

## **Proactive Development Causing a Productive Network of Raw Materials Safety for Hospitals in Thailand**

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**Abstract:** Development of hospital's food safety apart from the safe production process, there is a need to produce from raw materials without hazardous contamination which dangerous for consumers' health. But receiving safe raw materials truly is still difficult for hospital then this research has a propose to develop the productive organization group of raw materials safety for hospitals in order to improve hospital's catering services quality to be safe and helps to reduce illness that might cause from contaminated raw materials. The qualitative research has been used for this research methodology and the example group was four prototyped hospitals of food safety in Thailand, data collection was done by a deep questioning, group discussion (Focus group) and observation from people who have their works relating to food safety development of the four hospitals. Content analysis was used for data analyzing in order to find methodological development and supportive factors that leading to an achievement, there is a finding that the idea of hospital's food safety development causes a proactive development in producing productive network of raw materials safety. Moreover, the strategies that makes hospitals to succeed in developing productive network of raw materials safety which is caused from: the active strategy usage of business community with pricing mechanism, the change of pricing system and convenient way of payment; participation and co-ordination with out-side related network such as the departments of agriculture, livestock and the group of agriculturists who together help in planning, exchanging data between hospitals, departments of livestock, agriculture and the group of agriculturists, they force to get a change of safe production process and makes income for community agriculturists group; the change of inside hospital's administration and management system by changing food menus to be suitable with seasonal raw materials and must be available locally; the supports from hospital's president and food safety development team making hospitals are able to produce and expand the network of producers of safe raw materials for hospitals and out-sided consumers and as well causing a production process of raw materials safety and is friendly to the environment.

**Key words:** Hospital, network, proactive development, raw materials safety, food safety, food control

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### **INTRODUCTION**

Using chemicals to accelerate farming growth has cause an effect on food chain and environment as well as using chemicals in the steps of food transformation are inspected of chemical contamination which is dangerous for human health such as insecticide, fungicide, fluid catalytic cracking red meat, preservatives against fungi and borax compounds which they are contaminated in raw materials and transformed foods. Then Thai government has specified food safety policy in order to control chemicals in raw materials and places where produce foods (ISO, 2005), Ministry of Public Health has brought

food safety policy to operate at hospitals because of all hospitals have many patients, staffs and visitors come for catering services.

Hospitals are close to a risk of contamination in food chain because of the factors that might cause physical contamination for examples chemicals and germs that could be contaminated from inside hospitals and come out-side, then there must be a strictly control for both aspects of academic technique and operation (Hancock, 1999). The development of hospital's food safety needs to be qualitatively controlled from the beginning process of raw materials usage throughout food production (Hamprecht and Daniel, 2005), it is

because hospitals need a massive amount of raw materials for food seasoning daily then hospital unavoidably are an important mechanism that can make raw materials safety, improvement that causes productive process of raw materials safety by using mechanisms of pricing and participatory alliance in producing raw materials safety. Additionally, apart from having had raw materials safety, there is still capability of producing productive system for environmental preservation (Lindgreen and Hingley, 2003; Fearn and Hughes, 1999), quality control of raw materials must construct standard criterions for raw materials safety and connecting to the local alliance's participation such as consumers, producers, controllers of raw materials safety standard, raw materials government inspectors which is very much helpful in causing an improvement of raw materials safety (Hunt *et al.*, 2005), community business promotion for the group of agriculturists causes group gathering which is convenient for technical and methodological development and helps in developing productive process of raw materials safety sustainably (Hobbs *et al.*, 2002; Beulens *et al.*, 2005).

Then researcher needed to study the usage of hospital as motivator that causes a productive network of raw materials safety and achieving conditions that are received from proactive development strategies of hospitals is being a part of knowledge that can applied as an example for hospitals.

The productive network development of raw materials safety, apart from having had safe raw materials for hospitals' cooking, there is still beneficial for out-side consumers and supportive in producing a productive process of raw materials that are friendly to the environment also.

#### **The research's purposes:**

- For studying the development process that causing a productive network of raw materials safety for hospitals
- For studying the supportive factors that have effects on hospitals' achievement in developing productive network of raw materials safety

#### **Concept idea:**

- Raw materials safety causes hospitals' food a safety
- Hospitals' proactive development such as commercial strategy usage, a change of hospitals' administration and management system and the production of participatory network between out-side related departments and the group of raw materials producers causing a productive network of raw materials safety for hospitals

- Supportive factors that motivate the network of raw materials safety to reach an achievement which is caused from the supports of hospitals' president and food safety development team

### **MATERIALS AND METHODS**

This research is a qualitative research in the model of description.

**Population:** Such as the provincial hospitals in Thailand where under management of The Department of Public Health.

**Sample groups:** Researcher has particularly selected purposive sample by choosing the prototype hospitals' food safety of the ministry of public health which have been developing food safety practically and assessed from ministry of public health to be the sample hospital in food safety development which are four hospitals such as Chiang Rai Prashanukroa Hospital, Knonkaen Hospital, Rajchaburi Hospital and Songkra Hospital. The group of information givers are people who relatively work with hospitals' food safety development that are:

- Hospitals' administrators
- Hospitals' food safety management team that professionally composed of nutritionist, public health academican, health promotion specialist, infectious control nurse
- The out-side hospital supportive group are department of agriculture's officers, department of livestock's officers, group of agriculturists and the distributors of transformative food for hospitals
- Groups of hospitals' consumer which are patients, hospital's staffs and hospital's visitors in the total amount of 71 people

**Research instruments:** Instruments that used in this qualitative research were questionnaire, memorandum form of group discussion and observation form of hospital's activities operative areas. Researcher has educated conceptual theories and other researches in order to construct a concept idea and model of semi-structure questionnaire.

**Data collection:** In depth interview, focus group and observation from the real working areas were used as data collection and followed by hands recording, tape recording, photo recording as well as empirical documentary which composes of data givers in the

number of 4 groups as following: in depth interview for hospitals' president in the contents of concept idea in developing food safety, hospitals' promotion in various aspects, operation and achievement.

In depth interview for food safety development team in the contents of hospital's food safety development process, raw materials procurement, development of productive network of raw materials safety, specification of food safety standard criterions, quality control and inspection system of hospital's raw materials and foods.

In depth interview for focus group, hospital's supportive groups of food safety development who come from out-sided hospital which are officers from departments of agriculture, livestock, the group of agriculturists who produce raw materials for hospitals and the group of transformed food entrepreneurs for hospitals.

In depth interview for focus group and consumer group which are patients, patients' relatives, hospitals' staffs and visitors.

**Data analysis:** Data were qualitatively analyzed and concluded by content analysis and theme development connecting relationship of major conclusions in the causal form supportive parts of achievement and the happened results (Denzin and Lincoln, 2005) and as well empirical documentaries in order to jointly analyze the happened effects systematically and finalizing by research descriptive conclusion.

## **RESULTS AND DISCUSSION**

Research result has the finding that all four hospitals have a concept idea about food safety must be produced from safe raw materials which is a cause for hospitals to procure raw materials safe in hospital's food cooking, on the other hands a various raw materials safety are difficultly procured then hospitals use proactive development strategy and the change of hospital's administration and management systems in order to acquire those raw materials safety. The hospital's proactive development is concluded as following:

**Strategic usage of community business:** According to the reasons that hospitals need the massive amount of raw materials in food cooking daily, then hospitals are needed to produce motivation for producers who are interested to sell their raw materials to be flexible for hospital's needs by using pricing mechanism to specify pricing together between hospitals and group of agriculturists to directly change buying system with raw materials producers, to change hospital's payment system

to be more convenient and quicker in order to produce motivation for the group of agriculturists and have positive effects on out-sided consumers according to the research result of the usage of business strategy to help in sustainable producing a productive process development of raw materials safety, community business promotion which would cause group gathering in technical development and managing methodology in order to acquire raw materials safety.

**Strategic usage of participatory:** Strategic usage of participatory co-ordination with related out-sided departments and group of agriculturists in the communities such as:

Participation with officers from the departments of agriculture, livestock which helps hospital receiving data of production sources, the data exchange of hospital's needs of raw materials with raw materials in the local areas which is useful for hospitals to do a planning of hospital's food menus. The helps in knowledge training for groups of agriculturists about safe raw materials production by officers from the departments of agriculture, livestock and quality inspection and safety of raw materials help in cause production sources of raw materials in the areas.

Usage of participatory methodology with group of agriculturists in communities by planning and managing together between hospitals and group of agriculturists. To let groups of agriculturist to be informed of typing and amount numbers of raw materials that hospitals need in order to make a planning in cultivation and harvesting and also hospitals support group of unemployed in communities for examples groups of elderly, disability and housewife, etc., to cultivate organic vegetables and beneficially sell to hospitals and making hospitals to be able to produce and expand more production sources of safe raw materials as well as helps to increase work positions in communities causing sustainability and good relation between hospitals and the groups of agriculturist.

These are the achieving conditions that helps hospitals making more productive network of safe raw materials for hospitals which is accorded with Hamprecht and Daniel (2005) who found that quality control for raw materials needs to be connected with group of raw materials producers, giving knowledge in producing, inspecting raw materials and contamination and the research result of Lindgreen and Hingley (2003) found that developing raw materials to be safe needs to have criterion specification and participatory operation between users of raw materials, animal welfare, agriculture welfare, government standard food control unit and agriculturists organization which is very much helpful for improving a safe production process.

**The change of hospital's food menus:** Hospitals do a planning with group of agriculturists by specifying food menus according to typing and amount of available raw materials safety in the local areas and hospitals also create opportunities in communicating with group of agriculturists all the times. In case of groups agriculturists could not prepare raw materials as hospitals' requirements and need to use other raw materials for replacement, hospitals would make a sudden change of food menus in order to be suitable with available raw materials. Making hospitals' operation to be flexible is highly important for hospitals to be more capable of procuring safe raw materials for food cooking.

**Participatory process usage:** Participatory process usage in order to adjust production process of transformed food safety due to the fact that hospitals buy the transformed food from out-side such as fruit juices, meat balls, sausages and others that are produced from out-sided entrepreneurs. Hospitals collaborate with food inspectors to visit production factories of transformed food in order to inspect processes of production, containing and transportation follows by randomly inspecting and notifying data that needed to be improved for entrepreneurs to be aware of. Hospitals setting up knowledge training and opportunity to visit and study the production factories, steps of production process of hospital's food safety in order to improve their businesses and build up motivation by giving certificates for entrepreneurs who could make improvement to meet the standard criterions of food safety.

Participation in developing production process of safety transformed food between hospitals, government departments and entrepreneurs causing an improvement on production process of safety transformed food for consumers which is accorded with the research of Lindgreen and Hingley (2003) who found that to develop raw materials to be safe must construct standard criterions and qualitative safety inspection of raw materials are needed to inform backwardly to producers for the improvement of safe production process.

**Supportive factors:** Supportive factors that cause hospitals an achievement in developing productive network of raw materials safety which caused from the important factors as following: supports of hospital's president which the study found that all the four hospitals' presidents have good attitude for food safety development and agreed that hospitals are needed to develop food safety services for patients and staffs, the hospitals' presidents give their support in the aspects of budget to buy raw materials safety, promotion of

proactive activities in order to develop the productive network of raw materials safety by agreeing to improve the buying and payment system to be convenient and quick which according to the research of Manning *et al.* (2006) who found that the promotion of resources in many aspects of hospitals' president causes food safety an achievement and receiving the qualitative food safety assurance.

Factor in the aspect of hospital's food safety development team, there is a finding that the food safety development team is the backbone in hospital's proactive activity development by specifying a standard safety criterion of hospital's raw materials and food and follows by constant assessment. There are participation with other groups, strong intention, team work and leadership that make the food safety development team is capable of participating with other sections in both of inside and out-sided hospital which according to the research result of Manning *et al.* (2006) and Savic and Pagon (2008) who found that culture of organization and leadership as in the part of team help hospitals' food safety development teams achieved in working operation.

## CONCLUSION

The development of food safety by using safe raw materials for hospital's food cooking and the strategic usage of proactive development with various methods such as community business strategy, participation with out-sided departments, transformed food entrepreneurs and group of agriculturists, the change of hospital's administration and management system to be flexible, promotion of hospital's president and food safety development team which cause the hospitals more achievement in developing productive network of raw materials safety, making an income for agriculturists in the areas, building up a good relation between communities and hospitals.

This strategy of proactive development, other hospitals could take and apply in order to get productive network of raw materials safety to be friendly to the environment which is good for hospitals' consumers and out-sided consumers as well.

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