Annals of R.S.C.B., ISSN:1583-6258, Vol. 25, Issue 4, 2021, Pages. 18176 - 18187
Received 05 March 2021; Accepted 01 April 2021.

Infectious Waste Management Model of Health Promoting Hospital in the Three Southern Border Provinces South Thailand in the Future

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ABSTRACT

The purpose of this research was to study the infectious waste management model of Heath Promoting Hospital in three provinces South Thailand in the future by using EDFR (Ethnographic Delphi Futures Research). The sample used in the study consisted of 24 experts in the management of infectious waste by purposive sampling. To collect data by interview and rating scale questionnaire. The first collect data was interview for rating scale questionnaire then the second and the third were collect data by the experts. The final data analyzed to mean median and quartile. The results revealed that the infectious waste management model of Heath Promoting Hospital in three provinces south Thailand in the future. Include key concepts, principles, development of the infectious waste management model. The main process of handling infectious waste. Guidelines for the management of infectious waste. Approach to deal with the impact of infectious waste. Model approach to deal with the situation of infectious waste.

Keywords: Infectious Waste , Management Model , Health Promoting Hospital

1. Introduction

Waste from hospitals classified as hazardous waste since there were both infectious waste that can spread the germ, including waste contaminated with radioactive substances, deterioration drugs, dangerous chemicals, sharp objects, carcasses and most of hospitals do not manage to collect and eliminate correctly. Infectious waste from the hospital were dumped into the environment mixed with waste increasing community presence increases the risk of spreading germs. Which affects health public health, especially the hygiene of the personnel carrying the workers or the workers at the disposal site which has caused illnesses such as liver disease, respiratory disease, parasitic disease or even HIV infection. Including the risk of spreading germs causing affecting public health and the general urban environment the Ministry of Public Health had therefore issued a Ministerial Regulation on Infection waste Disposal 2002, which focused on providing health facilities and local administrative organizations to manage infectious waste, to be hygienic in each step. Since collection transport and disposal of infectious waste but in the current situation it was found that the standard of infectious waste management was still lower than the standard criteria. The Ministry of Public Health, as the country's largest infectious waste production unit should be infectious waste management to find the standards according to the ministerial regulations in the years 2010 - 2013, the Ministry of Public Health, the department of health had set a target for hospitals under the Ministry of Public Health to develop to meet the standard of infectious waste management, 100% , representing and 880 operating goals (Department of Health, 2008).

Garbage or waste was one of the important problems. Due to have a direct impact on the environment and public health hit only the infectious waste problem which was considered a hazardous waste that needs to be separated from general waste. The main sources of infectious waste were hospitals, clinics and private hospitals. Health Promotion Hospital. From the research report titled infectious waste management: situations and management systems suitable for Thailand the amount of infectious waste was 20,498 tons / year. If these infectious wastes was not managed properly since collection moving and disposing may be a source of spreading germs. I was from the supervision of the infectious waste management of

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hospitals, found that some hospitals had incorrectly managed infectious waste including many health promotion hospitals and clinics that do not separate the infectious waste from general waste although the amount of infectious waste was only a small amount compared to the amount of general waste but it can spread to affect people's health. Especially the workers involved in the collection moved and disposal of infectious waste in addition, there was currently no information on the infectious waste management of hospitals.

Currently, the Provincial Health Office in the three southern border provinces there was no standardized management approach for infectious waste. That still being handled incorrectly may cause infectious waste to spread to the environment and community. Inevitably affects the environment and public health and public health workers themselves. Therefore, it was very necessary to have the relevant information to be used in planning the standard management of infectious waste in the future.

2. Methodology

Step 1 : Study from concept documents, theories and research related to infectious waste by using content analysis techniques and studying from material analysis documents.

Step 2 : Qualitative research for the development of the infectious waste management model of health promotion hospitals in the next decade by interviewing, including 24 people in charge of the infectious system control or the director of the hospital used EDFR (Ethnographic Delphi Futures Research) technique. Round 2 and round 3.

3. Materials and data collection

1. Interview guidelines for the development of the infectious waste management model of health promotion hospitals in the three southern border provinces in the next decade by means of EDFR. For interview included person responsible for the infection control system or expert with knowledge and ability and had experience in the development of the infectious waste management model of health promotion hospitals in the three southern border provinces that was a sample of everyone.

1.1 Environmental conditions in the area of health promotion hospitals in the future had the concept of development of infectious waste management. The situation of infectious waste affecting the process of infectious waste disposal and guidelines for managing infectious waste after that, gather data from interviews.

1 . 2 The development model of the infectious waste management model of health promotion hospitals in the three southern border provinces in the next decade.

2. The questionnaire was divided into 2 sets

2 . 1 Questionnaire used to collect data for the 2 nd round. After the first round of data collection by the 1 st round of interviews, the researchers used to synthesize the issues. By trying to maintain the language, theme, importance and the original idiom of the expert to create a questionnaire the characteristics of the questionnaire were a rating scale.

2.2 Quality of questionnaires

2.2.1 The researcher interviewed experts in round 1 by using a method called cumulative summarization technique, in which the interviews for each topic were to be discussed to allow experts to correct those summaries to a satisfactory level. While interviewing, the researcher recorded all the interviews and wrote them into interview reports, analyzed and

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synthesized the interviews by taking all the interviewed information to classify and group it. It was created a questionnaire, gather similar content in the same message by trying to keep the meaning of the interviewee and find the frequency of each trend.

2.2.2 Bring the completed questionnaire to the research methodology consultant and content advisor to consider the accuracy according to the content. Suitability in language usage conveyed understanding and then modified.

2. 2. 3 The third round of questionnaires used for data collection has the same characteristics as those in 2.2.1, each question was likely to be at a high level, namely the median was 3.50 or higher. Therefore, the number of questions decreased. In addition, the researcher had showed the median position Inter-Quartile Range of Expert Groups and the original answer position of each expert on each trend to get information for experts using decision before answering the questionnaire again. In addition, this also increased the reason box. It was in the case that the previous answer continues would like to show the reason for confirming the old answer as well**.**

Materials and Data Collection

1. Request cooperation from health promotion hospitals in the three southern border provinces, and civil society, totaling 24 people and went in contact to explain the purpose of the research. The research methodology require 3 steps to collect data. The first step was an interview the process. It takes 1-2 hours. Steps 2 and 3 are a questionnaire submitted by the interviewee. It was fill in the information and take approximately 1 hour. Health promotion hospitals in the three southern border provinces and 24 civil society groups were happy to cooperate. After that, they arranged appointments for interviewed and conducted interviews.

2. In the second round of data collection, the researcher made a letter requesting cooperation in response to health promotion hospitals in the three southern border provinces and civil society. Totaling 24 people, and made a letter requesting cooperation with a questionnaire by mailing part and took one for yourself data were analyzed from 24 questionnaires.

3. Data collection in the 3rd round, the researcher made a letter requesting cooperation in answering the questionnaire health promotion hospitals in the three southern border provinces and civil society. A total of 24 people had submitted letters of cooperation and questionnaires to contact the health promotion hospitals in the three southern border provinces and civil society, amount 24 copies.

4. Data analysis

The researcher used data from the second round of questionnaires to analyze the median, mode, and quartile range individually. Then selected trends with a median of 3.50 and above and created a questionnaire to collect data in the 3rd round to analyze the median, mode, the difference between the mode and the median and the quartile range for each interpretation. In considering consistency any statement with a quartile range not exceeding 1.50 and the difference between mode and median was not greater than 1.00. In the case that any statement had a quartile range not exceeding 1.50 but the difference between the mode and the median exceeds 1.00, or vice versa, it will be considered inconsistent.

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5. Results

It was general environmental conditions in the area of health promotion hospitals in the three southern border provinces in the future on in the next 10 years.

There should be construction of a garbage shelter by separating infected waste. General waste was clear and a waste incinerator that can handle 100% of infectious waste was everywhere. Infectious waste management in a health promotion hospital should had a standard waste disposal. The agency itself should not had to transport for disposal at the community hospital because of the risk of spreading the infection Self-disposal of waste at Health Promotion Hospital by self-burning may result in waste incineration areas as specified by the guidelines, which are concrete segments and a designated sieve. All staff should be aware of waste separation. It was personnel should strictly comply with standards and guidelines for infectious waste management. Performance assessments should be in accordance with established standards and guidelines. Staff do not give priority to the also management of infectious waste. There should be at least 1-2 staff responsible for managing infectious waste and trained infectious waste management. There was an infected garbage shelter that was a separate room or building separate from other buildings. There should be a systematic waste transportation and efficient, such as having a municipal car to pick up or a car from the host hospital that was a gray-contaminated garbage truck came to pick up the trash and went to get rid of next since the amount of infectious waste in the health promotion hospitals was small, if the construction of the infectious waste incinerator in the health promotion hospitals was an investment budget and was considered unnecessary. Which was a waste of money should had garbage transportation came to pick up the infectious waste each hospital promotes health systematically and was the same way to burn or destroy properly the administrative organization should be responsible for the management of infectious waste from all health promotion hospitals. The health promotion Hospital still had to solve the problem by itself which was to eliminate the infectious waste by oneself. The host hospital should be a center for the disposal of infectious waste from health promotion hospitals in the network. Health promotion hospitals should have paid attention to quality infectious waste management and realize the prevention and preservation of the environment in the community, which will cause communicable diseases in the area and toxic illness in the future to personnel and people in area.

It was the main concept of the development of infectious waste management model in health promotion hospitals in the three southern border provinces in the next 10 years.

It was set objectives, principles, guidelines and methods, including creating a vision for the development of an infectious waste management model of health promotion hospitals in three southern border provinces.

There were objectives of the development of the infectious waste management model of health promotion hospitals in the three southern border provinces in the next 10 years. To prevent the spread of infection and able to get rid of infectious waste by various methods as standard and safe for operators. And users took care of the storage and transfer of infectious waste from public health facilities correctly to manage the infectious waste as according to the plan collected the infectious waste in the same place. Which the infectious waste disposal site must passed standards to allow patients, patients, personnel and service providers safe from getting infected from infectious waste. As well as it was not spreading the infection to the environment in the community.

It was principles for the development of the form of infection management of health promotion hospitals in the three southern border provinces in the next 10 years. There was a clear policy of management organize training, education and awareness raising for service providers in the management of infectious waste. There was a clear infectious waste

management team established and pulling communities into the management of infectious waste. There were different types of infectious waste, such as medical devices and contaminated clothing, to properly manage infectious waste. Provided a place to transfer or dispose of infectious waste in public places: determine the correct disposal method with hygiene arrange for at least 1 person to be responsible for the collection, transportation and disposal of infectious waste in accordance with the rules and procedures as specified in the rules must control to comply with the rules and procedures regarding the collection, transportation or disposal of infectious waste that was specified. Equal frequency 6 integrated waste management in only one district, should focus on simplicity not complicated but effective according to the standard of infection control system.

It was guidelines and methods for developing an infectious waste management model of health promotion hospitals in the three southern border provinces in the future. In the next 10 years, there should be guidelines and methods developed an infectious waste management model to be the same. It had the same guidelines in each health promotion hospital so that the practitioners can work correctly according to the standards establish clear standards and criteria for operations, from separation, treatment, storage and destruction of infectious waste. Criteria are important in setting guidelines. The methods of operation for the relevant department to operate in the same direction with the management of infectious waste by using the kiln that was standard each type of waste was classified correctly and correctly according to the process. The amount of waste that was collected in health promotion hospitals. There was storage incidence. The risk of people in the affected community took the amount of waste and incidence. The risk was presented to the board of directors. To find ways and to manage infectious waste bring the data and format to the district committee proposed to the administrative organization. Presented to the provincial committee meeting to find a pattern for development in the province.

Vision: Service recipients were safe from getting germs from infectious waste. The service providers were knowledgeable about the disposal of infectious waste and safe from infection. The organization had standards, had clear and accepted guidelines for disposing of infectious waste. The community was involved in the disposal of infectious waste. Each type of waste was separated and destroyed correctly and with a system. Practices in the same direction see the risks that may occur in the case of incorrectly managed infectious waste. Ongoing surveillance of infections in health promotion hospitals analyzed data from surveillance by epidemiological methods. Used information from surveillance to make decisions about the development of infection control systems. Health personnel working developed and train relevant staff to provide knowledge about infection prevention and control in health promotion hospitals regularly.

It was the main process of infectious waste management of health promotion hospitals in the three southern border provinces**.**

Standards should be in accordance with the principles of infection-controlled systems and can prevent the spread of infection to the community. There was a one stop service to manage infectious waste to destroy the infection. Within the agency reduced the transportation process to the outside to prevent the spread of infection to the community. There was a principle to prevent infection in personnel, workers and prevent the spread to the environment and community. It was provided a container for infectious waste, which is red, opaque, and has black text that can be clearly read as an infected waste. Must separate the collection of infected waste at the source of the waste. Did not mix with other waste, contaminated waste of sharp materials must be placed in a bucket or box of no more than three-quarters.

Infectious waste that was not sharp materials must be packed in bags of no more than two-thirds. Then closed the lid or tie the bag tightly must arrange to have accommodation that collects infectious waste from the stomach or specific buildings separated from other buildings that were large enough to support infectious waste for at least 2 days airy not dull. The operators of the collection and transfer of infectious waste must have had knowledge about infectious waste, prevention and suppression of spread and danger. And must wore personal protective equipment while working. There was a standardized management of infectious waste in every health promotion hospital. There was a system and guidelines for waste separation. ach type was correct. There was a process to destroy each type of waste that was correct. There was an infectious waste transportation. It was the same guidelines and standards, personnel / team preparation, and equipment preparation waste separation and support containers for collecting infectious waste moving of infectious waste accommodation, infectious garbage, disposal of infectious waste cleaning the area and equipment that put infected waste.

Operations for infectious waste management of health promotion hospitals in the three southern border provinces separated each type of waste correctly general waste burned and destroyed at the health promotion hospital hazardous waste landfill at the health promotion hospital infectious waste was kept safe, not contaminated. Not spreading the infection and had the same transportation and disposal at the community hospital. The infectious waste was managed in accordance with the standards of the health promotion hospital. Must had at least 1 -2 staff, depending on the case, with qualifications not less than bachelor's degree. Must carry out the collection of infectious waste in accordance with the rules prescribed in the Ministerial Regulations. Must had accommodation included infectious waste. Which if collected more than 7 days, the accommodation must be able to control the temperature. The central office or the agency responsible for issuing standards or guidelines for managing infectious waste. To be implemented in health promotion hospitals by all the same, every where and every health promotion hospital for easy operation. There was a clear policy announcement of the management educated and rose awareness among service providers in the management of infectious waste. There was a clear infectious waste management team established. It drew communities to participate in the management of infectious waste. The amount of infectious waste that was collected in health promotion hospitals has been collected. The risk of people in the affected community.

The condition of the health promotion hospitals in the three southern border province, people should be able to participate in the management of infectious waste, found that they have participated in fund raising / mobilization in constructing the infectious waste incinerator. The public should not get involved in the management of infectious waste, as it may be contaminated with the infection. Should be an officer in the department that has been trained or taught to provide knowledge about infectious waste management to be able to act correctly. It was provided opportunities for communities and organizations in the community get involved and set a budget. To manage the environment from the local area used as much as possible have cultivated the habit of people in the area, to created good character in waste management and to recognize waste separation properly littering giving knowledge about waste management and its effects due to incorrect disposal of waste to make people aware training for educating people in the village. Because some homes had patients with chronic diseases bed of course, there must be contaminated items that were infected. Must educated regarding the separation of general waste and infectious waste. The public should separate the infectious waste correctly, not contaminated. And not discarded with general waste which was a source of spreading germs**.**

It was guidelines for the management of infectious waste from health promotion hospitals in the three southern border provinces.

It must had place that specifically supports infectious waste. There must be a mandatory written order to dispose of infectious waste. The exact date / time must be specified for the delivery of infectious waste. There was equipment support for personnel to prevent infection. Provided training for knowledge collection / disposal of infectious waste managed infectious waste at the Health Promotion Hospital Itself provided a container for the infectious waste that was red, opaque and had a black message. It can be clearly read that the infectious waste must be collected separately at the source of the waste. Did not mix with other waste. It was contaminated waste must be packed in sharp containers must arrange to have accommodation that collected infectious waste that was a specific room or building separate from other buildings. Moving an infected waste requires a cart. Workers in the collection of infectious waste must had knowledge about infectious waste, prevention and stop the spread of infection. Waste must be collected regularly on the specified date and time. In health promotion hospitals that were not yet ready to manage infectious waste infectious waste should be transported and implemented in accordance with guidelines to prevent the spread of infection. Destruction by burning at the hospital of the community.

It was guidelines for managing the effects of infectious waste from health promotion hospitals in the three southern border provinces.

There was a clear policy announcement of the management. Organize training to provide knowledge and created awareness among service providers in managing waste. Infectious had established a clear infectious waste management team. Pulling communities into the management of infectious waste the amount of waste that was collected in health promotion hospitals. Take the amount of waste and incidence the risk was presented to the committee to find ways to manage infectious waste. Bring the data and format to the district committee submitted to subdistrict administration organization. Presented to the provincial committee meeting to find a pattern for development in the province. There was personnel / team preparation and equipment preparation. Waste separation and supported containers for collecting infectious waste moving of infectious waste accommodation, infectious garbage, disposal of infectious waste cleaning the area and equipment that put infected waste. The collection of infectious waste must be suitable in a bin with a sealed lid. Personnel were able to separate the garbage correctly. There were clear waste disposal guidelines that can be treated. Able to prevent the spread of infection to the community in transportation to destroy by burning at the community hospital. There should be clear transport guidelines, standardized methods of transmission took the infected waste that had been separated for disposal by not mixing with general waste. It was the garbage collector must wear the protective equipment correctly while working. Workers did not have incidents while collecting infectious waste. Encourage people to litter correctly. Health promoting hospital personnel should be managed correctly according to standards. Divide staff with responsibilities in writing. There were ongoing follow-up meetings, for example, every 3 months or every 6 months, providing training to prevent infection and waste separation. Summary of written guidelines, there were announcements in the workplace in the same direction.

It was concepts of management styles of infectious waste from health promotion hospitals in the three southern border provinces.

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Received 05 March 2021; Accepted 01 April 2021.

Health promotion hospitals in the three southern border provinces were small-scale health promotion hospitals in the form of dealing with infectious waste, therefore teasing at community hospitals in the same district to prevent the spread of infection. Management was correct and wasted budget by reason. It was set clear standards and criteria, from separation, treatment, storage and disposal of infectious waste. Explain to the operator the standards and criteria for handling infectious waste. Giving knowledge about infectious waste management defense let the workers know. There was monitoring and evaluation of the performance of the staff in the operation. The management of infectious waste was in accordance with the guidelines and measures laid down. There was a physical examination for the staff at the management of the infectious waste management at least 1 time / year. When the worker had an accident at work, such as sharp objects and low blood pressure incident shall be reported to the commander as well as the treatment plan for the victims. At present, it should be burned and destroyed at the community hospital. Every place as according to the jurisdiction because can eliminate the infection from the residue the amount of infectious waste is collected in the health promotion hospital. There was storage incidence. The risk of the people affected by the community, the amount of waste and the incidence was presented to the district committee and the provincial committee to find a model for the management of infectious waste.

General environmental conditions in health promotion hospitals in the three southern border provinces in the future in the next 10 years of health promotion hospitals in the three southern border provinces through the cooperation of relevant personnel. There should be construction of a garbage shelter by separating infected waste. General waste was clear and a waste incinerator that can handle 100% of infectious waste is everywhere. Infectious waste management in a health promotion hospital should had a standard waste disposal. The agency itself should not have to transported to dispose of at the community hospital because of the risk of spreading the infection self-disposal of waste at a health promotion hospital by self-incineration may be done in the incinerator area as prescribed by the guidelines, including concrete segmented wells and a designated sieve.

The main concept of the development of the infectious waste management model of health promotion hospitals in the three-southern border province in the next 10 years was the determination of objectives, principles, guidelines and methods. It was including creating a vision for the development of an infectious waste management model of health promotion hospitals in three southern border provinces. To prevent the spread of infection and able to get ridded of infectious waste by various methods as standard and safe for operators. The users to take care of the storage and transfer of infectious waste from public health facilities correctly. The principles of the development of infectious waste management models have been announced as clear policies by the management. Organize training, education and awareness raising for service providers in the management of infectious waste. There was a clear infectious waste management team established and guidelines and methods of development.

There should be guidelines and methods to develop an infectious waste management model in the same way. It had the same guidelines in each health promotion hospital so that the practitioners can work correctly according to the standards. Establish clear standards and criteria for operations, from separation, treatment, storage and destruction of infectious waste. Creating a development vision service recipient were safe from getting germs from infectious waste. The service providers were knowledgeable about the disposal of infectious waste and safe from infection. The organization had standards, had clear and accepted guidelines for disposing of infectious waste.

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Received 05 March 2021; Accepted 01 April 2021.

It was infectious waste management process of health promotion hospitals in three southern border provinces standards should be in accordance with the principles of infection control systems and can prevent the spread of infection to the community.

Within the agency reduced the transportation process to the outside to prevent the spread of infection to the community. There was a principle to prevent infection in personnel, workers and prevent the spread to the environment and community. Provide containers for infectious waste which were red, opaque and had black text that can be clearly read as infectious waste. Operations for managing infectious waste separated each type of waste correctly general waste burned and destroyed at the health promotion hospital the conditions of the Health Promotion Hospital in the three southern border provinces, people should have deserved to be involved in the management of infectious waste participate in fundraising / mobilization to build an infectious waste incinerator.

The guidelines for managing infectious waste of health promotion hospitals in the three southern border provinces must had a place. That specifically supports infectious waste there must be a mandatory written order to dispose of infectious waste. The exact date / time must be specified for the delivery of infectious waste. There was equipment support for personnel to prevent infection.

The approach to manage the impact of infectious waste from health promotion hospitals in the three southern border provinces was to raise awareness. Regarding the management of the impact of infectious waste at health promotion hospital, for example, separating infectious waste properly proper storage and transportation of infectious waste including preventing the spread of infection to the community to solved problems and find preventive measures in the future there was a clear policy announcement of the management. Organize training, knowledge and create awareness for service providers in infectious waste management. There was a clear infectious waste management team. Pulling communities into the management of infectious waste the amount of waste that was collected in health promotion hospitals.

Concepts of management styles of infectious waste from health promotion hospitals in the three southern border provinces it sets clear standards and criteria, from separation, treatment, storage, transportation and disposal of infectious waste. Health promotion hospitals in the three southern border provinces were small health promotion hospitals that deal with infectious waste, so tease at community hospitals in the same district to prevent the spread of infection. It was management correctly / correctly, and wasteful of budget by using clear standards and criteria for separation, treatment, storage and disposal of infectious waste explain to the operator the standards and criteria for handling infectious waste.

6. Discussion

The infectious waste management model of health promotion hospitals in the three southern border provinces in the next 1 0 years was the purpose of the development of the infectious waste management model of health promotion hospitals in the three southern border provinces. It was model development principles guidelines and methods for model development and creating a vision for the development of infectious waste management for implementation and evaluation of the progress of operations.

The main process of infectious waste management of health promotion hospitals in the three southern border provinces was the operation schedule for infectious waste management of health promotion hospitals in the three southern border provinces. The condition of the health promotion hospital that people should participate in the management of infectious waste the most consistent and most likely trend was personnel / team arrangements and

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equipment preparation. There was a process to destroy each type of waste that was correct. There was an infectious waste transportation with the same guidelines and standards with one stop service for infectious waste management to destroy the infection must separate the collection of infected waste at the source of the waste. Do not mix with other waste. Conditions of health promotion hospitals in the three southern border provinces the most consistent and likely trend was to participate in fundraising / mobilization in constructing an infectious waste incinerator. Consistent with Usanee Uya Sathien, Pleonpit Prom Mali and Somwang Dan Chaiwijit (2000) conducted a study on "Infected waste management in Siriraj Hospital. The results of the study showed that the amount of waste from the infectious waste bags of the whole hospital was 833.70 kilograms per day. The rate of production of garbage from infectious waste bags was approximately 0.50 kilograms per day (think of the actual bed). When separating common waste that was mixed out. The remaining was 445.97 kilograms per gram of waste. The rate of infectious waste production was approximately 0.28 kilograms per bed per day. Inpatient wards were the most source of waste produced from infected trash bags. The amount of infectious waste after separating general waste was reduced by 387.73 kilograms per day, representing 46.51 percent, or about 140 tons per year. Plastic and rubber gloves were the components of the most infectious waste or the second highest level of infectious waste from all sources.

Guidelines for the management of infectious waste from health promotion hospitals in the three southern border provinces was to promote and support the readiness in managing infectious waste of hospitals continuously promoting health with the transportation of infectious waste destruction of infectious waste the most consistent and possible trend was to have a place. That specifically supports infectious waste there must be a mandatory written order to dispose of infectious waste. The exact date / time must be specified for the delivery of infectious waste. There was equipment support for personnel to prevent infection. It was provided training for knowledge collection / disposal of infectious waste manage the infectious waste at the health promotion hospital by oneself. Provided a container for infectious waste that was red, opaque, and had black text that can be clearly read as an infected waste. Must separated the infected garbage only at the source of the waste. Do not mix with other waste, in accordance with Karun Chandrangsu said that has been reported by officials. Meet villagers who had a professional rubbing HIV / AIDS which assumed that the villagers may go to rummage and then hit the syringe or debris from the hospital without knowing it and getting infected.

The guidelines for managing the effects of infectious waste from health promotion hospitals in the three southern border provinces were raising awareness. Regarding the management of the effects of infectious waste from health promotion hospitals, such as the correct separation of infectious waste proper storage and transportation of infectious waste including preventing the spread of infection to the community solved problems and found preventive measures in the future the most consistent and most likely trend was a clear management policy. Workers did not have incidents while collecting infectious waste. Training to educate and raise service providers awareness on infectious waste management pulling communities into the management of infectious waste the garbage collector must wear the protective equipment correctly while working. Consistent with the research of Ketkan Saensri Mahachai (2010) conducted a study on infectious waste management of staff in private hospitals: in the Chiang Mai municipality the study found that 1. The condition of infectious waste management of staff in private hospitals that did not accept overnight patients is at a good level. 2. Support from nursing owners in the management of infectious waste and. The awareness of the staff on the infectious waste management had an influence on the infectious waste management of the hospital staff with statistical significance at the

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level of 0.05. Knowledge of infectious waste management of hospital staff experience in working period regarding infectious waste management and receiving training on infectious waste management there was no significant influence on the management of infectious waste in hospitals.

The concept of the situation management model of infectious waste from health promotion hospitals in the three southern border provinces. Tt set clear standards and criteria, from separation, treatment, storage, transportation and disposal of infectious waste. The most consistent and possible trend was self-defense. Let the workers know there was storage incidence. The risk of the people affected by the community, the amount of waste and the incidence was presented to the level committee and the provincial committee to find a pattern for the management of infectious waste. Giving knowledge about infectious waste management there was monitoring and evaluation of the performance of the staff in the operation. There was a physical examination, staff at the management of infectious waste at least 1 time / year. The amount of infectious waste in the health promotion hospital was collected. Consistent with Somdej Wetwithan (2008) conducted a study on "Situation and management of infectious waste from public health facilities that do not accept patients overnight in Phitsanulok Province. The study found that most public health facilities that did not recognize patients overnight were collected separately from general waste. And there was a special place for storing the infectious waste while waiting for disposal. The most used collection container was a plastic bag in most cases it was stated that the infected waste was eliminated by itself. The methods used to eliminate that are mostly burn. 83.60 percent of the health centers will use cement-type circular kilns, while 42.42 percent of private hospitals will be burned at the furnaces of the public health facilities that operate. The rest will be discarded and disposed of with general waste. The local government that has self-disposal but using the same methods as general landfill disposal, such as landfill and un-sanitary outdoor incineration from inquiring of administrators and or staff of public and private non-public health facilities that did not accept patients including local government in Phitsanulok province overall, agreed to the principle of polluters pay and were willing to pay for the collection and disposal of infectious waste if provided (92.42%).

7. Conclusion

The main concept of the development of infectious waste management model of the health promotion hospital in the three southern border provinces in the next 10 years was the determination of objectives. It was preventing the spread of infection and able to get rid of infectious waste by various methods as standard and safe for operators. The users to take care of the storage and transfer of infectious waste from public health facilities correctly and to manage the infectious waste as according to the plan guidelines and methods for developing an infectious waste management model. There should be guidelines and methods to develop an infectious waste management model in the same way. The same guidelines in each health promotion hospital so that the practitioners can worked correctly according to the standards establish clear standards and criteria for operations, from separation, treatment, storage and destruction of infectious waste. Criteria were important in setting guidelines. Methods of operation for the relevant department to operate in the same direction with the management of infectious waste by using the kiln that was standard vision of the development of infectious waste management model service recipients were safe from getting germs from infectious waste. The service providers are knowledgeable about the disposal of infectious waste and safe from infection. The organization had standards, has clear and accepted guidelines for disposing of infectious waste. The community was involved in the disposal of infectious waste. It was the main process of infectious waste management of health promotion hospitals in three southern

border provinces standards should be in accordance with the principles of infection control systems and can prevent the spread of infection to the community. There was a one stop service to manage infectious waste to destroy the infection and within the department reduced the transportation process to the outside to prevent the spread of infection to the community.

Guidelines for the management of infectious waste at health promotion hospital in three southern border provinces must had place that specifically supports infectious waste. There must be a mandatory written order to dispose of infectious waste. The exact date / time must be specified for the delivery of infectious waste.

8. **Acknowledgements**

Thank you to Yala Rajabhat University was providing a place to conduct research for the original manuscript. Health promotion hospitals and related agencies in conducting research thank you for coming here.

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