

COVID-19 OUTBREAK IN SITTWAY CITY: PEOPLE'S PERCEPTIONS AND EXPERIENCES OF QUARANTINE

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Abstract

The second wave of coronavirus diseases started in Sittway on August 2020. There were three quarantine centres for contact cases and five Isolation Units for confirmed (positive) cases. Six Isolation Units for Internally displacement person (IDP) from camps. The purpose of this research is to identify people's perceptions and experiences of quarantine during the COVID-19 outbreak. First a literature review took place and secondary data was collected from General Administrative Office (GAD) and Sittway General Hospital. Semi-structured interviews with 30 participants were conducted. In-depth group discussions and interview data were collected from August to November 2020. Most of the interviews were conducted over the phone, viber and audio-recorded and statistical data were used. The interviewed were divided by three stages, and participants were formed: doctors/nurses, confirmed and contact cases. The finding of their perceptions and experiences: community-based facilities quarantine was effective; lack of knowledge and fear of quarantine were the main factors that affected quarantine compliance.

Keywords: Quarantine, Sittway, Perceptions, Covid-19, Experience, Stages

Introduction

The World Health Organization (WHO) has alerted the world and declared Coronavirus disease 2019 (COVID-19) as a public health emergency that require drastic interventions. Notably, the disease emerged in Wuhan city of Hubei province, Central China in December 2019 and spread throughout the world. Since then, the virus has caused serious illness, death, and social disruption around the world. At the time of this writing (September 2020), there were 26 145 350 confirmed cases of COVID-19 and almost 866 499 deaths worldwide (Thamra Al Ghafri <https://orcid.org/0000-0002-4818-9565>).Introduction

COVID-19 Global health emergency has forced the governments around the world to take strict actions and quarantine are one of them. It is the oldest and effective method of controlling communicable disease outbreaks. In December 2019 there was a cluster of pneumonia cases in China where investigations found that people were affected by unknown viruses, now named as novel coronavirus disease 2019 (COVID-19). COVID 19 is defined as an illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2 (SARS-COV-2; formerly called 2019-nCoV), which was first identified as an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. It was initially reported to the WHO on December 31, 2019. On January 30, 2020, the WHO declared the COVID-19 outbreak a global health emergency. On March 11, 2020, the WHO declared COVID-19 a global pandemic, its first such designation since declaring H1N1 influenza a pandemic in 2009. Since then, it has spread in many countries around the world, with the World Health Organization declaring it a pandemic.

The coronavirus disease 2019 (namely COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-COV-2) broke out in Wuhan, China, in December 2019, and

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spread rapidly to other provinces. To effectively control the development of the epidemic, according to the decision of the Chinese government, the First Shelter Hospital for children in Wuhan, China-Wuchang Shelter Hospital operated to treat the patients with confirmed mild disease. Currently, data on epidemiological and clinical characteristics of COVID-19 in children are limited. (Mukherjee. S et al, 2020)

The second wave of coronavirus started in Sittway on 16.8.2020. The cases were rapidly spread in Sittway City. There are 58 contact cases in August, 495 in September, 379 in October and 63 contact cases in November 2020. The total number of confirmed cases in the whole country was 53403 in Nov 2020(MoHS). Local government prepared the quarantine centre such as three quarantines and six isolation units in Sittway University for the cases outbreak spread from camps. The meaning of quarantine is to prevent people or animals from entering or leaving a particular area or building where some or all of those in it have been affected by a harmful substance or disease, until the danger of harming others has passed (Cambridge Dictionary) or Quarantine means the oldest and effective method of controlling communicable disease outbreaks.

The Ministry of Health in Myanmar activated the surveillance and control measures in all the international and national ports of entry to Sittway, the capital of Rakhine. Guidelines and data information flow charts were put in place and disseminated across all sectors. Additionally, health education and mass media campaigns were developed to prevent cross-infection. Moreover, capacity building and training activities continued for public and health workers in private and governmental institutes. These included infection control measures, taking swabs, the clinical presentation of the disease and follow up plans. Authorities' members preparing the quarantine centre everywhere particularly, Yangon and Sittway for prevention, management, monitoring, and follow up of the COVID-19 cases.

Research Background

The second wave of Covid-19 started in Sittway City on August 2020. Although there was no oversea travel history, no close contacts with the confirmed patients, the confirmed cases were increased day by day. Because of this, although there was not overseas travel history, some places of Sittway city are **overcrowded** places for example Sittway Myoma market area. Where is impossible **social distancing**, **no** medical knowledge, do not wear masks. That is why, the number of cases were immediately increased Plate (1).

The first case as a local transmitter started in (16.8.2020). After infecting, the five days later the people were increased to 16, nine days later the people were increased to 30. Accordantly, the State government prepared the quarantine centres everywhere. Sittway has many different ethnic groups and different perceptions. The city was selected based on the two criteria: 1) the number of confirmed positive cases, 2) the presence of ethnic minority groups. The paper tried to analysis perceptions and experiences of quarantine people.



Plate 1. (Main Infection Point) Impossible social distancing, no medical knowledge and do not want to wear masks, Myoma market, Sittway City

Source: Photo taken by Researchers, 2020

Study Area

Sittway is located in the Rakhine State. It is between $20^{\circ} 17''$ and $20^{\circ} 19''$ north latitude and $92^{\circ} 45''$ and $92^{\circ} 55''$ east longitude. Sittway City is bounded on the northern side by Ponnakyun Township, on the eastern side by Kaladan River, on the southern side by the Bay of Bengal and on the western side by Kwe Del River (Figure 1 and Figure 2).

The area of Sittway city is 6.25 sq-miles, approximately 4000 acres. And it is composed of 33 wards. Sittway City is located 15 feet above sea level and there is absence of mountainous areas. Sittway City is a flat plain coastal area.

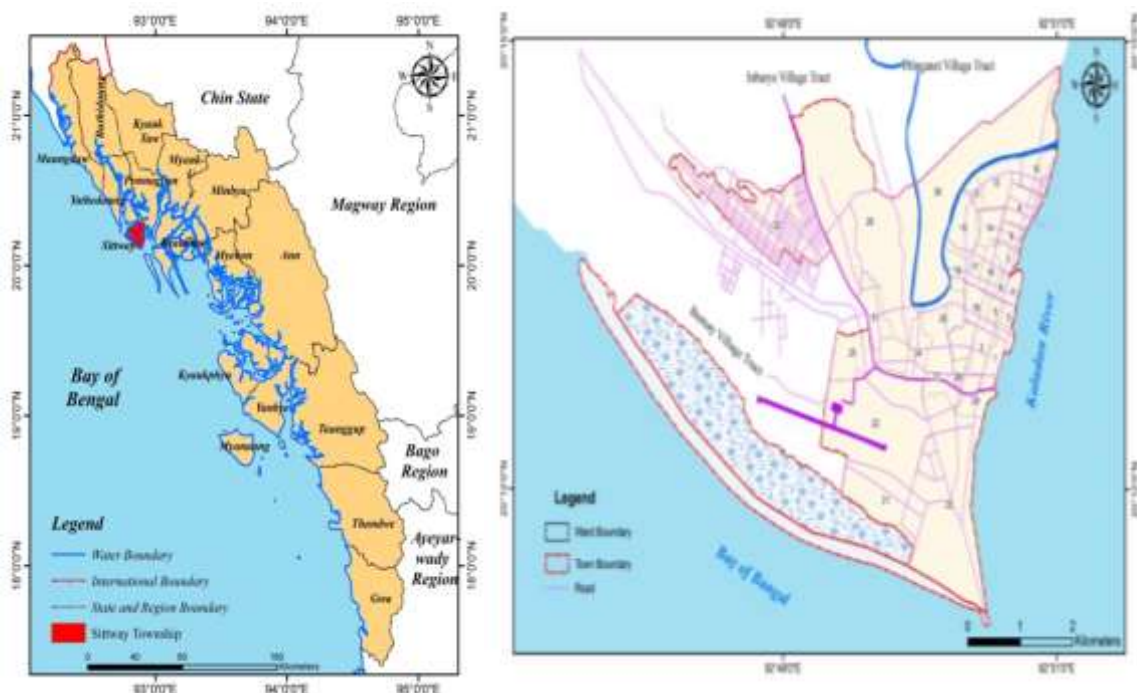


Figure 1 and 2. Location of Rakhine State, 2020 and Location of Sittway City

Source: Myanmar Survey Department

Research Questions

Against this background, which illustrates the situations of quarantine people, the aim of the study is to look deeper into the people's perceptions and experiences. The guiding research questions are:

- 1). *How is the state of **Treatment and Preparedness controlling** the spreading of virus? Which **preventions method** was used in hot spot area?*
- 2). What is your *opinion* of quarantine?
- 3). *How did your emotion change and **what strategies** do you adopt to **cope your** emotional changes during quarantine?*

Aim of the Research

The main aim of this research is to identify people's perceptions and experiences of quarantine during the COVID-19 outbreak

Materials and Methods

The research design is based on a mixed-methods approach. Particularly most of the interviews were collected by phone and viber (video) audio-recorded to reduce the risk of infection (lasted approximately 50 to 90 min). During the empirical fieldwork 30 unsystematic talks, 26 in-depth qualitative talks with interviews to Chairman of the Covid-19 Control and Emergency Response Committee, doctors, nurses, patients (confirmed case), quarantined people, drivers, local stakeholders, NGOs staff, INGOs staff and volunteers were conducted. The interviewee was based on the different levels such as from the low educated person to higher level to get difference perceptions. Systematic literature search, secondary data collections were conducted in 2020. Literature search included reviewed articles, published documents and unpublished studies, as far as it could be retrieved from international libraries. Statistical data were collected from General Administrative Department (GAD), Ministry of Health and Sports (MoHS), Sittway General Hospital (SGH) and Traditional hospital, Sittway. Based on the findings, a comprehensive, *integrated analysis and triangulation method* is drawn.

Results and Findings

In Sittway City the number of confirmed cases increased day by day. But most people were resuming their work as a "new normal". A major virus spread area is Sittway Myoma market which is overcrowded area and impossible social distancing places, most of the buyers and sellers are do not want to wear the masks, mostly are do not know well about covid-19 and they have no medical knowledge, uneducated people are mostly found. Confirmed cases are Non-Governmental Organizations (NGOs) staff, monks, International Non-Governmental Organizations (INGOs'), specialist doctors and nurses, healthcare workers were infected (MoHS, 2020).

After transmitting one case as a local transmitter was confirmed in Sittway on 16 August, the town quickly became a hotspot area and the number of confirmed cases increased rapidly, reaching over 200 within a week. The spreading of virus was slightly calm situation in November in Sittway town.

The confirmed cases of Rakhine State were 119 in August 58 in the Sittway City, In September 896 in Rakhine State and 495 in Sittway City and the highest number of confirmed cases among the dominant four months (August –November). In which the half of the confirmed cases included in Sittway town compare with Rakhine State. Sittway has the highest number of positive cases in Rakhine State, which increased rapidly in September. In October, although increased number of confirmed cases were 1326 in Rakhine State, in Sittway City were decreased to 379, The decreased in November in Rakine State about 459 and Sittway City were dramatically decreased to 63 Table 1.

Table 1. Number of Confirmed Cases (Positive), 2020

Sr No.	Month	Union	Rakhine State	Sittway City
1	August	173	119	58
2	September	11160	896	495
3	October	39333	1326	379
4	November	22176	459	63
Total		72842	2800	995

Source: Ministry of Health and Sports Myanmar, 2020

Demographic Characteristics of the Participants

For qualitative analysis, a total of 40 participants were included in this study, and the majority were in the age group of 26–30 years, and over 50 years with most of the participants were male. The participants that represented diverse backgrounds in terms of gender, profession, education, geography and social status were selected using a maximum variation sampling method. For the in-depth interview (IDI), individuals who were at the forefront in the community such as the healthcare workers (doctors and nurses) of the local hospital, security personnel, volunteers, media personnel, school teachers, local leaders, local public health experts, students, shopkeepers, drivers and daily wage labourers were selected for the participation. People who were less than 18 years or more than 60 years, those suffering from infectious disease. Of them, 40.5% were graduated and post-graduated and above. The 25.5% were undergraduate.

Among the participants, 43.2% were employed, and 27.9% were students. Details of the demographic characteristics of the participants were illustrated in Table 2. The quantitative analysis was also conducted.

Table 2. Characteristics of Participants (Interviewee), 2020

No	Age (Year)	Profession	Education Level	Remarks
1	43	Confirmed Case	Bachelor	
2	58	Confirmed Case	Doctoral	
3	48	Confirmed Case	Bachelor	
4	27	Driver/ Confirmed Case	Bachelor	

No	Age (Year)	Profession	Education Level	Remarks
5	28	Cleaner/ Confirmed Case	Primary	
6	40	Confirmed Case	4PhD	
7	37	Medical Doctor/ Contact Case	MBBS	
8	45	Medical Doctor/ Contact Case	MBBS	
9	35	Medical Doctor/ Contact Case	MBBS	
10	45	Physician/Contact Case	MBBS	
11	28	Nurse/Contact Case	B.N.Sc	
12	25	Nurse/Contact Case	B.N.Sc	
13	27	Driver/ Contact Case	Undergraduate	

Source: Interviewed, 2020

Noticed: The table just to show as an example of the structure of interviewed, actual interviewee was (30) people

Treatment Capacity and Preparedness Controlling the Spreading of Virus

The government organizations, national and international organizations NGOs, INGOs supported to treatment processes in Sittway City in 2020. At the beginning the Sittway General Hospital (SGH) has 50 beds later the regional government expanded its capacity to 200 beds. Besides, the Sittway Nursing Training Schools was supported by government about 40 inpatient beds available, Traditional Hospital and two universities are serving as treatment facilities such as testing equipment and the testing capacity of up to 100- 150 tests per day in Sittway.

The regional government given special treatment to NGOs staff because of the staff are running as round trip from Sittway to the camps to internally displaced persons (IDP). That is why the virus will be outbreak and spread to the Buthidaung /Maungdaw (IDP) camps. Also volunteers from difference places of Myanmar help for treatment processes and they take the temperature of a visitor at the entrance of Sittway General Hospital (SGH) Plate 2.



Plate 2. Difference kinds of treatments: the testing equipment can use 100 tests per day

Source: Photo taken by researchers and OCHA, 2020

Preparedness and Preventions

The state government announced a “stay at home” policy in Sittway with immediate effect, which included a lockdown of the streets where the positive cases were found and a nighttime curfew from 9pm to 4am, in a bid to contain the spread of the virus. Among the 33 wards in Sittway City the 17 wards are placed under semi-lockdown (Plate 3). The state government strictly enforced the regulation of wearing masks in public, and recommended people wash hands regularly and not visit public places. Meanwhile, Ministry of Health (MoHS) announced do not permission from and to in other parts of the country arrivals Sittway.

There were prepared three quarantine centres for contact cases as a Community- Based Facility Quarantine such as old and new Sittway universities, No.4 State High School. The state government prepared five isolation units for positive or confirmed cases as a Hospital- Based Isolation Unit, which was three wards in Sittway General Hospital (SGH), four wards in Nursing Training School, one ward in Traditional Hospital, six buildings in New Sittway University (Plate 4). Which was prepared particularly for Internally displaced persons (IDP). These buildings prepared for in case outbreak spread to (IDP) camps because of Sittway has many different ethnicities and IDP camps found in Buthidaung and Maungtau townships. The regional government systematically arranges for families when the families have to give necessary things to quarantine people (Plate 5).

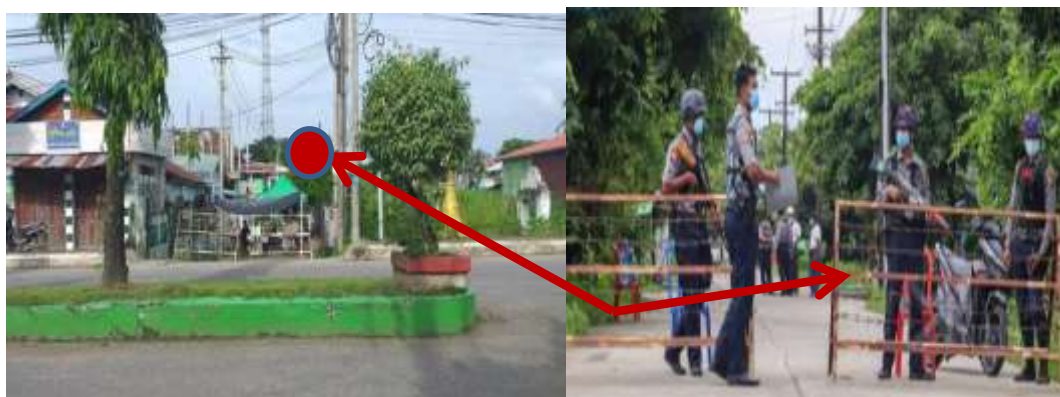


Plate 3. Semi- Lockdown at the checkpoints and street of the first case no.375 (as a local transmitter)



Plate 4. Preparation for quarantine centres, Sittway University and Traditional hospital



Plate 5. Systematic Arrangement for families to give necessary things to quarantine people, Sittway University

Source: Photo taken by researchers, 2020

Analysis on People's Perceptions and their Emotional Change

There were varied perceptions and experiences regarding COVID-19 during the quarantine centres about its origin and its survival. The people **perception of biological hazard** plays a key role in the response to health emergencies, affecting risk management and risk communication strategies (Cava MA, Fay KE et al,2005).

Therefore, the people perceptions of health risks can influence **individual behaviors** (Slovic,1987). This paper explored the result related question (2) on the perceptions and experiences of quarantine's people, analysis by **integrated analysis and triangulation method**. There are divided by **three stages** of quarantine people and **two participants groups**. They are:

- 1) the early stage of quarantine
- 2) the middle stage and
- 3) the late stage of quarantine people

Two participants group are

- 1) Confirmed cases (Positive cases): interviewed to the different levels of participants such as drivers, students, healthcare workers, shopkeepers, street vendors,
- 2) Contact cases were including doctors, nurses, volunteers and so on.

The Result of the Early Stage of Quarantine people, the interviewee said:

I did not hope that would be positive. After knowing the result, I was deeply shocked, especially I worried for my work, I had to do many things at my work. Besides some people might think I was a carrier of COVID-19 (interviewed, ST_001).

Particularly, in this stage 25% of the quarantine people were afraid of phone calls. Because before they were sent to the quarantine, they experienced phone calls frequently from local/ ward authorities, volunteers and healthcare workers.

At that time, they were not prepared and had emotions for their families. Besides, they are not sure whether they were COVID- 19 positive or not. That was why they did not want to accept phone calls and helps of health workers. This is a strong opinion of **early stage of quarantine** people.

Half of the participants were worried for their work, they do not seriously worried for their family and for themselves.

The perception of some participants, quarantine is necessary:

Interviewee said:

- *Fortunately, I was quarantined. If I was infected, it would affect my family (interviewed_ST_006).*
- some participants actively cooperated with the relevant departments. They answered the questions of this department honestly. Among the quarantine people 80% of people said that quarantine is necessary.

Experience at the quarantine

- *I had too much psychological pressure. I couldn't sleep, and my blood pressure went up in (early) quarantine (interviewed_ST_002).*

Ethnicity issue: interviewed to doctors/ nurses: they are facing problem “how to put together these difference ethnic groups at the quarantine”

The Result of the Middle Stage of Quarantine

Interviewee said *I have done swab tests again at middle stage. At that time, we were nervous. Later, the test results were negative. I suddenly became relaxed.*

Strategy to cope their emotions

Most of the participants took a variety of ways to support their immune systems during quarantine such as drinking water, eating food, and doing exercise, making meditation, which changed their emotions. This variety of ways are affected to reduce their emotion (Plate 6). Regional government prepared the enough space for doing exercises for quarantine peoples. This is a very strength for them and immediately recover to quarantine people.



Plate 6. Doing exercises to cope their emotion at the Traditional hospital (Isolation Unit)

Source: Photo taken by researchers, 2020

External support

Some participants received social support from family and friends. **Interviewee said:**

I like to make friends, and I have many friends. I like to chat with others. My friend called me to care about me and comfort me, which relieved my fear.

-some participants said their strategies such as watching TV, listening to music, chatting with friends and families. Then, reduced their stress regarding quarantine by these strategies.

Professional Psychological support

Some participants are primary education level had limited knowledge about COVID-19 and they were psychologically vulnerable.

One interviewee said: *I didn't know much about the disease. I was very afraid, fortunately, there were professional psychologists to comfort me*

The Result of the Late Stage of Quarantine

Most of the participants were calm and peaceful in the late stage of the quarantine. At that time, they knew more about COVID-19

- *In the late stage of quarantine, I wanted to be immediately released from quarantine and back to my work. I couldn't wait anymore. I have a lot of work to do.* (interviewed)

Discussion and suggestions

- The authorities need to clearly announce the rules and regulations of the Ministry of Health (MoHS) at every wards.
- The government, military and ethnic groups should work together in preparedness and prevention actions to reduce pandemic.
- Healthcare professionals should conduct psychological assessments for individuals if necessary.
- Need to prevent seriously on spreading of virus to camp. If not, the camp residents are more vulnerable than the other people because they have limited access to basic healthcare. Besides they are not easy for them to come to the hospital (interviewed).
- One doctor said that: although they suggested to people to wear masks but they do not wear. At that time if police said that they wear the masks immediately.
- To care psychological support especially for older people and the low educated people.

Conclusion and Recommendations

The second wave of coronavirus started in Sittway on 16.8.2020. The cases were rapidly spread in Sittway City. There are 58 contact cases in August, 495 cases in September, 379 in October and 63 contact cases in November 2020. The total number of confirmed cases in the whole country was 53403 in November 2020 (MoHS). In 2020, 12 people died in Sittway Township. The spreading of virus was slightly calm situation in November in Sittway City.

Local government prepared the quarantine centre. There are three quarantine centres for contact cases and five Isolation Units for confirmed (positive) cases. Six Isolation Units were established in Sittway University for Internally displacement person (IDP) from camps (if outbreak from Buthidaung, Maungdaw camps). The government organizations, national and international organizations NGOs, INGOs supported to treatment processes and treatment capacity in Sittway City in 2020. At the beginning the Sittway General Hospital (SGH) has 50 beds later the regional government expanded its capacity to 200 beds.

For the preparedness and prevention, the state government announced a “stay at home” policy which included a lockdown of the streets where the positive cases were found and a nighttime curfew from 9pm to 4am. Among the 33 wards in Sittway town the 17 wards are placed under semi-lockdown.

Sittway has many different ethnic groups and different perceptions. The city was selected based on the two criteria: 1) the number of confirmed positive cases, 2) the presence of ethnic minority groups. In qualitative analysis, a total of 40 participants were included in this study, and the majority were in the age group of 26–30 years, and over 50 years with most of the participants were male. People who were less than 18 years or more than 60 years, were those suffering from infectious disease. Of them, 40.5% were graduated and post-graduated and above. The 25.5% were undergraduate. Among the participants, 43.2% were employed, and 27.9% were

students. The interviewed were divided by **three stages**, such as **early stage** of quarantine, **middle stage** of quarantine and **late stage** of quarantine and participants were formed: doctors/nurses, confirmed and contact cases. According to interviewees, the finding of their perceptions and experiences are community-based facilities quarantine are effective, lack of knowledge and fear of quarantine are the main factors that affected quarantine compliance.

At the **early stage** of quarantine, particularly 25% of the quarantine people were afraid of phone calls. Because before they were sent to the quarantine, they experienced phone call frequently from local/ ward authorities, volunteers and healthcare workers. At that time, they were not prepared to go to quarantine and they had emotions.

At the **middle stage** of quarantine, the people were relaxed. At this stage, most of the participants took a variety of ways to support their immune systems such as drinking water, eating food, and doing exercise, making meditation, which changed their emotions. At the **late stage** of quarantine, most of the participants were calm and peaceful. At that time, they knew more about COVID-19.

The people perceptions of biological hazard play a key role in the response to health emergencies, affecting risk management and risk communication strategies. Most of the quarantined people had experienced heavy emotional in the quarantine period. Quarantine people adopted emotional regulation strategies and received external support to cope with their negative emotions.

Finally, this paper explored the perceptions of people. Their perceptions were based on knowledge and awareness about the COVID- 19. Most of the quarantine people and confirmed cases were low educated people. That was why the people were strongly emotion during the quarantine and they faced a lot of challenges.

Acknowledgement

This research project was possible because of the strong support by many institutions, experts and citizens. We also deeply thank all stakeholders, interviewees from the Sittway General hospital, Sittway traditional hospital and the Township General Administrative Department (GAD).

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