

## Design of nursing practice model to develop “healthy regions” in remote islands and rural areas -Learning from the Federated States of Micronesia-

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### Abstract

The purpose of this report is to develop some suggestions about healthcare in remote regions and islands through my seeing and hearing about the lives of the people living in the Federated States of Micronesia and visits to healthcare-related organizations.

It is important that the “creation of a healthy region” is included in the process of Primary Health Care (PHC) practice. The development of healthcare professionals which can lead to structuring a community-based care system by using a conventional life model will become a great touchstone. The experts in community nursing in Japan whom I have personally known have an interest in culture and assign great value to the attitude that “we can do anything because we have nothing”. From such a cultural perspective, the fact that Chuuk nurses are assigned in their hometown Dispensaries is a great advantage. I think that immersing ourselves in our hometowns and developing our abilities to understand our regions are important topics.

**Key words:** nursing practice, remote islands, rural area, Primary Health Care, the Federated States of Micronesia

### Introduction

Japan consists of approximately 400 islands, large and small, and among them, the number of regions regarded as “rural area” is not negligible. “Remote regions” are defined in the medical field as “regions where the securing of medical care is difficult among the mountain regions, isolated islands and other regions disadvantaged in terms of traffic, natural and social conditions,” and “this also includes doctorless regions, quasi-doctorless regions and those where a remote clinic is open.” These regions tend to have chronic difficulties in accessing healthcare services. In Japan, since 1956, medical-care measures for islands and remote regions have been continuously focusing on making legislative preparations for recruiting human resources including doctors for the support of activities. However, in order to expect a high performance in healthcare-related welfare measures for islands and remote regions, we should know that the true substance of this issue

is not a problem resolved only by recruiting human resources and an enforcement of the system of the provision of healthcare. What is important is not only to focus on medical care, but also to comprehensively pursue the prevention of disease and the promotion of good health, and for that purpose, residents should participate in the creation of a regional climate where they can realize “the creation of a healthy region” by playing major roles there.

Then, how can a healthy region be created for residents? When we think about this question, we realize that the principles of Primary Health Care (hereafter referred as to “PHC”) have a high affinity with the question at hand in that residents “grasp the whole region beyond individuals and their families” in particular, “the residents of the region aim for the realization of their healthcare system by their initiative and positive participation” and “through the effective utilization of regional resource.” The Federated States of Micronesia

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consist of more than 600 islands and some 120,000 people living on 65 islands. This area is the field where PHC is practiced now.

I had an opportunity to visit the Federated States of Micronesia as part of the project by Research Center for the Pacific Islands, Kagoshima University (2013.8.4-811). I summarized this report for the purpose of developing some suggestions about healthcare in remote regions and islands through my seeing and hearing about the lives of the people living in the Federated States of Micronesia (and experiencing part of them myself) and visits to healthcare-related organizations.

### **Outline of Healthcare in Chuuk State, the Federated States of Micronesia**

Chuuk State, one of the four states composing the Federated States of Micronesia, is the largest atoll in the world, 200km around, consisting of 248 islands, and about 50,000 people are living in about 40 inhabited islands, large and small. A third of the total population of the state are concentrated in Weno Island, where the state capital is. Each of the four states of Micronesia have their hospital system controlled by the state government. The healthcare service is under the control of each respective state, and each state provides medical care, disease prevention and public health services. Inoculation and HIV screening are mandatory. Family planning maternal child health and HIV/AIDS, in particular, are very important tasks, and each donor implements the project for support. In Chuuk State, the Health Service Bureau, medical organizations and women's organizations also provide care services of disease prevention and physically check and deal with the improvement of health problems. The pregnancy rate of unmarried teen girls is high in Micronesia and it leads to dropping out of school. Because of this, reproductive health for young people was introduced as a subject in school. Caused by the traditional sense of values and inadequate social safety net, women's abuse and discrimination against women still remain as serious problems. Because of the rapid modernization of lifestyle, westernization of dietary habits caused by drastic increases of imported food, lack of vegetable intake and detachment from local food, the increase of lifestyle diseases including obesity, diabetes and high blood pressure have become large health problems. Therefore, enacting measures for both the improvement of dietary life and moderate physical activity have become necessary. Weno island has healthcare institutions including a state hospital as well as medium and small sized private clinics. A small island

called Outerisland has a simple healthcare facility called Dispensary, where a nurse or a health assistant is assigned and provides primary care including the distribution of medicinal drugs. Not only Chuuk State, but also the whole of the Federated States of Micronesia is chronically short of healthcare professionals of doctors, nurses, medical technologists and health assistants. Therefore, providing medical-care all people in Micronesia with a healthcare service is a big challenge. Since testing equipment and medical-care facilities are scarce here, if patients cannot receive enough service, they need to be sent to Hawaii, Guam and the Philippines to get more adequate healthcare. "Who bears off-island referral expenses depends upon the financial condition of each state and whether the individual is covered by social insurance. (Omission) Because Chuuk State suffered from financial collapse, it is in debt with payments to the hospitals that accepted the patients, so those hospitals have refused to accept patients from the state in the future" 1). Under these conditions, the Federated States of Micronesia may never be able to provide patients with an advanced medical service.

### **Visit to a Site Where PHC is Practiced - Public Health Department of State Hospital and Chuuk Women's Council (CWC)**

For the above health tasks, a PHC program including prenatal checkup, family planning, STD preventive measures and preventive measures for lifestyle diseases was implemented by the Public Health Department of the State Hospital and the Chuuk Women's Council (hereafter referred to as "CWC"). Philippine nurses in addition to Chuuk nurses were working in the state hospital. They were said to be diligent, able to speak English and highly-motivated. They belonged to hospital wards. Although we did not have the chance to directly talk with them and confirm it, it will be appropriate that they are assigned to the hospital wards because their expertise is required as universal nursing care and as specialists. It was also said that the state hospital has a suboffice in a high school and performs education activity concerning measures for HIV/AIDS and family planning as a part of sex education. It is a great merit to position the improvement of health literacy in school health because it can be directly provided to students. The utilization of a variety of media such as signboards and leaflets for that purpose and the creation of the system of peer education among students prove the effects of this approach. On the other hand, there are conceivable disadvantages. For example, because "the venue of health literacy is in school," there remains a question of whether or not students

may “feel difficult in accessing such a sensitive health behavior.” I heard during field work that “Condoms are distributed to students who want them, but sometimes they have to sign their name when they receive it, which discourages students from getting it.” In this case, if anonymity is assured by instructing “you may not write your name,” it may lead to better health behavior. However, for the purposes of designing a support system like this, it is important to know well the historical structure, values and way of thinking in the region in order to be able to better predict the behaviors of locals. A staff member is assigned for this activity and the suboffice is financed by a fund.

CWC is a women’s organization that has been established mainly for the purpose of protecting women’s human rights. It is characteristic of this group that it provides not only health promotion activities including physical check-ups, but also that it provides job assistance to allow them to acquire sewing skills. Its program design is excellent in that it takes a comprehensive approach to “human, health and living” where the viewpoint of support for the self-reliance is also incorporated.

CWC can be said to be connected to the construction of a healthcare system because it implements measures based upon the needs of residents by utilizing the social resources of the region, and sometimes creating new resources, considering cooperation with other sectors, based upon the viewpoint of PHC, in particular.

### **Experience in the Local Lifestyle - Homestay in Romanum Island and Eating Home Cooking on Weno Island**

I visited Romanum Island, one of the outer islands. It was a small island about one and half hours distance from Weno Island by boat. Rainwater was used as precious daily life water. There were no gas utilities. They had cell-phones. There was a medical facility called Dispensary where a health assistant was assigned. When I asked the residents at what time do they use the medical facility, they answered “at first, we manage by ourselves. If we can’t, we go to Dispensary. If that’s still no good, we go to the hospitals of Weno Island. We make this judgment ourselves.” It seems that in the case where long-term care such as hospitalization is needed, they sometimes give up receiving medical treatment. A woman answered “We are careful of our health” to my question “Are you careful of your health?” But her husband sitting beside her who was answering my questions was putting three teaspoons of sugar in his coffee. Several kinds of drugs purchased at a drug store were found on the shelves of my host

family, which revealed some amount of self-medication.

We had the chance to make a home visit in Weno Island. We were treated with home cooking and could observe their lifestyle. The livelihood of the family we visited looked very good among others around there. They said “We sometimes provide financial support to some of our relatives. That is natural.” The sense of “family” to include relatives is alive in this region. They are not limited to Chuuk Island, and often go to Hawaii and Guam, etc. to work, sending their earned money to their families in Chuuk State. Exceptional people, in particular, tend to go abroad for work in order to contribute to their families. This pattern of life is often found in this region.

### **Discussion - What are Characteristics of Community Nursing?**

In order to “grasp the whole region beyond individuals and their families” and “aim at realizing a healthcare system by regional residents’ initiative and active participation” by “effectively utilizing regional resources,” “how do they regard their lives?” or “how can they proceed with the development of a healthy region for all residents?” “What if I was born in this small island of this nation?” While I was asking these questions to myself, I was inspired by these questions and found myself looking back at community nursing in Japan. I would like to sort out “the characteristics of regional nursing anew” that I will consider.

Although the qualifications for the nursing job are classified into public health nurse, midwife and general nurse in Japan, I focus on public health nurses, in particular, as the personnel that take part in community nursing practice in this paper. “The term public health nurse” means a person under licensure from the Ministry of Health, Labour and Welfare to use the title of Public Health Nurse and provide health guidance as a professional.” (Act on Public Health Nurses, Midwives and Nurses) A public health nurse is an expert of community nursing who is mainly involved in public health activities including the prevention of diseases and health promotion mainly through regional activities, health education and health guidance. The places where public health nurses work are broadly classified into the fields of school healthcare, industrial healthcare and regional healthcare. I will look at the activities of public health nurses in the field of community health who work in administration office.

### **(1) Community-based Nursing Practices Comprehensively Based Upon the Factors of “Environment, Human and Disease”**

There is a history that many public health nurses have accumulated their activities as the bearers of PHC in Japan, too. After the war in the past, the Public Health Nurse Station System was implemented. The public health nurses of this system in Okinawa prefecture achieved great results in the infection control of malaria and tuberculosis and the guidance of maternal and child health in their activities. Their activities expanded to vaccinating barefoot people against tetanus and giving shoes, promoting school education and making toilets. They also improved the environment in order to decrease mosquito population, repeated the campaign to prompt preventive behavior and treated persons who had symptoms of malaria by administering medicine. They improved public health not only by treating diseases but also by changing entire ways of living. The nursing that changed the way of life of the whole region based on the factors of “environment, human and disease,” “community nursing” in other words, saved Okinawa Prefecture. In this way, before and after the war, the Public Health Nurse Station System that was introduced to every region had provided the health services to a certain level even in doctorless regions on remote islands and rural areas. The implementation status of the Public Health Nurse Station System differed by prefecture, city and village. Many stations were short-term. However, some of them worked for the medium and long terms and positions continued to exist until 1994, when the Community Health Act was enacted. At an early time, public health nurses took care of all residents in the regions in which they were assigned. Under this system, public health nurses took responsibility for entire regions. They walked their region, listened to the voices of all the regional residents, discovered the health problems of the region by building up trusting relationships with them and intervening in their lives by being effectively involved in their lifestyle, values and beliefs. It would be safe to say that community-based nursing practice has been developed based upon these efforts. Furthermore, in that background, there are success factors that can be attributed not only to their knowledge of medicine, but also to the fact that they captured the residents' living conditions from sociologic, ethnologic and cultural viewpoints. The nursing staff who are working in regions effectively utilize the “community diagnosis” to understand the living conditions in that region. Community diagnosis means a set of processes made to “clarify regional problems through regional activities and to implement care to

not only individuals, but also to groups or regions through regional activities in order to alleviate or resolve regional problems.<sup>2)</sup>”

### **(2) From Individual Support targeting Families to the Structure of a Healthcare System in the Region**

An identity of community nursing activity is recognized in that “the activity targets not only individuals but also their family members.” The nursing staff who implement nursing practices based on community nursing in order to promote the recovery of the targeted individual target all family members, including the sick individual, by giving them physical, mental and social care, all of which are recognized as a framework for support. They make efforts to improve the healthcare environment where they can provide better care by supporting family, alleviating the family’s anxiety and enhancing the family’s competence. Furthermore, they are equipped with the competence to coordinate with other social resources or create new social resources depending on the needs of patients while they deepen the support to individuals and connect their efforts to the creation of a community healthcare system. For example, in the case where there is no clinic specializing in a specific intractable disease in a certain region, public health nurses of the region appeal to medical institutions to start a special team consisting of a doctor, nurse and physical therapist. In this way, the public health nurses can start a support team and enforce their connection with the team by launching a home renovation so that the patient can continue home health-care, and by appealing to and negotiating with the institutions concerning publicly rented machinery, including aspiration devices. In some instances, a public health nurse accompanies a patient to visit a medical institution for consultations and acts as a mediator between the patient and specialist. In this way, they can create a healthcare environment where the patients and their families can heal themselves. In some cases, they can create a peer community where those who have difficulties in similar situations can talk and share their problems. Then, it may happen that the family members can gradually acquire the strength to face their own problems. Whether or not the maximum effect can be obtained depends upon the competence of nursing staff. Before preparing this situation, nurses must visit the targeted family in order to understand individual situations (how they perceive their problems) and make an arrangement so that the members of each family can express their feelings and problems in the peer community. During that time, family members can talk with each other and look back on the past, gradually regaining a

sense of value in living by their own efforts and enhancing the feeling of self-affirmation. Eventually, the competence of the family members can be developed so that they can enjoy a sense of well-being. The process of carefully exploring the needs discovered by involvement with individuals and connecting the results for support can nurture family members and develop social resources, and, eventually, lead to a regional healthcare system structure. Policy enforcement is one of the measures necessary to improve the healthcare environment. Furthermore, providing feedback concerning “how to circumvent serious situations like this,” can be connected to the improvement of the prevention activity concerning “how to prevent a similarly serious situation earlier the next time it occurs.” Also, it is possible to develop regional health tasks by restructuring the needs from the viewpoint of a life model concerning “how to create a region where patients with intractable diseases live (or pass on) with peace of mind.” Developing individual support to regional tasks may be one expertise of community nursing.

### **(3) Development of Nursing Process involving “Regional Creation-type Extracting Residents’ Own Strengths” based upon Life Model**

One of the factors leading the above activity practices to success is building a partnership with targeted individuals or related professionals based on their cooperation as the basis of an active attitude. The targeted individuals improve their self problem-solving skills through a supporting process, and public health nurses present it as a community health task, aiming at the problem’s solution involving the region, and as a result, the health degree of the whole region is improved. Public health nurses are aiming at the design of dynamic nursing practices such as this. Therefore, the personnel employed as role models of nursing staff are not required to be experts who solve problems and make decisions based on their expertise, but are required to be partner. Why partner? They are required to positively enter the region and capture real needs that can be clarified only by structuring a personal relationship. This method can lead to the proposal of efficient and effective measures that are appropriate to the region. The personnel well realize that “the structure of human relationships is the best method for care.” Public health nurses are excellent in building partnerships. One reason is that they have a unique ability to enter areas where they are not even required by taking advantage of health problems and by being professionals familiar to residents. Public health nurses involved in the administration office who are in a neutral position and publicly

backed up can exert their abilities through public intervention. Therefore, public health nurses enter into regional society with an “interfering existence” to a certain degree. Through a delicate negotiation involving much effort, they can manage the negotiating partner to do what they like even though they are not needed, and before anyone knows, they can start supporting the targeted individuals as a partner. They also support those who are not entitled to support because of a gap between law and practice. Public health nurses are developing a large network of personal contacts in their professional lives. Another reason is that the community diagnosis performed by public health nurses to “examine those living in the region” is developed based on social-scientific theories, including ethnography. The purpose of ethnography is not only to describe superficial behavior of a certain group, but also to depict the social behavior of the group including the context, human network and sense of values behind the behavior. Historically, public health nurses have been educated on the matters concerning regions with ethnographic ideas such as “lifestyle knowledge” and “cultural knowledge.” The findings of “community diagnosis” based upon ethnography instruct public health nurses on the “point-of-view method.” Public health nurses acquire the “point-of-view as a resident” and become able to understand even their own effective actions and behaviors in the region while placing emphasis on regional cultural values. It is suggested that in the case of community societies like remote islands and rural areas, whether or not the contexts of regional society seen in the “exclusiveness observed by an insider and outsider,” “absence of anonymity” and “isolation caused by the lack of specialist jobs and regional resources” (version partially revised by author based upon rural nursing theory) can be effectively utilized as guidance for role making and role performance influences the patterns of relationships and the method of actual practice<sup>3</sup>). In this way, it is possible to clarify the beliefs of targeted individuals concerning health and diseases by understanding the culture.

When the relationship as cooperative partners is built, dialogues are generated between nursing staff and targeted individuals, bringing about opportunities for learning and growth on both sides. I know a public health nurse, who performed the support of a targeted individual with an intractable disease, visited the patient’s home for a brief time after the patient’s death to offer incense sticks. She spent time in conversing with the family members. Public health nurses are required to have a high degree of specialization in community nursing in that, while performing social work, they are

dynamically involved in regional development, hurrying through individual support, regional support, community diagnosis and system creation. The nursing model that public health nurses have employed for the “creation of healthy regions” is an ideal and practical type of PHC.

### **Possibility of Regional Nursing for Realization of PHC - Dig Beneath Your Feet, and You Will Find a Spring**

It is important that the “creation of a healthy region” is included in the process of PHC practice. In healthy regions, the residents can take initiative in solving problems by organizing themselves, and the connection between people and beliefs and the norm within the community (i.e. Social Capital: SC) can be fermented, and as a result, make regional society healthy. The development of healthcare professionals which can lead to structuring a community-based care system by using a conventional life model will become a great touchstone. How can healthcare professionals and nurses with a high ability to understand culture be trained? How can the climate be nurtured in which structures and ideas will be created? The experts in community nursing in Japan whom I have personally known have an interest in culture and assign great value to the attitude that “we can do anything because we have nothing”. There is no social status, no organization and no funding. Only because they have nothing can they enter the region, sometimes listening to how the patients are living (just like a family member), carefully observing their lives (just like a researcher) and comprehensively capturing the contexts of families (regions) such as “the family members of that house (or region) are this way” to find the topics in need of research. Regional residents have a particular affinity for nurses to attain roles as professionals and partners who are close to the residents and whose lifestyles can be observed. From such a cultural perspective, the fact that Chuuk nurses are assigned in Dispensaries is a great advantage.

I had a chance to listen to two women building their career in Chuuk State, their hometown. One of them was a staff member of the Health Service Bureau and another was a teacher in an educational institution. Both of them were graduates of Xavier High School in their hometown. Both of them wanted to work abroad at least once, but they chose to stay in Chuuk after being strongly persuaded by their parents. I wonder if they passively selected to stay in their hometown. They are working with a sense of mission such as “wanting to improve their hometown” and “wanting to educate students to motivate them.”

I think that Chuuk Nurse is the best learner for

improving cultural competency. We had a talk about the task of continued education concerning “how to improve the motivation of Chuuk nurses” in the public health department of a state hospital. I think that “we can do anything because we have nothing,” “there is a mine beneath our feet” and “immersing ourselves in our hometowns and developing our abilities to understand our regions,” are important topics.

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Photo. 1 The Public Health Department of the State Hospital



Photo. 2 Women sewing at Chuuk Women's Council (CWC)



Photo. 3 Suboffice in a high school (1)



Photo. 4 Suboffice in a high school (2)