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Integrated Care for Dementia in Taiwan: Policy, System and Services

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SUMMARY

In 2018, Taiwan began its Dementia Care Policy by passing the 2018–2025 Taiwan Dementia Plan 2.0 based on the World Health Organization's "Global Action Plan on the Public Health Response to Dementia 2017–2025". "Dementia Diagnosis, Treatment and Care" was one of the action plans which prompted the government to set up "Dementia Care" as a whole new item to its national policy called Ten-year Long-term Care Plan 2.0. Under "Dementia Care", 73 Dementia integrated care center (DICC) and over 350 Dementia Community Service Sites (DCSS) were established in 2018. This service structure brought the entire nation to upgrade its Dementia care by efficiently doing diagnosis, treatment and care management, supporting caregivers, building a community safety net, providing professional training and the public dementia literacy education. The purpose of this paper was to discuss how Taiwan planned for Dementia Care and how DICC were implemented by using two models in Taichung City: Chung Shan Medical University Hospital and Taichung Hospital of the Ministry of Health and Welfare. Close to 1,000 dementia clients and their family caregivers were served; close to 5,000 professionals and the public were trained by a multi-disciplinary team and care managers. It is our hope that this paper will contribute to how Taiwan built its dementia care system and to strengthen future dementia care policy, system and service delivery by analyzing the structure, process and outcomes of the integrated care centers so people with dementia and their families can live with quality and dignity.

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1. Introduction

According to the "2015 Global Dementia Report" published by the Alzheimer's Disease International (ADI), 50 million people worldwide were estimated to live with dementia in 2017 and the number will reach 131.5 million in 2050.¹ Globally, caring for people with dementia in almost all developed countries has become a national concern in terms of budget because the cost of dementia care already reached \$1 trillion in 2018. As a result of the increasing rate of new dementia cases and the high cost associated with dementia care, the World Health Organization (WHO) reached a milestone by setting up an international guideline and released the "Global Action Plan on the Public Health Response to Dementia, 2017–2025."^{2,3}

The Global Action Plan was to improve the lives of people with dementia, their families and the people who care for them; and to reduce the impact that dementia had on communities and countries.^{4,5} Seven action areas were outlined for each nation to develop

an infrastructure so the Global Action Plan can be fulfilled by 2025. The goals of the seven action areas were: (1) Dementia as a public health priority; (2) Dementia awareness and friendliness; (3) Dementia risk reduction; (4) Dementia diagnosis, treatment, care and support; (5) Support for dementia caregivers; (6) Information systems for dementia; and (7) Dementia research and innovation.² In this paper, the authors focused mainly on how Taiwan government set up "Dementia diagnosis, treatment, care and support" by doing its policy implementation and service development.

2. History and development of dementia care in Taiwan

In 2018, Taiwan joined 27 countries around the world to establish its national Dementia Prevention and Care Policy and Action Plan 2.0 and to start creating a dementia friendly society.⁶ Taiwan faced a similar trend in new found cases, care costs and challenges to treat and care for dementia families. This policy action plans came at the time when Taiwan became the world's fastest aging country: from 2018 to 2026, Taiwan will start from an "aged society" to a "super aged society," making 14% to 20% of the total population being older adults age 65 years and over, respectively.⁷ Based on the results of the Epidemiological Survey of Dementia commissioned by the Ministry of Health and Welfare in 2011–2013, the

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higher the age in every 5 years, the higher the prevalence rate is for dementia.⁸ For example, dementia prevalence is estimated at 3.40% between 65 to 69 years old, 3.46% between 70 to 74 years old, 7.19% between 75 to 79 years old, 13.03% between 80 to 84 years old, 21.92% between 85 to 89 years old, and 36.88% between 90 years old to 36.88%. Currently, it is estimated that the population of dementia in Taiwan has reached 280,000 in 2018. In 2031, the population of dementia will double to exceed 460,000.

For Taiwan, the history of dementia care can be traced as early as the Japanese era in 1934 when the first psychiatric hospital was built in Tao-Yuan.^{9,10} However, the formal structure for dementia care started when the government formally established its Senior Citizens Welfare Act where institutions for older adults who needed long-term care were stipulated in 1980. Under this act, few adult day care and home care services were established and experimented in the 1990's as Taiwan government started to build its long-term care system. In the 2000's, Taiwan started its universal long-term care system: both the Ten-year Long-term Care Plan (2007–2016) and the subsequent Ten-year Long-term Care Plan 2.0 (2017–2026).¹¹ As a result, the service options now for people with dementia can range from home care, foster care, self-help family group care, adult day care, group home, overnight-stay adult day care, community dementia care sites, day service, dementia unit in hospitals, and dementia unit in nursing homes (Table 1).

On the policy level, the Welfare Department announced the "Taiwan Dementia Prevention and Care Policy Agenda Version 1.0" in August 2013 and completed its action plans to establish community-based care programs by 2016. The action plans were: (1) Raise public awareness of dementia prevention and care; (2) Comprehensive community care networks-diversified, local services and family caregivers; (3) Strengthen dementia prevention and health service in primary care; (4) Cultivate human resources and strengthen service competencies; (5) Enhancing interdepartmental collaboration and resource integration; (6) Promote dementia research and international collaboration; and (7) Safeguard the rights of people with dementia.

This progress was significant in Taiwan's dementia history and helped built a foundation for Taiwan to move into the next phase by complying with the WHO's Global Plan of Action for Dementia. Thus, the birth of "Taiwan Dementia Prevention and Care Policy – Action Plan 2.0" was released and adopted by the Ministry of Health and Welfare in June 2018.¹¹

3. Challenges of Dementia Care

One important analysis done at the national level in 2017 was

Table 1
History of dementia policy and services in Taiwan.

Year	Policy or milestone
1934	"Yoseiin" (养神院) was founded in the Japanese ruling era (1934) by Taiwan Sotofuku (台湾总督府) as the first public mental hospital in Taiwan. It was a psychiatric hospital for people who experienced Dementia-like symptoms.
1980	The enactment of Senior Citizen's Welfare Act and Disabled Citizens Protection Act allowed for establishing institutions to be built for hosting long-term care needs, including for people with Dementia.
1983	"Home Visit Service" appeared for the first time to serve people with disabilities (including people with Dementia).
1985	The first Adult Day Care Service was established to serve people with disabilities (including people with Dementia).
1990	Disabled Citizens Protection Act stipulated people with Dementia as an official category of clients for services.
1996	"St. Joseph Home" was established as the first long-term care institution for people with Dementia.
1997	Senior Citizen's Welfare Act and Disabled Citizens Protection Act stipulated "Home Care Service" as an official community-based service category.
2000	"Adult Day Care Service" for people with Dementia was established as part of The Pilot Study of Constructing Long-term Care System in Taiwan (2000–2003).
2007	Ten-Year Long-term Care 1.0; "Group Home" was first piloted under Senior Citizen's Welfare Act.
2013	Dementia Prevention and Care Policy and Action Plan.
2017	Long-term Care Service Act; Ten-Year Long-term Care Plan 2.0; Dementia Prevention and Care Policy and Action Plan 2.0.

Note: This table was compiled by Li-Ying Chen and Tsuann Kuo, Chung Shan Medical University, based on References #8–11,14.

about long-term care utilization by people with dementia. The results revealed that most of the dementia families did not use long-term care services and were still cared for by family members.¹² The usage of community-based or institutionalized care was lower than 10%. When many families found the care of dementia too difficult, about one-third of the families hired foreign care workers to care for their dementia family members. The overall usage of long-term care resources among people with dementia was lower than those with functional disabilities (Table 2).¹¹ Several literature examined the challenges that people with dementia and their families faced and found the followings: (1) lack of policy and action plan for dementia care; (2) lack of integrated centers for coordinating dementia care policies and resources; (3) lack of public education and knowledge about dementia; (4) lack of support for long-term care payment for dementia care; (5) lack of strong holds for dementia community-based care; and (6) lack of professionals specialized in dementia care and caregivers.^{11,12}

Therefore, Taiwan's Dementia Prevention and Care Policy – Action Plan 2.0 was created in June 2018 to address how people can prepare to face the challenges of dementia treatment and care. If dementia is currently not fully curable, an integrated system should provide different levels of individualized services based on their different courses of the illness and functional abilities, so that they can get early intervention services and appropriate treatment, delay deterioration and maintain quality of life, and relieving the heavy pressure of family caregivers.¹³

4. The Implementation of Dementia Care Policy – using Dementia diagnosis treatment, care and support as an example

The New Dementia Prevention and Care Policy – Action Plan 2.0 and the Ten-year Long-term Care plan 2.0 both happened to start its implementation period in 2018. While as before when people with cognitive decline or suspicious of dementia may not have care re-

Table 2
Analysis of long-term care services utilized by people with dementia (in %), (source on References #11)

Service types Stages of dementia	Institutionalized care	Home care	Foreign care worker	Taiwanese domestic care worker	Day care	Did not use
Mild	3.7	3.7	28.6	3.7	0.3	60.0
Past mild	6.2	4.8	30.7	3.2	0.2	54.9
Moderate	7.1	4.4	35.4	2.7	--	50.4
Severer	12.0	8.0	32.0	2.4	--	45.6

sources, the Ten-year Long-term Care Plan 2.0 added individuals 50 years and older with dementia diagnosis can be covered for long-term care services. These individuals can be disabled or non-disabled as long as being diagnosed with dementia. In addition to long-term care services, these individuals can be care managed by the Dementia Integrated Center and attend activities along with their caregivers hosted by DCSS (Figure 1).^{14,15}

Although the Ministry of Health and Welfare gave individual municipalities the flexibility to develop a dementia implementation plan based on its needs, cultural and geographic characters, there were basic principles and outcome measures that were outlined. First, dementia care should be integrated based on the needs of the people with dementia and their family members. Secondly, timely diagnosis, appropriate treatment and care, and reduce the risk of dementia as a chronic illness should be considered. Thirdly, dementia patients, caregivers and their families can get the services and support they need to maintain their dignity and good quality of life. Finally, reduce the impact of dementia on dementia patients, caregivers, families, communities and countries.^{16,17} As a result, each City started to establish many DICC and DCSS based on its needs and accessibility analysis. The DICC was responsible for (1) diagnosis, treatment and case management of dementia clients and family caregivers, and (2) Forming a platform with nearby communities to establish a dementia support network. The DCSS was responsible for providing (1) health promotion activities; (2) safety watch; (3) family support programs; (4) innovations; and (5) dementia education.¹⁵

5. Integrated Dementia Care Models

Under the Ten-year Long-term Care Plan 2.0, 73 DICC and 350 DCSS were established in 2018 as a service delivery system for dementia. A national resource map was also dedicated to dementia care so people can find dementia resources at the local level (www.dementiaservicemap.com.tw). In order to demonstrate the implementation of this important policy, this article used two of the hospitals (Chung Shan Medical University Hospital and Taichung Hospital, Ministry of Health and Welfare) that the authors were employed to demonstrate how DICC were able to function to work towards the outcome measures aforementioned.

1. Dementia Integrated Care Center, Chung Shan Medical University Hospital
 DICC of Chung Shan Medical University Hospital was the first

one established in Taichung City in 2017. This Center was structured based on the Chronic Disease Management Model where health care professionals served as the screening point and treatment site for the dementia clients. In addition, the daily care of dementia families had to rely on community-based organizations to provide social support, health promotion and dementia literacy education to the public²⁰ (Figure 2). Chung Shan Medical University Hospital designated ten cross-disciplinary professionals and care managers to provide services for the dementia clients.¹⁸⁻²⁰ The professionals included doctors, nurses, pharmacists, nutritionists, occupational therapists, physical therapists, psychologists, social workers and lawyers; and the care managers assisting dementia clients and their families with screening, arranging doctor appointments for diagnosis or treatment, answering any questions about dementia and care-related issues, referring health experts to do consultations, and making sure the dementia family has a follow-up schedule. The care managers usually make sure the transition between hospital/clinics and home/ communities were as smooth as possible because they follow up with the clients and family members once a month to make sure challenges related to dementia can be resolved. If the

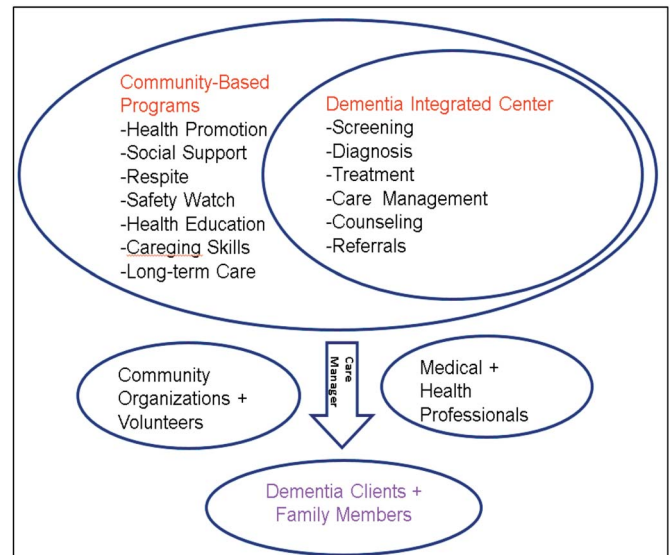


Figure 2. Dementia Integrated Care Center based on Chronic Disease Management Model by Chung Shan Medical University Hospital.

Dementia Care Framework

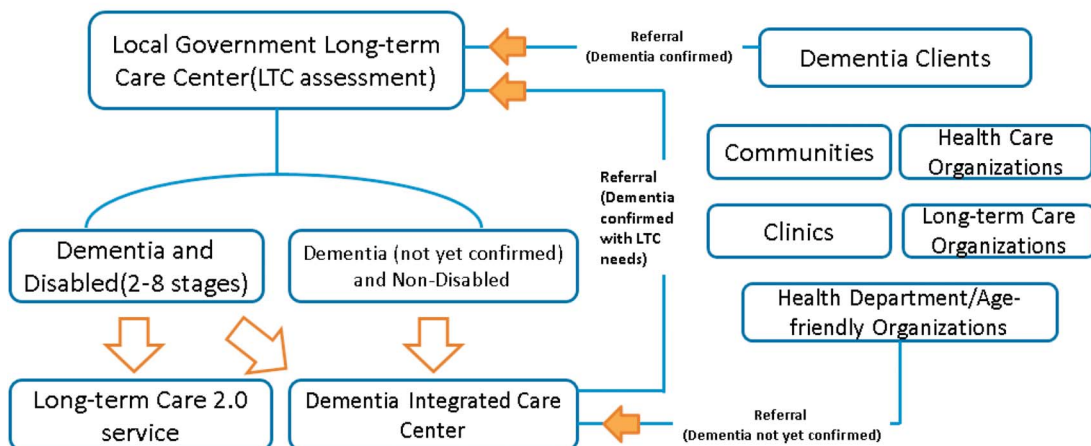


Figure 1. Dementia care framework. (Source on References #14)

caregivers (family members or foreign care workers) were too stressed, referrals to the Caregiver Resource Center will be done to receive respite services, relaxation programs and education.¹⁹

2. Dementia Integrated Center of Taichung Hospital, Ministry of Health and Welfare

For the Dementia Integrated Center of Taichung Hospital, Ministry of Health and Welfare, a “memory and dementia integrated clinic” was established in 2007 (Figure 3). The Ministry of Health and Welfare also funded the hospital to initiate a series of dementia care, including community care plan, adult day care, and friendly hospital.^{21–23} Although these establishments were not necessary as part of the Dementia Integrated Center, they added more comprehensiveness and continuum of care for people with dementia and their families. For example, the hospital established the Evergreen Clinic, a one-stop integrated clinic where dementia and geriatric doctors along with the neurologist, the psychiatrist, the orthopedic, the urologist, the clinical psychologist, and the care managers all work together. When people with dementia has chronic illnesses such as diabetes, the geriatrician and other specialty doctors can care and monitor to make sure the process is effective and efficient; and the care manager can do the health and nutritional education along side with monitoring sugar level on a regular basis.

With this foundation in hand, the Taichung Hospital started its DCSS in 2017 and DICC in 2018 with a unique “share decision making” model so that the dementia clients and their family members can have full discussions with the medical team and the care manager. The care managers had professional nursing backgrounds to assist the followings: (1) scheduling and follow-up visits to the memory clinics; (2) managing client’s co-morbidity; and (3) referring clients to long-term care services and community-based program for dementia. The memory clinic was the highlight as patients were able to do a one-stop clinic visit for all of their dementia related care. In

addition, as a public hospital known for innovations, the Taichung Hospital also published a “Dementia Caregiver Manual” for the dementia family as well as won several SNQ awards for being a modeled hospital integrating medical care and community-based services.^{22,23}

Both hospitals established their dementia centers at different time with different service structures and unique characters. As of 2018, these two centers were able to take care of 901 dementia clients under their integrated care systems. Together, these two centers provided dementia trainings to 1,099 health care professionals; and over 40 classes were delivered in the communities to educate 3,626 individuals in order to increase dementia literacy for the public (see Table 3).

6. Conclusion

Taiwan entered a new era as 73 DICC and 350 DCSS across the nation for people with dementia and their families in 2018. The establishment of DICC allows each city to develop a safety net for people with dementia and their families, with screening, diagnosis, treatment and care. At the same time, DICC’s are also responsible for training a large number of service delivery personnel, i.e., professionals and the public to increase dementia literacy.

Integration between long-term care and dementia care is also a key as people may develop dementia and other chronic illnesses concurrently. The two DICC’s shown in this article, demonstrated that dementia care was based on a multi-disciplinary and care management team.²⁴ The multi-disciplinary professionals provided solutions to solve dementia care challenges and the needs of caregivers; and the care managers also focused on building a relationship between DICC and DCSS’s so dementia families can have places to go for activities and education in their convenient locations. However, given that the centers were relatively new and had just started to provide continuum care for people with dementia, the care quality such as life quality, speed of declination of cognition or daily function, and the rate of nursing home admission, could not be examined but would definitely be considered as future evaluation or research.

Since people with dementia may or may not have already developed other chronic illnesses or disabilities, an integrated system that looked into multiple illnesses is important in the future. People with dementia and their families should have an access that was integrated between health and social departments, and between medical and community-based organizations. As Taiwan enters an aged society and moving fast towards a super aged nation, it is important that a network of services can be developed with the support of technology and medical advancement. In recent years, the concepts of smart care, age-friendly hospitals, and telemedicine as well as more precise diagnosis, new dementia drugs or ways to deliver drugs can be further explored so Dementia Care Policy 2.0 can reach

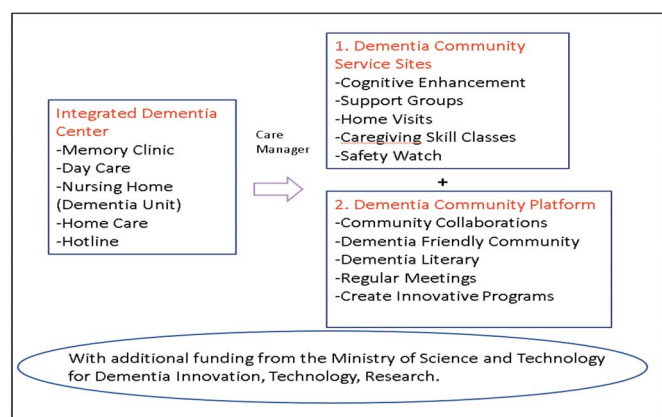


Figure 3. Service structure of the Dementia Integrated Care Center at the Taichung Hospital, Ministry of Health and Welfare.

Table 3 Service outcomes of the two dementia integrated care centers in 2018: Chung Shan Medical University Hospital and Taichung Hospital, Ministry of Health and Welfare.

Dementia integrated care center	# of clients	# of professionals trained	Dementia literacy education	Highlights
Chung Shan Medical University Hospital (Est. 2017)	700	599	2,126	<ul style="list-style-type: none"> Multi-disciplinary (10 professionals) Community network Designated Website
Taichung Hospital, Ministry of Health and Welfare (Est. 2018)	201	500	1,500	<ul style="list-style-type: none"> One-stop service Long-term care services in place
Total	901	1,099	3,626	

its goals to fulfill the seven action areas within eight years.

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Conflicts of interest

All authors declared no conflict of interest.

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