

# The Importance of Community Coalition to Prevent Dengue Fever: An Ethnographic Study in Sidoluhur Village, Sleman District, Yogyakarta Special Region

---

Muhammad Sohel Rana<sup>1</sup>, Fatwa Sari Tetra Dewi<sup>2</sup>, Retna Siwi Padmawati<sup>3</sup>

<sup>1</sup>Student of International Health of Masters of Public Health, Postgraduate Program in Public Health, Faculty of Medicine, Universitas Gadjah Mada, Yogyakarta, Indonesia, <sup>2,3</sup>Department of Public Health, Faculty of Medicine, Universitas Gadjah Mada, Yogyakarta, Indonesia.

Corresponding author: [sohel.anthro176@gmail.com](mailto:sohel.anthro176@gmail.com)

---

## ABSTRACT

**Introduction:** Dengue fever is an emerging pandemic-prone viral disease in many parts of the world also in Indonesia. Java Island contributed about 71% of all cases occurring in the country. Sleman District represented nearly 30% of total infections in Yogyakarta Province. Godean sub-district contributes 89 cases in 2013 and most of them were come from Sidoluhur village. Instead of community activities Dengue cases are increasing every year. Vector control is one way to control it. This research was tried to explore how community coalition can prevent Dengue fever cases and how Dengue vector can be controlled by engaging community.

**Methods:** This research was used ethnographic study. For collecting data in-depth interview and participatory observation was conduct. Collecting data and analysis data was done simultaneously.

**Results:** Community in Sidoluhur village aware that Dengue fever is a serious health problem. With local knowledge, believes, customs, practice and attitudes community people are most influenced group. After getting fever people try to apply their own knowledge for prevention. Most of them do not know the reason of Dengue spread, how it breed, where it breed also how to control. Practices of Dengue prevention like Friday cleaning movement, mosquito eradication flick and child health task force are good programs but absent of continuity so Dengue cases are increasing. Cultural and medical health seeking behaviors were seen among the people. For building coalition capacity sharing information is also immobile.

**Conclusion:** Dengue fever is still remaining a strong factor that influences public health care in Sidoluhur village. To control Dengue fever capacity building, policy implementation based on community, networking among stakeholders, blending the cultural and medical knowledge of Dengue and overall comprehensive Dengue control approaches need to be developed.

**Keywords:** Dengue fever, community coalitions, social capital, working group.

## ABSTRAK

**Pendahuluan:** Demam Dengue adalah penyakit viral yang berpotensi menimbulkan pandemik di seluruh dunia termasuk Indonesia. Pulau Jawa menyumbang sekitar 70% dari seluruh kasus di Indonesia. Kabupaten Sleman menyumbang hampir 30% total infeksi di Provinsi Daerah Istimewa Yogyakarta. Kecamatan Godean menyumbang 89 kasus di tahun 2013 yang sebagian besar berasal dari desa Sidoluhur. Meskipun berbagai kegiatan pencegahan sudah dilakukan oleh masyarakat, kasus demam Dengue terus meningkat setiap tahunnya. Pengendalian vektor nyamuk merupakan salah satu kegiatan yang dilakukan untuk mencegah

demam Dengue. Penelitian ini bertujuan untuk mengetahui bagaimana koalisi masyarakat di desa Sidoluhur dapat mencegah kasus demam Dengue dan bagaimana vektor Dengue dapat dikendalikan dengan melibatkan masyarakat.

**Metode:** Penelitian ini merupakan Studi Etnografi. Pengumpulan data dilakukan dengan wawancara mendalam (*in-depth interview*) dan pengamatan partisipatif. Data dianalisis dan disajikan secara deskriptif.

**Hasil:** Masyarakat desa Sidoluhur menyadari kalau Demam Dengue merupakan masalah kesehatan yang serius. Tetapi, dengan pengetahuan lokal, kepercayaan, kebiasaan, praktik dan sikap yang dimiliki, masyarakat awam merupakan kelompok yang rentan untuk terjangkit demam Dengue. Apabila terkena serangan demam, masyarakat akan mencoba menerapkan pengetahuan yang dimiliki untuk mengobati demam dan mencegah perkembangan penyakit. Sebagian besar masyarakat tidak tahu bagaimana cara penyebaran Dengue, bagaimana dan di mana nyamuk berkembang biak dan bagaimana cara mengendalikan perkembangbiakan nyamuk tersebut. Praktik-praktik pencegahan demam Dengue seperti Gerakan Jumat Sehat, Pemberantasan Jentik Nyamuk dan satuan Tugas Kader Kesehatan Cilik merupakan program yang bagus tetapi tidak dilaksanakan secara kontinu sehingga kasus demam Dengue terus meningkat. Budaya dan kesadaran masyarakat untuk mencari pertolongan medis sudah cukup baik. Pengembangan kapasitas koalisi masyarakat perlu ditingkatkan karena kurangnya *sharing* informasi dalam masyarakat.

**Simpulan:** Demam Dengue merupakan faktor kuat dalam menentukan pelayanan kesehatan masyarakat di desa Sidoluhur. Untuk mengendalikan kasus demam Dengue, pembangunan kapasitas, implementasi kebijakan berdasarkan kondisi masyarakat, kerjasama antar *stakeholder*, menyelaraskan budaya dan pengetahuan medis tentang Dengue dan pengendalian Dengue dengan pendekatan komprehensif perlu untuk dikembangkan.

**Kata kunci:** demam Dengue, koalisi masyarakat, modal sosial, kelompok kerja.

---

## INTRODUCTION

Dengue is fast emerging pandemic-prone viral disease in many parts of the world which affects urban and suburbs poor areas, in tropical and subtropical countries<sup>1</sup>. It is a viral diseases transmitted by *Aedes* mosquitoes, usually *Aedes aegypti*. Virus causing Dengue infects nearly 120 million of people living 110 countries of the world<sup>2</sup>. Dengue fever is one of the most rapidly rising mosquito transmitted infections in the world<sup>3</sup> and identified as re-emerging diseases in Southeast Asia<sup>4</sup>. Over 2.5 billion people – over 40% of the world's population – are now at risk from Dengue<sup>5</sup>. WHO currently estimates there may be 50–100 million Dengue infections worldwide every year causing 24,000 of deaths of an estimated 500,000 cases

of Dengue hemorrhagic fever (DHF) / Dengue shock syndrome (DSS) requiring hospitalization each year, roughly 5% die. Dengue cases have increased 30 times in last 50 years<sup>6</sup>.

In Indonesia Dengue Haemorrhagic Fever (DHF) was first recognized in the cities of Jakarta and Surabaya in 1968. In 1985 twenty six of 27 provinces were affected by Dengue fever<sup>7</sup>. Particularly in Java which is most populated island of Indonesia which contributed about 71% of all cases occurring in the country in 1982, 84% in 1983, and 91% in 1984<sup>8</sup>. In 2010 total 5121 cases were found in Yogyakarta special region (DIY) where 33 people died. In 2011 and 2012 cases were decreased but 2013 it was in increasing trend. Until August 2013, 2739 cases were found in Yogyakarta and at the same time

15 people were died. Cases in Sleman District from 2002-2006 represented nearly 30% of total infections in Yogyakarta Province, with Bantul, Kulonprogo, and Gunungkidul districts numbering only 19.1%, 6.9%, and 8.7% of cases respectively<sup>8</sup>. Though the general patterns of DHF spatial and temporal distribution in Sleman district were known, public health practitioners and the community failed to make effective action to prevent DHF epidemics<sup>9</sup>.

In 2012 cases increased 17.4 percent with 236 cases and Godean sub-district contributed 49 cases. In 2013 until September, 2013 there is 614 cases of Dengue fever and among the cases 2 already died where Godean sub-district contribute 89 cases<sup>10</sup>. In Godean sub-district cases, Sidoluhur village contributed most of t contributes the highest cases every year.

Reduction of mosquito breeding in houses and public spaces through various measures including larval growth inhibitor and interventions against adult mosquitoes requires a continuous effort by the community<sup>11</sup>. Researcher suggest that, sustain active community participation and environmental management are probably the most effective at preventive Dengue epidemics. To control *Aedes aegypti* behavioral change is very important and need community coalition design and implementation of strategies<sup>11</sup>. The evidence base for community involvement in Dengue vector control was still weak<sup>12</sup>.

Coalition enhances state and local efforts by mobilizing communities, advocating for policies and changing social norms. Coalitions bring together individuals and organizations with diverse skills and expertise to address a specific issue<sup>13</sup>. A coalition is used to refer to an alliance between groups or stakeholders. Community coalition as a group of individuals and organizations from a community who

have come together to pursue goals aimed at bettering the community. It is a powerful vehicle for engaging community members in improving health, education, public safety, economic development, etc.

The general objective of the research was explored and described the community coalition for preventing Dengue fever in Sidoluhur Village. Inside general objectives researchers tried to understand the cultural knowledge of Dengue, practice of community coalitions to prevent Dengue, how culture related to community coalition, how culture related and channels of Dengue fever information among the people.

## MATERIALS AND METHODS

A critical approach of ethnography was applied for this research where observation, in depth interview and focus group discussion (FGD) was used as data collection tools. The research was conducted in Sidoluhur Village, Sleman district, Yogyakarta Special Region which is a Dengue endemic prone area. The key informants of this study were community people (five people), community leader (two people-head of sub village and head of village), government health officials (one- environmental officer from health office, health worker (three people from PKK cadres) who work for coalition to prevent Dengue through community coalition building. Besides that, for observation all age group of people were observed.

Snowball sampling was used as sample technique to enhance understands to facilitate the identification of cases of interest. On the other hand, deviant cases sampling also used for community people interview to get information about Dengue especially who has already got Dengue fever or which families already get cases like this was get priorities. After collecting

data, it was coded by using open code software then data was analyzed according to research objectives. Ethical clearance was obtained from Medical and Health Ethic Review Committee (MHERC) in Faculty of Medicine, Universitas Gadjah. Informed consents have been given by all participants in this study. Besides that, research permission was gathered from local government.

## RESULTS AND DISCUSSION

Dengue fever is a serious health problem in Sidoluhur village and Pirak Mertosutan sub village. With local knowledge, believes, customs, practice and attitudes community people are most influenced group. We found out some interesting point and during the study time researcher lived there and conducted in depth interview among the community people, community leader and government health officials. This research explains the details of research findings based on following points.

### Practices of community coalition for Dengue prevention

Practices community coalition for Dengue prevention can be described based on some program like *Gerakan Jumat Bersih*, *Pemberantasan Jentik Nyamuk*, *Satuan Tugas Kesehatan Cilik (satgaskancilik)* where all programs are defined as *kerja bakti* or community service.

**Gerakan Jumat Bersih/Friday Cleaning Movement:** Friday cleaning is a regular community service among the people in program. People are gathered on Friday morning to clean the environment, clean their house, public place etc. This program is directed by head of sub village. Clean Friday expect a culture development into healthy Friday. People told

that, the initiatives from community leaders are not taken regularly.

“Community leader like head of sub village or health worker are not active for Friday Cleaning Movement regularly. Community people wait for calling (*Tokoh masyarakat seperti kepala dusun atau kader kesehatan tidak aktif untuk program rutin jumat bersih. Masyarakat setempat menunggu dipanggil oleh tokoh masyarakat*)”

On the other side, community leaders are blaming community people that, they all are busy with their works. They do not come when program was run. Not all people but who are depend on daily income they are not interested this Friday program.

“Community people are busy with their own work. They do not want Friday cleaning regularly (*Masyarakat sibuk dengan pekerjaan masing-masing. Mereka tidak mau ikut rutin Jumat bersih*)”

The main objectives of Friday Cleaning Movement is generating a sense among the people in Pirak Mertosutan based on hygiene's for health and clean environment. In the study area people have some fixed place for putting waste. But people like to through waste here and there. Some place waste pot is already full in long time but there is no responsible person to take it in proper place. Some place has empty waste basket case.

**Pemberantasan Jentik Nyamuk/Mosquito Flick Eradication:** Eradication of mosquito larvae is an action taken to eliminate or eradicate the eggs, larvae, and pupae of mosquitoes in various ways with the aim to reduce the growth of mosquitoes in the environment. *PKK* cadres are responsible person for this program where they work

together with *puskesmas*/public health center. *Pemberantasan jentik nyamuk* is every three months program where *PKK* cadres visit every family in community, their toilets, water storage and possible Dengue breeding place. *PKK cadres* destroy the breeding place by using Abate (type of medicine) and most of the time manually. For eradication breeding place *PKK Cadres* use torch and some time apron, except this they have no technical tools for this.

“Health worker work together with community health center which is every three months program. Usually, health worker destroy the mosquitos breeding place (*Kader PKK bekerjasama dengan Puskesmas untuk pemberantasan jentik nyamuk setiap tiga bulan. Biasanya Kader PKK memeriksa dan membersihkan kamar mandi, tempat simpan air dll. Kita bersihkan tempat larva nyamuk*)”

Besides that, health workers give information about 3M (*menguras/drain, mengubur/burying and menutup/close*) among the people. Health worker also give information about mosquito breeding place like shower, drums, water storage, refrigerator, flower pot etc. once a week. This *Pemberantasan jentik nyamuk* program is supervised by health center people in every three months. People clean their bathroom or breeding place when they hear people are coming to visit.

“Community people clean their bathroom when people from *puskesmas* visit the community. They do not care about health workers (*Masyarakat membersihkan kamar mandi mereka ketika orang-orang dari puskesmas mengunjungi masyarakat. Mereka tidak peduli dengan petugas kesehatan*)”

**Satuan Tugas Kader Kesehatan Cilik/Child Health Task Force:** This is a group of student who are enrolling in elementary school especially from grade four and five. This group is consisting of 16 people. Before works as *satgaskincilik* health center trained them and four things they learn from training. These are- sensitive environment, help the environment to flicks mosquito, waste management and reduce of breeding place. After getting training they work on community.

“The main purposes of the *satgaskancilik* are making awareness among the school going children. It also helps making leadership for Dengue prevention (*Tujuan utama dari satgaskancilik adalah membuat kesadaran di kalangan anak-anak sekolah. Hal ini juga membantu membuat kepemimpinan untuk pencegahan demam berdarah*)”

When people got Dengue fever and if they admit in hospital, hospital authority sent letter to nearest health center for taking action against Dengue fever. Besides that, they do socialization program for Dengue prevention like where Dengue mosquito can breed, how to prevent etc.

“If someone got Dengue fever and admit in hospital, the hospital authority send letter to community health center to take action against Dengue fever (*Kalau ada sakit demam Dengue dan masuk ke rumah sakit, rumah sakit mengirimkan surat untuk Puskesmas untuk mengambil tindakan terhadap demam berdarah*)”

Based on community coalition practice for Dengue prevention, among the stakeholder’s opinion are different. Community people blame to health center where health center blame people. Every stakeholders have own program for Dengue prevention.

People in study area have not having clear concept about Dengue fever. People think that, among the stakeholders communication is not good. Lack of intersectoral activity makes Dengue as a big problem. Among the stakeholder less responsibility are seen to work against Dengue fever. Sharing information about Dengue prevention among the community people is not continuously conducted and it is health centers duty but this program is a rear and people are not happy with health centers performance.

### **Cultural perception of Dengue fever, seeking behavior and implication in health care**

#### **Cultural perception of fever and Dengue fever:**

A large number of people in study area believe that Dengue fever and fever almost same and breeding place and biting time also same with usual mosquito. People defined fever by their local language like Meriang, Panas, Gembreges, Semlenget and Nggregesi.

Here the meaning of every term has a little difference to identify. When they feel fever they called "*sakit meriang*". *Panas* is only felling hot where *nggregesi* is feeling hot with cold (sweating and cold). *Semlenget* is only a small feeling hot. People in Pirak Mertosutan sub village identify yellow fever as another type of fever called "*Cikungunya*" in local language. People here identify Dengue fever when fever is continuing more than three or four days.

People identify fever when they feel hot, pain in body, cold etc. Generally, they stay home until three or four days and after that if fever still continues then they go to meet with doctor.

"I felt pain in body, test was not good, and body temperature was hot and cold. I thought it is fever. That time I stayed at home until three or four days and I did not feel good then I go to doctor (*Aku merasakan*

*sakit di tubuh, rasanya itu tidak enak, dan suhu tubuh panas dan dingin. Saya pikir itu adalah demam. Waktu itu aku tinggal di rumah sampai tiga atau empat hari dan saya tidak merasa baik maka saya pergi ke dokter*)" (Dengue fever victim).

"I think Dengue mosquito only bite at night like other mosquito, for that I use some anti mosquito equipment at night (*Saya kira nyamuk DBD hanya gigit di malam seperti nyamuk biasa, untuk ini saya biasa menggunakan obat nyamuk di malam hari*)"

The general believe among the people that, Dengue mosquito can bite only at night as like other mosquitoes. For that, they take some preventive action like using coil, mats, sometimes mosquito net etc. People do not know usually when Dengue mosquito bites.

#### **Health seeking behavior for Dengue fever:**

Among the health seeking behavior people choose both cultural and medical seeking system where cultural seeking system get priority. People stay at home until three or four days of fever. If they do not feel better then people go to doctor or hospital and after examined by doctor also laboratory they now it is Dengue fever or not.

"After three or four days of fever we go to health center or hospital and after test we can know that it is Dengue fever (*Kalau demam lebih dari tiga atau empat hari baru kita ke puskesmas atau rumah sakit dan setelah periksa baru tau ini demam berdarah*)"

For curing fever people use their local knowledge like drink hot water, taking hot food than cold food which is one of the parts of their culture. For Dengue fever they do same things

like fever and especially for Dengue fever they use the term “*demam berdarah*” or Dengue fever.

“Usually I stay at home if I got fever and try to drink and eat hot food rather than cold. This is advice from my mother (*Biasa saya tinggal di rumah kalao sakit demam dan coba minun yang panas, makanan juga panas daripada tang dinging. Ini saran dari ibu saya*)”

**Implication on health care:** In health care both cultural and medical implication are seen. Most of the Dengue affected people have to meet with doctor for getting well. So, implications on medical care system are more. People blame health center is not active to their duties.

“Generally health center dose not visit the village but if the cases are many then they visit the village and give information about Dengue fever, eliminating Dengue breeding place etc (*biasanya petugas puskesmas tidak kunjung ke desa untuk DBD, tapi kalao kasusnya ada banyak mereka datang ke desa dan kasih informasi kepada masyarakat, kerjain jentik nyamuk dll*)”

A large number of the village people think, they have nothing to do to prevent Dengue fever and only health centers actions can prevent Dengue fever. A few people believe that, community activity like work together, cleaning surrounding, cleaning environment, proper waste management can prevent Dengue fever.

### **Community capacity building regarding on Dengue fever prevention and information sharing**

Capacity building on Dengue prevention in Pirak Mertosutan sub village can be described based on some points. These are:

### **Awareness building program**

Health center has program called building awareness among the people and they do it co-operation with health worker who are come from community. Health workers gathered in health centered once a month and they get information about health including Dengue fever then they back to their community and delivered the information which they got from health center.

“We health worker have monthly gathering in community health center for training about Dengue prevention like sharing information, how and where Dengue can breed, how community can prevent it by themselves and we try to raise awareness among the community people based on training from health center (*Kami kader kesehatan ada pertemuan bulanan di Puskesmas untuk pelatihan tentang pencegahan demam berdarah seperti berbagi informasi, bagaimana dan dimana nyamuk DBD bisa lahir, bagaimana masyarakat bisa mencegah sendiri dan kami mencoba untuk meningkatkan kesadaran di antara masyarakat berdasarkan pelatihan dari Puskesmas*)”

Socialization for self anticipation is also another awareness program for community people building capacity for Dengue prevention. Community leaders are trying to motivate community to do self anticipation. Self anticipation means be careful about Dengue fever from the individual level. Socialization for Dengue fever like how can Dengue mosquito born, speared, how it can be controlled etc.

“If there is any public gathering or meeting we try to deliver information about Dengue fever such as breeding place, process,

prevention etc. Especially in rainy season we encourage people to be more conscious about Dengue fever (*Jika ada kumpulan atau pertemuan, kami mencoba memberikan informasi tentang demam berdarah seperti tempat perkembangbiakan, proses, pencegahan dll. Terutama di musim hujan kami mendorong orang untuk menjadi lebih sadar tentang demam berdarah*)”

### **Dengue information transfer**

The Dengue network partnership defines as the relationships between groups and organizations within a community or network for building capacity of community-based Dengue prevention and control. This is very effective in study area but in practical information transfer in study area is not smooth. Information sharing among the people is inadequate in term of Dengue fever or prevention.

“We get information when Dengue cases are found here, generally health worker give information about Dengue fever, its impact, breeding and prevention system. But it’s not happen regularly. Besides that, we got information community leader and neighbor (*Kami mendapatkan informasi ketika kasus DBD yang ditemukan di sini, biasanya kader PKK memberikan informasi tentang demam berdarah, dampaknya, perkembangbiakan dan sistem pencegahannya. Tapi itu tidak terjadi secara teratur. Selain itu, kami mendapat informasi tokoh masyarakat dan tetangga*)”

A large number of people heard about fever instead of Dengue fever but they know a little about it like Malaria, and Dengue mosquito can breed in place where water can be stored. Generally, when the Dengue fever speared rapidly in their surroundings then they hear

about it from their neighbor who got Dengue fever. Some people know about Dengue fever but most of them do not know what the main characteristics of Dengue fever. People know about Dengue from nearby health worker when health worker have visit the houses.

Discussion is continued with some sub topics like blending of cultural and medical knowledge in term of Dengue prevention, the complex process of community coalitions and need for comprehensive approaches, comprehensive Dengue control approaches through community coalitions.

### **Blending of cultural and medical knowledge in term of Dengue prevention**

Culture is the core point to understand a community’s behavior, practice and daily life. Cultural and medical knowledge are important to understand Dengue prevention. In most of cases, local medication are applied means self medication and this information are not provided from neighbor, friends, relatives or workmate and this are known as popular sector of medication<sup>14</sup>. People stay at home and try to apply their own knowledge for curing until three or four days when they got fever. If they do not get well in this time they meet with doctor and in most of the cases, people know about Dengue from doctor. People choose local health care first before meet with doctor. In Pirak Mertosutan both types of practice are seen among the people. But people believe in their own cultural system rather than medical knowledge of Dengue fever prevention.

The dominant system of health care of any society cannot be studied in isolation from other aspects of that society, because the medical system or professional sector of health care does not exist in a social or cultural vacuum<sup>14</sup>.



People's responses in fever are two types like culturally and medically. Cultural response is how they behave after getting fever in their own knowledge and believes where medical response is treatment until get well. If it is possible to blend both cultural and medical knowledge for Dengue prevention can be easy.

Community is a social organization which takes the community people for their well being including health matters. To ensure good development of community coalition is very important. Butteross and others mention that, coalitions enable organizations to become involved in newer and broader issues without having the soul responsibilities for managing and developing issues<sup>15</sup>.

### **The complex process of community coalitions and need for comprehensive approaches**

#### **Coalition is a complex process**

Community coalition is a union of people and organization working to influence on specific problem which help to accomplish a broad range of goals. It is a way to create a change in local level<sup>16</sup>. Coalition is a complex way and it is not easy to create. To make an effective coalition for Dengue prevention all stakeholders need to work together and need to implement collaborative capacity, build common capacity and foster change in local level<sup>17</sup>. In Pirak Mertosutan sub village work together for Dengue prevention and implement collaborative capacity, building common capacity and foster change in local level not yet created. Coalition are able to build capacity because it facilities interaction across numerous of a community which mobilize human resources and better position the community to response social need<sup>18</sup>.

The basic characteristics of community coalition like leadership, membership, structure,

process, strategic vision, contextual factors were not seen in study area which can help to make a good coalition. Community based integrated vector management is very important to Dengue prevention<sup>19</sup> where community need to be more responsible. Tapia *et al.* emphasized on '*clean backyard*' concept where people clean their in front and back front yard individually but in study area this type of activities are not yet seen for Dengue prevention. On the other hand, Rita Kusriastuti emphasized on "*dasawisma*" or ten house program to prevent Dengue fever. This "*dasawisma*" have a leader, preferably from PKK whose their representative receive training<sup>20</sup>. In Pirak Mertosutan sub village people not yet know the "*dasawisma*" program. Only a few PKK representatives know this but the program is not yet start in the study area. In Pirak Mertosutan sub village the main limitation is social mobilization for Dengue prevention. PKK volunteer works for Dengue prevention but not regular because health center inspection of their activities is not also regular. Besides that, most of the PKK representatives are busy with their own occupational activities. In three months of study time no activities were seen though it was peak season of Dengue breeding.

#### **Social Capital for effective community coalition**

People have good social capital like collaborative capacity, youth generation, and leadership to establish any types of community empowerment program which refer to the norms and networks that enable make collective action for community coalitions. According to John Field (2005), the central idea of social capital is social networks which are a valuable asset. Interaction enables people to build communities, to commit themselves to each other, and to knit the social fabric<sup>21</sup>. In study area, the bridging,

bonding and linking social capital is quite good. Bridging in social capital is referred to as social networks between socially heterogeneous groups like different occupational group in study area. Bonding in social capital is referred to as social networks between homogenous groups. This both bridging and bonding are applicable for inside community activities. *Linking* refers to communication between others stakeholders like health center and community leaders. Both three are need among the stakeholder to prevent Dengue fever. Social capital refers to the collective value of all “social networks” and the inclinations that arise from these networks to do community works among the people.

The loss of bridging, bonding and linking among the community members and stakeholders cases of Dengue fever are increasing year to year. And usually in rainy season it becomes endemic. According to United State Department of Health and Human service (2010), three major functions are done by community coalitions like- Create collaborative capacity, Build common capacity and Foster change in local level. These three are the main concept of community coalition action theory (CCAT). It is very important to create a collaborative capacity among the people to make a coalition to prevent Dengue fever where community common capacity helps to build social capital for best effort from community people. Common capacity can helps to change the community from root level which is the function of foster change at local level. Foster change is the agent of change in local level.

The main characteristics like leadership, membership, structure, operation and process, strategic vision are also “poor” insane of implementation. United State Department of Health and Human service mention that, this six

characteristics in above are most important to ensure good community coalitions<sup>17</sup>.

### **Comprehensive Dengue control approaches through community coalitions**

A comprehensive Dengue control approaches requires the coordinated efforts of both statewide and local coalitions to advocate for policies and influence social norms<sup>22</sup>. Pirak Mertosutan sub village also need both type of efforts to prevent Dengue fever. State wide program will prevent Dengue overall all the place in a country with an umbrella model. Local coalition is also important because local culture, believes, customs may be different from the national program so they need special program for preventing Dengue fever. In study area waste management is also poor. They have specific place for put the waste but the case is exist without basket. Community people give more emphasis on their daily money related activities then the volunteer community based activity as a result the community activities are very slow especially on health

For ensure comprehensive Dengue prevention Larry Cohen *et al.* give importance on some major topics which called spectrum of prevention which are 1) influencing policy and legislation, 2) changing organizational practice, 3) foster coalitions and networks, 4) educating providers, 5) promoting community education and 6) strengthening individual knowledge and skill<sup>23</sup>. In Pirak Mertosutan sub village the lack of influencing policy, practices, and communication with other stakeholders, educator, promotion and individual knowledge is still absence in broadly.

### **CONCLUSION**

The practices of community coalitions like Friday cleaning movement, mosquito eradication flick and child health task force are

full of innovative task for Dengue prevention in study area. Both cultural and medical health seeking behavior is found for Dengue fever treatment. Community capacity building like awareness building, information sharing for Dengue fever prevention are important finding from this ethnographic study. Community service for Dengue control like Friday cleaning, mosquito eradication flicks and child health task force are very inspiring program but the irregularity program implementation Dengue cases found every year. Health seeking behavior is demonstrated with cultural seeking rather than medical seeking of health. Information sharing among the people is inadequate in term of Dengue fever or prevention. Among the stakeholders, information is immobile. Awareness program is also being conducted in small space and irregular. Less socialization of Dengue among people is another impediment of capacity building for Dengue control.

### RECOMMENDATION

The following key elements for a comprehensive, integrated Dengue prevention and control program should take from sustainable Dengue prevention by community coalitions.

Policy practice is needed to build coalition capacity among the people where people will be more able work for Dengue prevention. And this should be based on community where other stakeholders will join for effective coalition on Dengue prevention.

Information about Dengue fever should be available where everybody can access in information sharing. By exchanging information people will experienced about making coalition for Dengue prevention.

Bonding, bridging and linking need to apply with stakholders for better networking for

Dengue prevention. Social capital of community people like work together concept can be applied.

Blending cultural and medical knowledge is important for more understanding for Dengue prevention where people can be able to know more about Dengue prevention practice.

Comprehensive Dengue control approaches require which should be statewide and local community based.

### ACKNOWLEDGMENT

This independent study was conducted as a partial fulfillment of Masters of Public Health Degree requirement in International Health program in Post Graduate Program in Public Health, Faculty of Medicine, Universitas Gadjah Mada, Yogyakarta, Indonesia. Authors owe a great deal to people of Pirak Martosutan sub village, local leaders like head of village and sub village, staff from Puskesmas Godean II.

### REFERENCES

1. World Health Organization. Global alert and response (GAR). *Cumulative number of confirmed human cases of avian influenza A/(H5N1) Reported to WHO, 2011.*
2. Halstead SB. Global perception on Dengue research. *Dengue Bull*, 2000.
3. Lam S. Rapid Dengue diagnosis and interpretation. *Malay J Pathol*, 1993;15(1): 9-12.
4. World Health Organization. Prevention and control of Dengue and Dengue haemorrhagic fever: comprehensive guidelines. *WHO regional publication, SEARO*, 1999;(29): 134.
5. World Health Organization. *Dengue Factsheets*, 2013;117
6. Khan E & Hasan R. Dengue infection in Asia; a regional concern. *J Postgrad Mend Inst (Peshawar-Pakistan)*, 2011;26(1).

7. Nimmannitya S, Thisyakorn U. & Hemsrichart V. Dengue haemorrhagic fever with unusual manifestations. *Southeast Asian J Trop Med Pub Health*, 1987;18(3): 398.
8. Taylor Purvis. National Directives and Community Empowerment. *The Journal of Global Health*, June, 2012.
9. Kusnanto H. Web-Based Geographic Information System to Support Dengue Hemorrhagic Fever Surveillance in Sleman District, Yogyakarta, Indonesia, 2006.
10. District Health Office Sleman, Statistics Book, 2013.
11. Parks W, Lloyd L, Nathan M, Hosein E, Odugleh A, Clark G, Gubler D, Prasittisuk C, Palmer K, & San Martin J. International experiences in social mobilization and communication for Dengue prevention and control. *Dengue Bull*, 2004;28: S1-7.
12. Heintze C, Garrido M V, & Kroeger A. What do community-based Dengue control programmes achieve? A systematic review of published evaluations. *Trans Royal Soc Trop Med Hyg*, 2007;101(4): 317-25.
13. Centers for Disease Control. Coalitions: State and Community Interventions, 2012.
14. Helman CG. Culture, health and illness: Arnold, Hodder Headline Group, 2001.
15. Butterfoss FD, Goodman RM, & Wandersman A. Community coalitions for prevention and health promotion. *Health Edu Res*, 1993;8(3): 315-30.
16. Rothman J. Approaches to community intervention. Strategies of community intervention, 2001.
17. US Dept. of Health and Human Service. Developing a Conceptual Framework to Assess the Sustainability of Community Coalitions: National Opinion Research Center (NORC) at the University of Chicago, 2010.
18. Fawcett SB, Paine-Andrews A, Francisco VT, Schultz JA, Richter KP, Lewis RK, Williams EL, Harris KJ, Berkley JY, & Fisher JL. Using empowerment theory in collaborative partnerships for community health and development. *Am J Comm Psychol*, 1995;23(5): 677-97.
19. Tapia-Conyer R, Mendez-Galvan J, & Burciaga-Zuniga P. Community participation in the prevention and control of Dengue: the patio limpio strategy in Mexico. *Paediatr Int Child Health*, 2012;32 Suppl 1: 10-3.
20. Kusriastuti R, Suroso T, Nalim S, & Kusumadi W. Together Picket”: community activities in Dengue source reduction in Purwokerto City, Central Java, Indonesia. *Dengue Bull WHO*, 2004;28: 35-8.
21. Field J. *Social capital and lifelong learning*: The Policy Press, 2005.
22. Berkowitz B & Wolf T. The spirit of the coalition. *American Public Health Association*, 2000.
23. Cohen L, Baer N, Satterwhite P, & Wurzbach ME. Developing effective coalitions: an eight step guide: Contra Costa County Health Services Department, Prevention Program, 1994.