelligence Health of the Indonesian Ministry of Health

Legend: *Faktor risiko* = risk factors, *depresi* = depression, *Napza* = Narcotics and substances, *Gangguan saraf* = neuro disorders, *penyakit kardiovaskuler* = cardiovascular disease, *hipertensi* = hypertension, *dislipidemia* = dyslipidemia, *faktor risiko lain* = other risk factors, *kel. Kongenital* = congenital disorders, *merokok* = smoking, *alcohol consumption* = konsumsi alkohol, *obesitas* = obesity, *malnutrisi* = malnutrition, *usia memengaruhi struktur dan fungsi otak* = age affects the structure and function of the brain, *anak* = childhood, *remaja* = adolescent, *dewasa* = adulthood, *pra-lansia* = pre-elderly, *lanjut usia* = elderly, *aktivitas kognitif, mental, spiritual, sosial* = cognitive, mental, spiritual, social activities, *pendidikan* = education, *KesPro Sehat*

sehat = healthy reproductive health, *aktivitas fisik* = physical activity, *gizi* = nutrition, *faktor protektif* = protektif faktor

Figure 2.1. Protective and Risk Factors of Healthy and Productive Brain

B. LOGICAL FRAMEWORK FOR HEALTHY BRAIN

A Healthy Brain is a condition where the cognitive and non-cognitive functions are well maintained that they can make independent decisions. The efforts to achieve a healthy and productive brain include balanced nutrition intake and physical, cognitive, spiritual, and social stimulations with the support of adequate environment. To achieve healthy brain in older persons, various efforts are needed (figure 2.2)

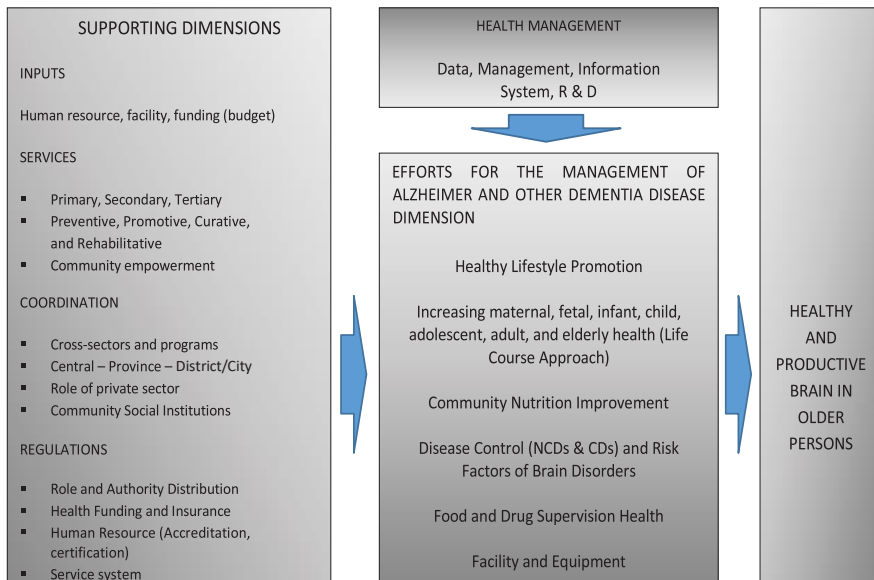


Figure 2.2. Logical Framework towards Healthy and Productive Brain in Older Persons

C. EFFORTS TO ACHIEVE HEALTHY AND PRODUCTIVE BRAIN IN OLDER PERSONS

To achieve healthy and productive brain in older persons, continuous health efforts in each stage of the life course are needed. Various efforts to improve maternal, fetal, infant, child,

adolescent, adult, pre-elderly, and elderly health will affect the brain health in older persons. Increased community nutrition really influences fetal health that will lead to healthy and productive brain in older persons (*Buku Gaya Hidup Otak Sehat (Brain Healthy Life Style)*, Center of Intelligence Health 2013). Fetus is not only influenced by nutrition but also needs brain stimulation, as stated in the Guideline for Brain Stimulation and Brain Booster Nutrition for Fetus through Pregnant Women (*Brain Booster*, Center for Intelligence Health 2009). Food with preservatives, high salt content, high fat content, and high sugar content as well as smoking habit and diseases such as hypertension and diabetes mellitus are factors that can affect the brain health and may cause dementia (see figure 2.1).

Changes in lifestyle need a long term control and availability of effective and inexpensive medicines as well as adequate health facility and equipment.

Controlling various risk factors can reduce the risk for dementia in the future. Routine brain health check is important, especially for individuals with dementia risk. Brain health check can be performed in primary and secondary health care facilities in a holistic manner, such as using ABCDE screening (**A : Activity daily living, B : Balance, C : Cognitive, D : Disease and Risk Factor, E : Emotions**) (Guideline for Management of Intelligence Health Issues due to Degenerative Disorders, Center for Intelligence Health 2010). By assessing daily activities, balance, cognitive, risk factors, and mental-emotional state, the presence of intelligence disorders can be detected as early as possible to enable integrated cross-program and cross-sector efforts.

4

SEVEN ACTION STEPS TO MANAGE ALZHEIMER AND OTHER DEMENTIA DISEASES: TOWARDS HEALTHY AND PRODUCTIVE OLDER PERSONS

To manage (promotive, preventive, and curative) Alzheimer and other dementia diseases: towards healthy and productive older persons, action steps need to be formulated by paying attention to the religious and cultural values as well as community norms.

FIRST: CAMPAIGN ON PUBLIC AWARENESS AND PROMOTION OF HEALTHY LIFESTYLE

To increase community awareness that dementia (“senile”) is not a part of normal ageing process, various efforts and brain healthy lifestyle for life are needed. These include physical, mental, and social activities as well as balanced nutrition. These efforts should be applied consistently and continuously.

SECOND: ADVOCACY ON HUMAN RIGHTS FOR PEOPLE WITH DEMENTIA (“SENILE”) AND THEIR CAREGIVERS

Increased awareness among stakeholders and community members that dementia is a problem that will create a broad impact on life is needed to increase the quality of life of the PwDs and their caregivers.

THIRD: ENSURING ACCESS AND INFORMATION OF QUALITY SERVICES

Efforts are performed to increase access and information on multi-disciplinary and comprehensive quality services that can be accessed by PwDs and their caregivers.

FOURTH: EARLY DETECTION, DIAGNOSIS, AND HOLISTIC MANAGEMENT OF COGNITIVE DISORDERS AND DEMENTIA

Efforts to increase quality of services that include early detection, diagnosis, and holistic management in primary and secondary health care facilities. In the case where long-term care is needed, homecare and community-based care will be prioritized.

FIFTH: ESTABLISHMENT OF PROFESSIONAL AND SUSTAINABLE SYSTEM FOR STRENGTHENING HUMAN RESOURCE

Efforts to increase specific knowledge and skills for all health care workers and non-health care workers through education and training programs in all care levels (with an emphasize on the primary care).

SIXTH: ESTABLISHMENT OF A COGNITIVE HEALTH PROGRAM AS THE MAIN FACTOR IN ACHIEVING A SMART LIFE IN THE NATION BASED ON THE LIFE COURSE APPROACH

Efforts to achieve healthy and productive brain as a part of an integrated strategic plan by paying attention to the conditions and risk factors of each stage of life.

SEVENTH: IMPLEMENTATION AND APPLICATION OF RESEARCH ON COGNITION AND DEMENTIA

Efforts are performed to increase the quality of cognitive and dementia management through various research at the national level (basic, clinical, epidemiological, and social research).

5

STRENGTHENING COORDINATION AMONG COMPONENTS

A. Optimizing the Roles of Stakeholders

Government needs to encourage various potential efforts in promoting healthy and productive older persons, management of cognitive disorders in older persons, and the implementation of coordination in PwD care through Inter-generation Empowerment and Economic Empowerment approach. The efforts to achieve this goal require coordination among stakeholders that include: the National Commission for Elderly (Komnas Lansia), government (through the coordination of the coordinating ministry of people's welfare), and community involvement to produce and implement cross-sector and cross-program activities. The concept to synergize various efforts between sector institutions, between actors in various levels, and between types of activities that are adapted to the characteristics of empowerment level and dignity level related to independence of the community by developing local resource potentials is described (figure 5.1). This concept can be implemented at the local level by involving the Local Commission for Elderly and all other elements under the local government.

Cross-sectoral and -Program Coordination

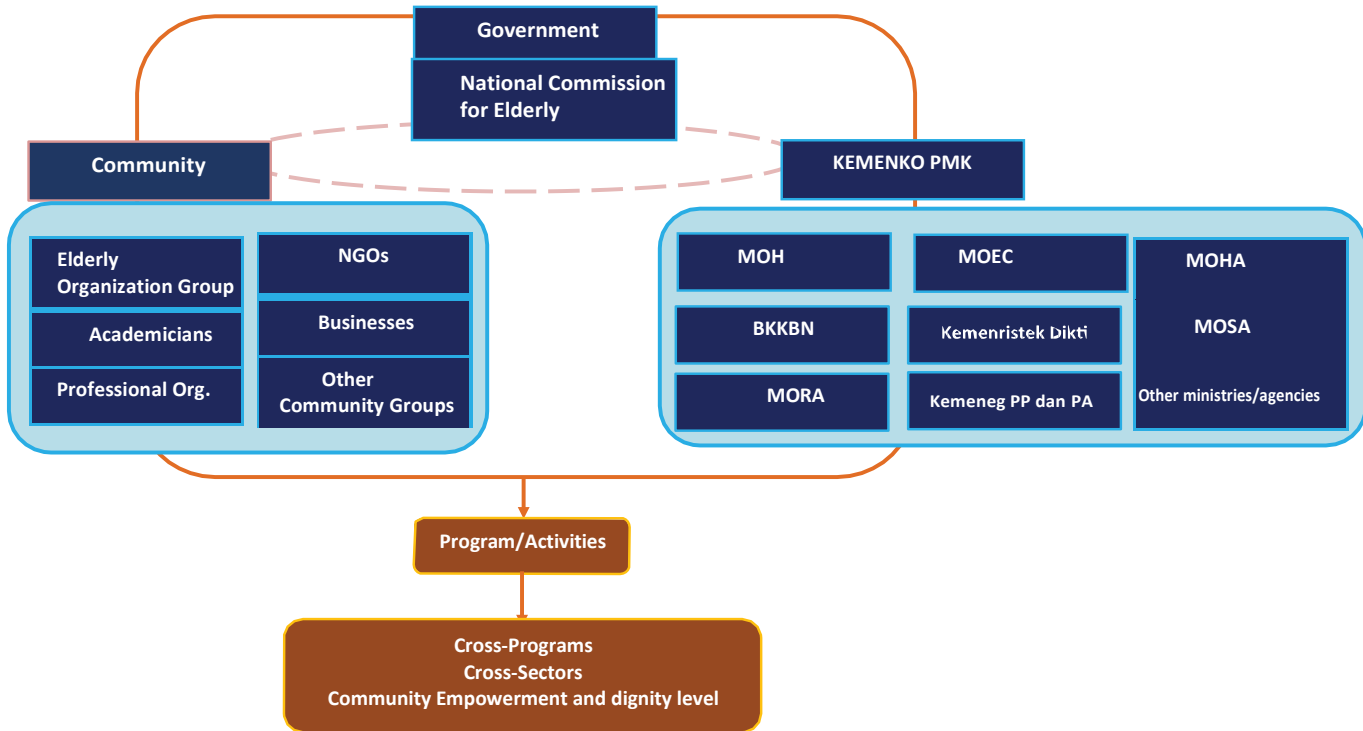


Figure 5.1. Cross-Sector and -Program Coordination in achieving healthy and productive older persons

Attention should be given to the followings to optimize the role of the stakeholders:

1. Internalization of comprehension and commitment towards various efforts to manage Alzheimer and other dementia disease to achieve healthy and productive older persons.
2. Control over programs related to various efforts in the management of Alzheimer and other dementia diseases to achieve healthy and productive older persons.
3. Increased role and involvement of the House of Representatives (DPR) and Provincial/District/City House of Representatives (DPRD) in supporting the implementation of the said programs/activities.
4. Integration of programs/activities into planning and budgeting documents at the national and local levels.
5. Local capacity building to support efforts in the management of cognitive disorders in elderly through advocacy to refine local regulations that include institution, human resource, and local budget. In addition, interconnectivity between areas in managing elderly should be established.
6. Efforts to achieve healthy and productive older persons are implemented in an integrated manner through the Community Empowerment by putting forward transparency, participation, and accountability principles and by paying attention to the religious and cultural values/community norms and local wisdom.

B. International Collaboration

Pursuant to the international agreement, internal collaboration needs to be established towards active involvement in supporting elderly health programs and elderly rights in each respective country. Indonesia has been actively involved as a part of international agencies and community that work together in developing programs for elderly health and elderly rights.

Globally, active collaboration in elderly issues includes:

1. Development of equipment/instruments in the form of grants and technology transfer
2. Development of technical collaboration in the form of consultant and expert sharing, which includes technology, knowledge, and information transfers.
3. Advocacy to international agencies to get legal status.
4. Research that includes basic and operational research

By using the National Strategy for the Management of Alzheimer and Other Dementia Diseases: Towards Healthy and Productive Older Persons, the collaboration with the international agencies working in elderly field can be performed in a more planned, directed, and coordinated manner.

6

ACTIVITY IMPLEMENTATION, INDICATORS, AND MONITORING OF THE SUCCESS OF THE PROGRAM

FIRST ACTION STEP: CAMPAIGN ON PUBLIC AWARENESS AND PROMOTION OF HEALTHY LIFESTYLE

Activity	Achievement Indicator	Related Institution/ Stakeholder
1. Strengthen the existing programs and creating new programs to promote healthy and productive older persons, risk factors, and protective factors, including healthy lifestyle	1.1 Routine coordination meeting among sectors and program 1.2 The Towards Healthy and Productive Older Persons program is socialized	Ministry of home affairs and all related stakeholders
2. Intensify healthy and productive older persons campaign	2.1 Routine stakeholder and media meetings to educate the media and disseminate information on related programs are performed 2.2 Routine healthy and productive	Ministry of health and all related stakeholders

Activity	Achievement Indicator	Related Institution/ Stakeholder
	older persons campaign is performed by mass media	
3. Strengthen education program on elderly in a. Schools, b. Families, c. Community d. Occupational health	3.a.1 IEC on education towards healthy and productive older persons 3.b.1 IEC on healthy and productive older persons lifestyle 3.b.2 Dissemination on dementia 3.c.1 IEC on elderly health, creating pollution-free environment, balanced nutrition, and stimulation 3.c.2 Dissemination on dementia 4.1 Availability of guidelines and ToT on education of identification of dementia, care plan, and financial plan for caregivers and families and PwD in the beginning.	Ministry of health Ministry of health BKKBN
4. Promote	4.1 Establishment of	Related

Activity	Achievement Indicator	Related Institution/ Stakeholder
cognitive health using coordinated training model at the national level	<p>cognitive health training center and PwD management at the national level</p> <p>4.2 Availability of guidelines on efforts towards healthy brain and early detection, handling, and management of PwDs.</p> <p>4.3 Implementation of TOT on efforts towards healthy brain and early detection, handling, and management of PwDs by Provincial health offices</p>	stakeholders

SECOND ACTION STEP: ADVOCACY ON HUMAN RIGHTS FOR PEOPLE WITH DEMENTIA AND THEIR CAREGIVERS

Activity	Achievement Indicator	Related Institution/ Stakeholder
1. Strengthen policies on elderly at the national and local level through laws and lower	<p>1.1 Routine coordination meetings are performed among sectors and program</p> <p>1.2 The Towards</p>	<p>Ministry of home affairs (Leader)</p> <p>Ministry of Health</p> <p>Ministry of Social Affairs</p> <p>Coordinating Ministry for People's</p>

Activity	Achievement Indicator	Related Institution/ Stakeholder
level regulations that are based on the laws	Healthy and Productive Older Persons program is socialized	Welfare BKKBN
2. Perform education and monitoring on mis-management of PwD and related supports	2.1 Establishment of support groups and routine caregiver meetings in each area 2.2 Establishment of a referral system for PwD that cannot be managed at the primary care level	Ministry of home affairs (Leader) Ministry of Health Ministry of Social Affairs Coordinating Ministry for People's Welfare BKKBN

THIRD ACTION STEP: ENSURING ACCESS AND INFORMATION OF QUALITY SERVICES

Activity	Achievement Indicator	Related Institution/ Stakeholder
1. Develop access to information on elderly services with standardized minimum equipment	1. Availability of links to websites on Alzheimer and other dementia diseases 2. Utilization of existing communication device for sharing information to the local level	Ministry of home affairs (Leader) Ministry of Health Ministry of Social Affairs Coordinating Ministry for People's Welfare BKKBN
2. Increase the use of SOPs related to elderly	2.1 All health facilities have used the SOPs for elderly services 2.2 All service facilities	Ministry of home affairs (Leader) Ministry of Health Ministry of Social

Activity	Achievement Indicator	Related Institution/ Stakeholder
services by professionals	have trained human resources with equipment available according to the SOPs	Affairs Coordinating Ministry for People's Welfare BKKBN

FOURTH ACTION STEP: EARLY DETECTION, DIAGNOSIS, AND HOLISTIC MANAGEMENT OF COGNITIVE DISORDERS AND DEMENTIA

Activity	Achievement Indicator	Related Institution/ Stakeholder
1. Perform early detection of cognitive disorders and dementia diagnosis in elderly, pre-elderly, and in all individuals with risk factors	<p>1.1 Availability of standardized instruments for cognitive disorder screening and dementia diagnosis in elderly, pre-elderly, and all individuals with risk factors</p> <p>1.2 Increased proportion of elderly that has been detected for Alzheimer and other dementia diseases as well as the risk factors.</p> <p>1.3 All primary health care facilities are able to do screening, diagnosis, management</p>	Ministry of Health Ministry of home affairs Ministry of Social Affairs (according to the ability in each level)

Activity	Achievement Indicator	Related Institution/ Stakeholder
	<p>(including counseling), and referral</p> <p>1.4 All referral health care facilities have integrated geriatric services</p> <p>1.5 All referral health care facilities have the facilities for neuro-restoration services</p> <p>1.6 Increased number and quality of daycare</p> <p>1.7 Increased number and quality of homecare</p> <p>1.8 PwD referral system is established</p> <p>1.9 Increased proportion of older persons with physical or cognitive function limitations that can still be involved in physical, social, and spiritual activities</p>	
<p>2. Develop intervention materials for PwD care and monitoring</p>	<p>2.1 Availability of PwD care guideline</p> <p>2.2 Training for caregivers who take care of PwD</p>	<p>Ministry of Health Ministry of Social Affairs BKKBN</p>

FIFTH ACTION STEP: ESTABLISHMENT OF PROFESSIONAL AND SUSTAINABLE SYSTEM FOR STRENGTHENING HUMAN RESOURCE

Activity	Achievement Indicator	Related Institution/ Stakeholder
<p>1. Develop health care worker education program for screening, diagnosis, holistic management, and medico legal aspect of elderly</p>	<p>1.1 All medical and nursing education institutions have include elderly cognitive health into their curriculum</p> <p>1.2 Availability of trained health care workers and doctors for managing PwD in all Puskesmas, hospitals, elderly nursing home</p> <p>1.3 Availability of health care workers who have received TOT in PwD management</p> <p>1.4 Reduced number of PwD with advance function disorders and reduced number of PwDs who receive care in hospitals</p>	<p>Ministry of Education and Culture Ministry of Social Affairs Ministry of Health</p>
<p>2. Develop strategies to make sure that health care</p>	<p>2.1 Routine meetings are performed with all health care workers who are</p>	<p>Ministry of health Ministry of social affairs BKKBN</p>

Activity	Achievement Indicator	Related Institution/ Stakeholder
workers know the role of care partners in PwD care coordination	involved in PwD management with care partners 2.2 Routine healthy and productive older persons campaign in mass media	
3. Develop long term care services for PwD	3. Availability of long term care supporting insurance	Ministry of health Ministry of finance BPJS

SIXTH ACTION STEP: ESTABLISHMENT OF A COGNITIVE HEALTH PROGRAM AS THE MAIN FACTOR IN ACHIEVING A SMART LIFE IN THE NATION BASED ON THE LIFE COURSE APPROACH

Activity	Achievement Indicator	Related Institution/ Stakeholder
1. Strengthen cognitive health programs that is performed using continuum of care approach starting from pregnancy, to childhood, adolescent, adulthood, and elderly	1. Availability of cognitive parameters as the final goal of each public health program starting from pre-pregnancy to elderly periods.	Ministry of Health BKKBN
2. Integrate cognitive	2.1 Routine meetings coordinated by the	Ministry of home affairs

Activity	Achievement Indicator	Related Institution/ Stakeholder
health into central and local government plans	<p>local commission for elderly are performed</p> <p>2.2 Brain health content is included in the teaching materials for Strong Elderly Family</p> <p>2.3 Promotion, IEC, and counseling for families and community in each activity are performed</p> <p>2.4 Workshop and seminar on elderly with healthy and productive brain are performed routinely</p>	<p>Ministry of Health</p> <p>Ministry of Social Affairs</p> <p>BKKBN</p>

SEVENTH: IMPLEMENTATION AND APPLICATION OF RESEARCH ON COGNITION AND DEMENTIA

Activity	Achievement Indicator	Related Institution/ Stakeholder
1. Strengthen and develop research on balanced nutrition and elderly cognition and dementia	<p>1.1 Availability and implementation of multi-center research on cognitive and dementia</p> <p>1.2 Availability and utilization of the results of research</p>	<p>Litbangkes, LIPI, AIPI, DIKTI, other research institutions</p>

Activity	Achievement Indicator	Related Institution/ Stakeholder
	<p>on elderly that push for issuance of national policies on elderly</p> <p>1.3 Availability of continuous and systematic information (surveillance) that is sensitive to changes in elderly intelligence health problems</p>	
<p>2. Spread national level reviews regarding the public health impact on physical activity program and risk factors of dementia</p>	<p>2.1 Availability of baseline data of cognitive research in education and research institutions</p> <p>2.2 Availability of national level reviews on the use of technology to give optimum management in the program for caregivers and PwDs</p> <p>2.3 All public information on how to reduce risks for cognitive disorders and dementia must be based on</p>	<p>Litbangkes, LIPI, AIPI, DIKTI, other research institutions</p>

Activity	Achievement Indicator	Related Institution/ Stakeholder
	evidence and have good quality	
3. Include several key questions in the national survey system such as Riskerdas, to be able to get the prevalence of dementia and other cognitive disorders	3.1 Availability of data on prevalence and other related data on Alzheimer and other cognitive disorders	Litbangkes, LIPI, AIPI, DIKTI, other research institutions
4. Perform analysis on socio-economic impact of Alzheimer and other dementia diseases	4.2 Availability of accurate data on the socioeconomic impact of Alzheimer disease and other dementia diseases	Litbangkes, LIPI, AIPI, DIKTI, other research institutions

MONITORING AND EVALUATION

To enable the National Program for Older Persons and the rights of older persons to be implemented according to the objective, it is necessary to define the strategy for monitoring and evaluation that is used to guarantee the success of the program, including, among others:

1. Monitoring and evaluation on activity and strategy implementation that are performed by government in each level, i.e. central government through related sectors, provincial and

district/city governments through related offices.

2. Monitoring and evaluation on the implementation of the strategy can also be performed by the Commission for Elderly by holding routine meetings.
3. Monitoring and evaluation on the technical aspects of the program at the implementation level is performed by the Commission for Elderly, related sectors, universities, professional organizations, and NGOs.
4. For monitoring and evaluation, necessary plans and instruments are formulated.
5. Results of monitoring and evaluation are inputs for improvement, development, and refinement of the program.

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FUNDING

Funding for planning, implementation, evaluation, and development of the National Program for Elderly and rights of elderly in Indonesia comes from various sources:

1. APBN (state budget) and APBD (local budget)
2. International agencies
3. NGOs and community
4. Private sector and businesses

Budget allocation for elderly health and elderly rights from the Central Government, Provincial Government, and District/City Government needs to be increased. Funding from international agencies should be sought more seriously and intensively. Currently, and in the future, this funding source is still the main funding source. Funding from NGOs, private sector, and businesses needs to be sought even though the funding coming from these sources will not be able to cover the needs of the program because the current available funding is not adequate for achieving the goals of the program.

8 AFTERWORD

In order to achieve the optimum health status in old age as an investment for Indonesian human resource, this National Strategy towards Healthy and Productive Older Persons reflects an effort to position elderly issue as a priority. Productivity, independence, and the quality of Indonesian people until they reach old age are very much dependent on the ability to create an initiative with all elements of the nation to promote healthy and productive brain. The management of brain health disorder by dealing with cognitive and dementia disorders is performed using life course approach and will reduce the health budget burden that should be carried by the family, community, and government.

This document can be used as a reference and directive for related sectors, local government, non-government organizations (NGOs), professional association, private sector and businesses to ensure the success of the strategic plan of towards healthy and productive brain in older persons in Indonesia. This document can also be used as a guideline to seek for participation of other countries, international agencies, and private sector in elderly activities.

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GLOSSARY

Activity daily living	: daily activities to take care of oneself.
	Advocacy : to participate in giving support
AIPI	: association of political science of Indonesia
Academician	: teachers, related to certain field of science education
Accreditation	: assessment
Access	: reach
Accountability	: trustworthiness
Budget allocation	: funding for certain activities
Intake	: giving
Body/Agency	: institution
Balance	: equal state
Behavioral	: how something/someone behaves
Periodic	: routine, according to a schedule with certain time intervals
BJPS	: National Social Insurance Agency
BKKBN	: National coordinating Body for Family Planning
Care partner	: partner in caring for sick persons
Caregiver	: someone who provides care
Community based care	: care that is based on community.
Continuum of care	: continual care
Daycare	: daily care
Deficiencies	: lack of (nutrition)
Other dementia	: types of dementia other than Alzheimer, such as frontoparietal and basolateral dementia
Diagnosis	: name of a disease, usually in Latin or English, that is already standardized
DIKTI	: higher education

Disease and risk factor	: disease and its related risk factors
Dislipidemia	: a disorder in the lipid level in the body.
Disorder	: disturbance
DM (Diabetes Mellitus)	: a disease where the one time blood sugar level is higher than normal. There are two types of this disease, one relates to the genetic factor and another relates to the lifestyle.
Education	: education
Existence	: being exist
Element	: element
Epidemiology	: a science on disease occurrence in the community
Evaluation	: evaluation of results of work
Genetic factor	: factors related to hereditary traits
Risk factor	: effects
Cognitive function	: function of the brain that includes function of language, long-term and recent memories, name, sound and form memories, ability to recognize surrounding environment, mathematic ability.
Geriatrics	: A science that studies ageing aspects in human being
Global	: in the world
Healthy life style	: behavior of living a healthy life
Grant	: a gift without any condition
Holistic	: encompass all aspects of human life
Homecare	: care at home
Indicator	: achievement mark
Information	: activities to spread knowledge
Intelligence	: a state of being intelligent
Interconnectivity	: connect to each other

Internalization	: related to implementation and comprehension
Intervention	: an action to influence
Investment	: investment or saving for the future
Campaign	: education to give understandings on something to the general population.
Independence	: an ability to do daily activities without any help from others.
MOHA	: Ministry of Home Affairs
MOEC	: Ministry of Education and Culture
CMHCD	: Coordinating Ministry for Human and Cultural Development
MOH	: Ministry of Health
MOF	: Ministry of Finance
MOSA	: Ministry of Social Affairs
Reproductive health	: health that is related to delivering the next generation and regeneration organs from birth to elderly
PH	: public health
LC	: Local Commission
Commission	: a group of people with certain goals
Congenital	: disease/disorders that are carried by a person since he/she was born
Counseling	: providing advice to patients/sufferers
Coordination	: collaboration
Curative	: efforts to cure a disease
OPs	: Older persons
Leader	: the one who leads
Cross-sector	: collaboration among various sectors
LIPI	: <i>Lembaga Ilmu Pengetahuan Indonesia</i> (Indonesian Science Agency)
Litbangkes	: <i>Penelitian dan Pengembangan Kesehatan</i> (Health Research and Development)

Longterm care	: care in a long term
NGO	: Non-government Organization; an organization established not by the government but by some community members and dedicate works and thoughts for the advance of the community in certain fields.
Maternal Disorder	: disorders in pregnant women
Medico legal	: legal aspects of medical activity implementation
To predict	: predicting based on existing data
To promote	: to offer
To synergize	: to create supportive activities in the form of collaboration
Mental-emotional	: related to emotion
Partner	: collaborator
Monitoring	: to monitor
HCW	: health care workers
Neonatal disorder	: disorders during newborn period
Neurorestoration	: improving/curing a neuro-related disease
Nutritional	: related to nutrition
Obesity	: a state of being fat
PwD	: People with Dementia
Optimum	: in the most ideal condition
Participation	: join an activity
Stakeholder	: related organization
Leverage	: to trigger
Alzheimer disease	: a senile disease which especially affects the lateral brain. Patients experience disturbance in taking care of themselves and often get loss and cannot return home
Brain degenerative disease	: diseases related to age, brain experiences marked disease reduction in function
Cardiovascular disease	: diseases related to heart and blood vessels
Metabolic disease	: diseases created to chemical processes in human body outside the brain

Neuro diseases	: diseases related to neural structure (different from mental illness)
Pillar	: support
Pollution	: making dirty
Initiative	: ideas for progress
Prevalence	: the occurrence of diseases in the community
Preventive	: efforts to prevent diseases
Productive	: produce something (materials or non-materials)
Productivity	: related to smooth production (materials or non-materials)
Profession	: a certain job
Professional	: educated or official
Promotive	: promotion or efforts to improve the health status
Proportion	: comparison
Protective	: has a nature for protection
Strategic plan	: targeted plan to achieve targets
Riskesdas	: <i>Riset Kesehatan Dasar</i> (Basic Health Research)
Sector	: related to work field
Certification	: to give a certificate as an acknowledgment
Course	: cycle
Screening	: to screen, detect, or select using certain tools.
SOP	: Standard Operational Procedures, steps that are already standardized in patient management.
Spiritual	: related to the relationship between human and God.
Standard	: according to the standard values
Stimulation	: to stimulate
Substance	: core
Accommodated	: being collected/gathered
Realized	: proven

Integrated	: in unity
To be socialized	: known/understood by general population
TOT (Training of Trainer)	: activities to improve trainers' skills and or knowledge
Transparency	: openness (regarding funding)
Transport injuries	: traffic accident
LE	: Life Expectancy
Vascular	: related to blood vessels
Website	: internet page

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