

7<sup>th</sup>

NSCE

NATIONAL SCIENTIFIC CONFERENCE ON EPIDEMIOLOGY

# Protection against Vaccine Preventable Diseases

02 - 05 Mei 2018, Yogyakarta - INDONESIA

Marriot Hotel, Yogyakarta, Indonesia | 02 - 05 Mei 2018

# FETP

FIELD EPIDEMIOLOGY TRAINING PROGRAM

# INDONESIA



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## WELCOME MESSAGE

It is a great pleasure for me to welcome all participants and speakers of the 7th National Scientific Conference on Epidemiology (NSCE) in Yogyakarta. The conference will be held from 3 to 5 May 2018 and will be Indonesia's largest annual event devoted to the science and practice of field epidemiology. It is expected to provide the participants with a platform to exchange ideas, showcase, field works, reacquaint with colleagues, meet new friends, and broaden their knowledge. The theme of the NSCE 2018 is *Protection against Vaccine Preventable Diseases* and meant to refresh the knowledge, skills and experience of the participants as field epidemiologist. The conference is held at the Yogyakarta Marriot Hotel, which is strategically located in the heart of Yogyakarta

FETP Indonesia was established in 1982 and revitalized in 2008 with the intention to support and strengthen the National Public Health capacity by providing a field based training program in applied epidemiology and public health practice.

The role of field epidemiologists in disease prevention and control are very important. They provide data analysis to be used as evidence in developing strategies, policies, and measures in disease prevention and control. This conference will also present the significant contributions of epidemiologists in Indonesia which indicate FETP sustainability and progress and their close collaboration with the country's disease prevention and control system.

We are pleased to have our colleagues from the Ministry of Health, Bio Farma, the World Health Organization, US-CDC, and FETP representatives from Vietnam and the Philippines as speakers in plenary sessions. In breakout sessions, there will be speakers - who are FETP students - from various schools of public health, namely from the University of Indonesia, Gadjah Mada University, Airlangga University, Udayana University, Hasanuddin University, and FETP Alumni as well.

The Organizing Committee who are all from the Sub-directorate of Surveillance of the Directorate General of Disease Prevention and Control and from FETP Indonesia Secretariat wish you to have a wonderful conference experience and a memorable stay in Yogyakarta. Hopefully, you will enjoy the conference and experience the unique Javanese culture, heritage and traditions. Welcome to Yogyakarta! Selamat Datang di Yogyakarta! Sugeng Rawuh ing Yogyakarta!.

Yogyakarta, 23 April 2018

Dr. Anung Sugihantono, M.Kes  
Director General of Disease Prevention and Control

## YOGYAKARTA

Yogyakarta is one of the foremost cultural centers of Java. This region is located at the foot of the active Merapi volcano, Yogyakarta was in the 16<sup>th</sup> and 17<sup>th</sup> centuries the seat of the mighty Javanese empire of Mataram from which present day Yogyakarta has the best inherited of traditions. The city itself has a special charm, which seldom fails to captivate the visitor.

This province is one of the most densely populated areas of Indonesia. The city came into being in 1755, after the Mataram division into the Sultanates of Yogyakarta and Surakarta (Solo). Gamelan, classical and contemporary Javanese dances, wayang kulit (leather puppet), theater and other expressions of traditional art will keep the visitor spellbound. Local craftsmen excel in arts such batiks, silver and leather works. Next to the traditional, contemporary art has found fertile soil in Yogya's culture oriented society. ASRI, the Academy of Fine Arts is the center of arts and Yogyakarta itself has given its name to an important school of modern painting in Indonesia, perhaps best personified by the famed Indonesian impressionist, the late Affandi.

Yogyakarta is often called the main gateway to the Central Java as where it is geographically located. It stretches from Mount Merapi to the Indian Ocean. There is daily air service to Yogya from Jakarta, Surabaya and Bali as well as regular train service and easy accessibility by road. Yogyakarta is commonly considered as the modern cultural of Central Java. Yogyakarta remains the clear front-runner for traditional dance, Wayang (traditional puppetry) and music.

Yogyakarta has more than just culture though. It is a very lively city and a shopper's delight. The main road, Malioboro Street, is always crowded and famous for its night street food-culture and street vendors. Many tourist shops and cheap hotels are concentrated along this street or in the adjoining tourist area such Sosrowijayan Street.

The key attraction of Yogyakarta is 'Kraton' (the Sultan's Palace). The Sultan's palace is the centre of Yogya's traditional life and despite the advance of modernity; it still emanates the spirit of refinement, which has been the hallmark of Yogya's art for centuries. This vast complex of decaying buildings was built in the 18th century, and is actually a walled city within the city with luxurious pavilions and in which the current Sultan still resides.

## PRE CONFERENCE WORKSHOP

| TIME               | PLACE                      | ACTIVITY  |
|--------------------|----------------------------|---|
| 08.00-09.00        | Kraton Ballroom 3          | Registration  |
| 09.00-09.15        |                            | <b>Opening Remarks:</b><br>dr. I Nyoman Kandun, MPH<br>Coordinator of FETP Indonesia  |
| 09.15-10.00        |                            | <i>Methods for measuring the impact of immunization in Indonesia</i><br>dr. Rusipah, M.Kes (WHO Indonesia)                        |
| 10.00-10.30        |                            | Discussion  |
| <b>10.30-10.45</b> |                            | <b>COFFEE BREAK</b>   |
| 10.45-11.30        | Kraton Ballroom 3          | <i>Qualitative and Quantitative Surveys on the EPI</i><br>dr. Rusipah, M.Kes (WHO Indonesia)                                      |
| 11.30-12.00        |                            | Discussion  |
| <b>12.00-13.00</b> |                            | <b>MAKAN SIANG</b>  |
| 13.00-13.45        | Malioboro 4                | <i>Methods for Sampling Selection Process and Calculating Data of Riskesdas</i><br>dr. Sri Poedji Hastoety Djaiman (Balitbangkes) |
|                    | Malioboro 5                | <i>VPD Program Evaluations</i><br>dr. Soewarta Kosen, MPH, Dr.PH  |
| 14.15-14.30        | Malioboro 4<br>Malioboro 5 | Introduction to group discussion  |
| 14.30-15.30        |                            | Group Discussion<br>Moderator (Group Discussion 1): dr. Yuwono Sidharta<br>Moderator (Group Discussion 2): dr. Muhammad Asri      |
| 15.30-15.45        |                            | <b>COFFEE BREAK</b>   |
| 15.45-16.15        | Malioboro 4<br>Malioboro 5 | <i>Preparation of student presentation</i><br>dr. Muhammad Asri & dr. Yuwono Sidharta   |
| 16.15-16.30        |                            | <b>Closing</b>  |

# AGENDA

**Day 1: May 3, 2018**

| TIME               | PLACE             | ACTIVITY  |  |               |             |               |
|--------------------|-------------------|---|--|---------------|-------------|---------------|
| 08.00-08.30        | Kraton Ballroom 3 | Registration  |  |               |             |               |
| 08.30-08.35        |                   | National Anthem   |  |               |             |               |
| 08.35-08.45        |                   | <b>Opening Remarks:</b><br>Head of PHO Yogyakarta   |  |               |             |               |
| 08.45-08.55        |                   | <b>Committee Report:</b><br>Director of Surveillance and Health Quarantine, MoH   |  |               |             |               |
| 08.55-09.15        |                   | <b>History of Indonesia's FETP &amp; PAEI</b><br>dr. I Nyoman Kandun, MPH<br>Coordinator of FETP Indonesia & PAEI's Founder                                       |  |               |             |               |
| 09.15-09.30        |                   | <b>Opening &amp; Key Note Speech:</b><br><i>Topic: Protection against Vaccine Preventable Diseases</i><br>Director General of Disease Prevention and Control, MoH |  |               |             |               |
| 09.30-09.45        |                   | <b>Photo Group Session</b>  |  |               |             |               |
| <b>09.45-10.00</b> |                   | <b>COFFEE BREAK</b>   |  |               |             |               |
| 10.00-10.15        | Kraton Ballroom 3 | <b>Situation and Control of Leptospirosis in Yogyakarta</b><br>Head of PHO Yogyakarta   |  |               |             |               |
| 10.15-10.25        |                   | <b>Discussion</b>   |  |               |             |               |
| 10.25-12.00        | Kraton Ballroom 3 | <b>Plenary Session 1</b><br><b>Moderator: Dr. dr. Tri Yunis Miko Wahyono, MSc</b>   |  |               |             |               |
|                    |                   | 10.25-10.40   | <i>JEE 2017 Outcomes and FETP Development Plan to Address Field Epidemiologists Needs in Indonesia</i><br>PPSDM  |               |             |               |
|                    |                   | 10.40-10.55   | <i>The Role of Epidemiologist at MoH/ National Public Health Institute</i><br>Dr. Alden Henderson (US-CDC)   |               |             |               |
|                    |                   | 10.55-11.10   | <i>The Important of Epidemiologist to be part of GOARN</i><br>Dr. Rim Kwang IL (WHO Indonesia)   |               |             |               |
|                    |                   | 11.10-11.25   | <i>The Epidemiological Approach on Preparedness and Response for Public Health Emergency</i><br>Secretary of DG of Disease Prevention and Control, MoH |               |             |               |
|                    |                   | 11.25-12.00   | Discussion   |               |             |               |
| <b>12.00-13.00</b> |                   | <b>LUNCH</b>  |  |               |             |               |
|                    |                   | <b>Oral Presentations</b>   |  |               |             |               |
| 13.00-14.00        | Malioboro 4       | OP Session 1  | Malioboro 5  | OP Session 2  | Malioboro 6 | OP Session 3  |
| 14.00-15.00        | Malioboro 4       | OP Session 4  | Malioboro 5  | OP Session 5  | Malioboro 6 | OP Session 6  |
| 15.00-16.00        | Malioboro 4       | OP Session 7  | Malioboro 5  | OP Session 8  | Malioboro 6 | OP Session 9  |
| <b>16.00-16.15</b> |                   | <b>COFFEE BREAK</b>   |  |               |             |               |
| 16.15-17.15        | Malioboro 4       | OP Session 10   | Malioboro 5  | OP Session 11 | Malioboro 6 | OP Session 12 |

## Day 2: May 4, 2018

| TIME        | PLACE             | ACTIVITY   |  |               |             |               |
|-------------|-------------------|--|--|---------------|-------------|---------------|
| 08.00-11.00 | Kraton Ballroom 3 | Plenary Session 2<br>Moderator: dr. Riris Andono Ahmad, MPH, PhD |  |               |             |               |
|             |                   | 08.00-08.45  | Indonesia's National Immunization Program: Strategies and Challenges<br>Director of Surveillance and Health Quarantine, MoH              |               |             |               |
|             |                   | 08.45-09.30  | Situation and Control of Diphtheria in Indonesia<br>Prof. Dr. dr. Ismoedijanto, Sp.A(K)  |               |             |               |
|             |                   | 09.30-10.15  | Ensuring the Potency and Quality of Vaccines in Supporting the Immunization Program<br>Dr. Novilia Sjafri Bachtiar,dr.,M.Kes (Bio Farma) |               |             |               |
|             |                   | 10.15-11.00  | Epidemiologist Role of the Laboratory Based on VPD surveillance<br>BTDK Balitbangkes, MoH  |               |             |               |
| 11.00-11.15 |                   | COFFEE BREAK   |  |               |             |               |
| 11.15-13.00 |                   | LUNCH  |  |               |             |               |
| 13.00-15.00 |                   | Poster Presentations   |  |               |             |               |
|             |                   | Oral Presentations   |  |               |             |               |
| 15.00-16.00 | Malioboro 4       | OP Session 13  | Malioboro 5  | OP Session 14 | Malioboro 6 | OP Session 15 |
| 16.00-16.15 |                   | COFFEE BREAK   |  |               |             |               |
| 16.15-17.15 | Kraton Ballroom 3 | Plenary Session 3 (Webinar)<br>Moderator: Dr. Conky Quizon       |  |               |             |               |
|             |                   | 16.15-16.30  | Chikungunya Outbreak in a Rural Village, Northern Mindanao, Philippines, 2016<br>Karen Lonogan (Philippine FETP)                         |               |             |               |
|             |                   | 16.30-16.45  | An Outbreak Investigation of Diphtheria in Quang Nam in 2017<br>Nguyen Dinh Luong (Vietnam FETP)   |               |             |               |
|             |                   | 16.45-17.00  | Dengue Prevention Knowledge, Attitudes and Practices of Hanoi Residents in 2017<br>Nguyen Van Khiem (Vietnam FETP)                       |               |             |               |
|             |                   | 17.00-17.15  | Discussion   |               |             |               |

***Day 3: May 5, 2018***

| TIME               | PLACE             | ACTIVITY  |   |
|--------------------|-------------------|---|---|
| 08.00 -09.30       | Kraton Ballroom 3 | <b>Special Presentations</b><br><b>Moderator: Ansariadi, S.KM, M.Sc.PH, Ph.D</b>          |   |
|                    |                   | 08.00-08.30   | <i>Challenges of Immunization Program in Indonesia</i><br>Dr. dr. Tri Yunis Miko Wahyono, MSc (FETP UI) |
|                    |                   | 08.30-09.00   | <i>Challenges of VPD Outbreak Investigation</i><br>dr. Riris Andono Ahmad, MPH, PhD (FETP UGM)          |
|                    |                   | 09.00-09.30   | <i>Public Health Laboratory Based On Epidemiology</i><br>Prof. Dr. dr. Buchari Lapau, MPH               |
| <b>09.30-10.00</b> |                   | <b>COFFEE BREAK</b>   |   |
| 10.00-10.30        | Kraton Ballroom 3 | <b>Committee Report and Awards</b><br>Director of Surveillance and Health Quarantine, MoH |   |
| 10.30-11.00        | Kraton Ballroom 3 | <b>Closing</b>  |   |
| 11.00-12.00        |                   | <b>Administration</b>   |   |
| <b>12.00-13.00</b> |                   | <b>LUNCH</b><br><b>Hotel Checkout</b>   |   |



# **ORAL PRESENTATIONS**

**Oral Presentation 1, 2 and 3**  
**Thursday, May 3, 2018/13.00-14.00**

|   |   |
|---|---|
| <b>Session 1: Malioboro 4</b><br><b>Vaccine Preventable Diseases 1</b><br>Moderator: dr. Muhammad Asri, MPH   |   |
| 1.  | Siti Shofiya Novita Sari<br>"Outbreak Investigation of Diphtheria–Kediri District, January 2018"  |
| 2.  | Marfin<br>"Diphtheria Outbreak Investigation in Garut Regency, December 2017-January 2018"  |
| 3.  | Sholikhah<br>"Outbreak of Diphtheria in Tangerang District, Banten, Indonesia, 2017"  |
| 4.  | Nia Asriani<br>"Diphtheria Investigation in Buranga Village, Central Sulawesi, Indonesia, 2017"   |
| <b>Session 2: Malioboro 5</b><br><b>Evaluation of Surveillance System 1</b><br>Moderator: dr. Yuwono Sidharta |   |
| 1.  | Yoyo<br>"Evaluation of Dengue Surveillance and Early Warning System in Cimahi City, West Java Province, Indonesia, 2017"  |
| 2.  | Fovilia Dewi<br>"Evaluation of pneumonia surveillance system in Yogyakarta district, 2016"  |
| 3.  | A.Jusmawati<br>"Evaluation of Surveillance System Health Care Associated Infection of Control and Prevent Infection in Labuang Baji Hospital Makassar"                  |
| 4.  | Menikha Maulida<br>"The Ability of Early Warning Alert and Response System (EWARS) to Detect Outbreak in Wonogiri District, Central Java Province, 2017"                |
| <b>Session 3: Malioboro 6</b><br><b>Vector Borne Diseases</b><br>Moderator: drg. Baning Rahayujati, M.Kes     |   |
| 1.  | Ruri Trisasri<br>"Risk factor of dengue mortality in Dr. Sardjito Hospital"   |
| 2.  | Marwanty<br>"The relationship of House Environmental with Dengue Incidence in Palopo 2016"  |
| 3.  | Kusuma Cutwardani<br>"Construction of DBD Count for Dengue Hemorrhagic Fever Surveillance Data Processing (Study in Lamongan District Health Office - Indonesia, 2017)" |
| 4.  | Ahmad Musyafa<br>"Implementation of Dengue Hemorrhagic Surveillance System in District of Blora 2017"   |

## Session 1 – Malioboro 4

### Topic: Vaccine Preventable Diseases 1

#### 1. Outbreak Investigation of Diphtheria in Kediri District, January 2018

**Authors:** Siti S. N. Sari<sup>1</sup>, B. W. Kartika<sup>2</sup>, Istianah<sup>3</sup>, C. U. Wahyuni<sup>4</sup>

<sup>1</sup>FETP Student Universitas Airlangga; <sup>2</sup>East Java Provincial Health Office; <sup>3</sup>Kediri District Health Office;

<sup>4</sup>Department of Epidemiology, Faculty of Public Health, Universitas Airlangga.

**Background:** Diphtheria is a contagious disease and may cause of outbreak. In January, 2018, Diphtheria outbreak had occurred on 9 people in Kediri District. This outbreak investigation conducted to describe the outbreak Diphtheria and its risk factors in the Kediri District January 2018.

**Methods:** Investigation carried out on 4-30 January 2018 in the area of public health center, Plosoklaten, Blabak, Kandangan, Mojo, Puhjarak, Sidorejo, Pare, Sambu and Kepung. The case definition was referred by the definition of the operational Surveillance of Diphtheria cases MoH of Indonesia 2017. The investigation involved the Kediri District Health Department surveillance officer, surveillance officers of health center, local village midwife and clinics health laboratory officer. Specimens was taken from the throat and nasal swab to be tested in the laboratory of BBTCLPP Surabaya.

**Results:** During January 2018, had been found 8 suspect cases of Diphtheria and 1 laboratory confirmed cases. By age group most >15 years were 7 people (78%). By sex most women were 6 people (67%). The entire physical examination showed a pseudomembran. Most of the clinical diagnosis was tonsils and pharyngeal Diphtheria. Immunization status of Diphtheria was mostly complete 5 people (56%), while the immunization status of positive laboratory case was unknown. Diphtheria that confirmed positive laboratory was female, in the age group >15 years and showed mitis biotype of *Corynebacterium diphtheriae*. Based on the epidemiological curve, most cases of Diphtheria occurred in the first week and the fourth week of January 2018. The cases spreaded in work areas of 9 health center in Kediri District.

**Conclusions:** Diphtheria outbreak occurred in the territory of Kediri District. The period of the outbreak, according to the epidemic curve appeared in the first week until the fourth week of January. *Corynebacterium diphtheriae* was mitis biotype recently found in the Kediri District. Risk factors appeared in positive laboratory case was unknown the immunization status.

**Keywords:** Diphtheria, outbreak, mitis, Kediri District

#### 2. Diphtheria Outbreak Investigation in Garut Regency Period December 2017—January 2018

**Authors:** Marfin<sup>1</sup>, Rusli<sup>2</sup>, Helda<sup>3</sup>

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Field Supervisor; <sup>3</sup>Department of Epidemiology, Universitas Indonesia

**Background:** Diphtheria is an acute infectious disease caused by *Corynebacterium Diphtheriae* that can cause death. Health Office of Garut Regency reported cases of diphtheria as many as 33 cases in the period December 2017-January 2018. According to the Minister of Health Regulation number 1501 in 2010, 1 case of diphtheria is an Outbreak. This investigation aims to illustrate epidemiologic cases of diphtheria and to see the relationship of immunization status, travel history, socio-demographic factors and the physical environment of the house with diphtheria occurrence.

**Methods:** This investigation used case control design. The sample size in this study were 121 respondents with an amount of case 31 and control 90. This investigation was conducted by a team of FETP students FKM UI and Garut District Health Office conducted on 6-9 February 2018 at 13 Puskesmas reported cases. Data analysis was performed by logistic regression test to see the value of odds ratio.

**Results:** The outbreak pattern is propagated epidemic that occurs at the age of 1 -71 Years. The data analysis showed the immunization status OR = 4.09 (P value <0.05), travel history OR = 4.93 (Pvalue <0.05). Age, the work of the head of the family, the education of mother and the head of the family, the density of the dwelling, the floor of the house, the wall of the house is not related to the occurrence of diphtheria.

**Conclusions:** There was a significant association between immunization status and travel history with diphtheria events. It is suggested to Garut Regency Health Office to improve the quality and coverage of immunization, improvement of orderly immunization record, and Improving coordination reporting in new case invention and career.

**Keywords:** Diphtheria, Outbreak, Garut Regency

### 3. Outbreak of Diphtheria in Tangerang District, Banten, Indonesia, 2017

**Authors:** Sholikah<sup>1</sup>, Atik Choirul Hidajah<sup>2</sup>

<sup>1</sup>FETP Universitas Airlangga; <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Universitas Airlangga

**Background:** On October 2017 Tangerang District Health office reported that there was a diphtheria outbreak. The incidence of Diphtheria cases in Tangerang District from 1 October to 30 October 2017 amounted to 12 cases and 2 deaths. All patients were treated at local hospital. Epidemiological investigations were conducted to ensure the existence of outbreak, to find risk factor and to find additional of the diphtheria cases.

**Methods:** The approach used in this research is descriptive approach. Sources of data collected were from patients medical records at Tangerang District Hospital, laboratory data, immunization coverage data from Tangerang District Health Office and Epidemiological investigations form. Home visits are based on contact history, neighbors and playmates.

**Results:** the results of investigation found 12 cases spread in 3 sub-districts of Balaraja as much as 2 cases, Kesambi there are 8 cases, and Kresek as many as 2 cases. Distribution of Diphtheria cases by definition found 50% probable cases and 17% laboratory confirmation cases. Distribution of cases by age group, lowest at age 3 years and highest at age 39 years. Based on immunization history 67% of patients had an incomplete immunization history. Prophylaxis didn't run well and there was no PMO.

**Conclusions:** An outbreak happened in Tangerang District. Risk factors predicted as outbreaks include an incomplete history of vaccinations and dense population environment

**Keywords:** outbreak investigation, diphtheria, immunization.

### 4. Diphtheria Investigation In Buranga Village, Central Sulawesi, Indonesia, 2017

**Authors:** Nia Asriani<sup>1</sup>, S.S.Hadi<sup>2</sup>, C.U.Wahyuni<sup>3</sup>

<sup>1</sup>FETP Student Universitas Airlangga; <sup>2</sup>Sidoarjo District Health Office; <sup>3</sup>Department of Epidemiology, Faculty of Public Health, Universitas Airlangga

**Backgrounds:** Diphtheria is a highly contagious and potentially life threatening bacterial disease caused by corynebacterium diphtheria. In May 2017, the first diphtheria case was reported in Buranga Village after three years of zero diphtheria case reporting in the District. The purpose of this study was to conduct an epidemiology investigation and find additional diphtheria cases in Parigi Moutong District.

**Methods:** This was a descriptive study with observation and interview method. Primary and secondary data were collected. Secondary data were obtained from surveillance data and investigation results while the primary data were obtained from interviews on reported probable diphtheria case.

**Results:** No additional cases of diphtheria were found in Parigi Moutong District. The reported case in May 2017 was an 11-year-old primary school student. The presence of diphtheria typical symptoms (bullneck and pseudomembran) were found on clinical examination. The patient have heart problems before given anti-diphtheria serum by health officer. However, the culture examination showed negative results. The result was allegedly due to errors in the culture examination procedure performed by health officer. Index case or chains of diphtheria transmission cannot be certainly determined, but we suspected the patient's mother to be the carrier based on history of travelling to diphtheria endemic area.

**Conclusions:** There was 1 probable diphtheria case in Ampibabo Subdistrict of Parigi Moutong District. Training to increase the capacity of health workers in diphtheria management was needed.

**Key words:** Diphtheria, Epidemiology, Investigation, Probable.

## Session 2 – Malioboro 5

### Topic: Evaluation of Surveillance System 1

#### 1. Evaluation of Dengue Surveillance and Early Warning System in Cimahi City, West Java Province, Indonesia, 2017

**Authors:** Yoyo<sup>1</sup>, M. Wahyono<sup>2</sup>, Rusli<sup>3</sup>

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Departemen Epidemiology, Faculty of Public Health, Universitas Indonesia

**Background:** Dengue cases has increased in all tropical countries every year, including Cimahi City. In 2011 the number of DHF cases was 460 and increase to 1.086 cases in 2016. In the last three years cases of DHF were found in all areas, therefore Cimahi was categorized as endemic areas of DHF. This evaluation purpose to describe the early warning system and performance of dengue surveillance and suggest recommendations for improvement.

**Methods:** This evaluation was conducted in July to August 2017. Interviews with 15 officers of dengue surveillance at Community Health Center and District Health Office has done using an evaluation tools based on CDC guidelines. Descriptive and trend analysis had performed to achieve the objective of the evaluation.

**Results:** The timeliness of Early Warning System was only 48.8% and trends of cases reported are not consistent with routine reports. Some attributes of dengue surveillance have been good, but the other were poor. The validity of data reported was only 58.4% and timeliness of reporting was only 55.1%. Only 70.4% reported of 1,543 cases detected by the health care unit that reflected the sensitivity was low. The representativeness was considered poor where only 6.4% of 31 private health services that submit report to the surveillance unit.

**Conclusions:** Early Warning System has not been able to detect and predict well the outbreaks. Performance of dengue surveillance had low, especially the representation, timeliness, validity of data reporting, and the sensitivity, so that the purpose of dengue surveillance to detect and predict the outbreaks was not achieved, therefore the performance needs to be improved. This evaluation recommended a simple mechanism of case notification in daily report, routine supervision, and training for officers.

**Keywords:** Cimahi, Dengue, Evaluation, Surveillance

#### 2. Evaluation of Pneumonia Surveillance System in Yogyakarta District, 2016

**Authors:** Fovilia Dewi<sup>1</sup>, Susilawati<sup>2</sup>, Riris Andono Ahmad<sup>1</sup>

<sup>1</sup>FETP FKMK UGM; <sup>2</sup>Yogyakarta District Health Office

**Background:** Pneumonia is the second leading cause of children mortality in Indonesia but the annual case finding is always below 30% in Yogyakarta district. Poor surveillance system might be the cause of low coverage. The evaluation was conducted to discover the process and problem of implementation of pneumonia surveillance system at public health office (PHC) level.

**Methods:** This was a survey study. Eight among 18 PHC officers were recruited as samples. Data was collected by interview using questionnaire and observation using checklist. The evaluation is focused on the function of the surveillance system.

**Results:** The primary step in the classification of pneumonia is to count the respiration frequency but only 37.5% of the officers did so. 37,5% officers failed to state the criteria of rapid respiration according to the national guidelines. Not all children were classified because the process took >15 minutes while almost 60 children came each day with only one officer on duty. No PHC used the ISPA stamp as required by the Ministry of Health to assist pneumonia classification. Lack of ARI soundtimer (37,5%) also complicated the classification process. Logistics procurement and refreshing / update knowledge meeting attended by PHC officers and doctors was conducted as intervention. The results of pre and post test evaluation showed an increase of knowledge of 21.68% and paired t test showed a significant difference between before and after intervention ( $p < 0.001$ ).

**Conclusions:** Pneumonia surveillance system has been running but overall it has not been in line with national guidelines. PHC need to ensure that every children is classified correctly according to national guidelines. Yogyakarta district health office needs to improve support, monitoring and evaluation of program implementation.

**Keywords:** surveillance, pneumonia, low coverage, Yogyakarta

### 3. Evaluation of Surveillance System Healthcare Associated Infection of Control and Prevent Infection in Labuang Baji Hospital Makassar

**Authors:** A.Jusmawati<sup>1</sup>, Debsy Pattilima<sup>2</sup>, Ansariadi<sup>1</sup>, Indra Dwinata<sup>1</sup>

<sup>1</sup>FETP Universitas Hasanuddin; <sup>2</sup>South Sulawesi Province Health Office

**Background:** The burden of nosocomial infection has been neglected due to the difficulty in collecting reliable data. The result of Indonesian Health Facility Survey also indicates that many hospitals are not ready implement control and prevention of infection (CPI) due to limited infrastructure. The CPI surveillance system in the hospital is important because it is one of the benchmarks of the service quality of a health facility that must be implemented and to prevent the occurrence of nosocomial infection. Therefore this research aimed to evaluate the surveillance system in the hospital.

**Methods:** The design of CPI surveillance system evaluation was descriptive through a structured interview, the data collection was started from January to December 2017 in Labuang Baji, type B hospital. The respondents were hospital staffs who conducted surveillance of CPI in total five people. Secondary data include nosocomial infection cases from Jan – Dec 2017 was collected. Surveillance system such as method of data collection, data analysis and reporting were also reviewed.

**Results:** Currently, hospital collected number nosocomial infection cases eg the number of phlebitis, surgical site infection and number of urinary track infection. They disseminate the report within hospital only without share to other institution such Provincial Health office. Nosocomial infection data has not been analyzed adequately such as no appropriate graph and there is further investigation on risk factors of nosocomial infection. Nosocomial infection data only captured cases in inpatient and did not cover outpatients.

**Conclusions:** The CPI surveillance system has not been implemented adequately according to Regulation of the Minister of Health of the Republic of Indonesia number 27 the year 2017 and the recording are not yet integrated. Data analysis on nosocomial infection should be improved by using appropriate graph and should covered not only inpatient but also outpatient.

**Keywords:** CPI, evaluation, surveillance system, nosocomial

### 4. The Ability of Early Warning Alert and Response System (EWARS) to Detect Outbreak in Wonogiri District, Central Java Province, 2017

**Authors:** Menikha Maulida<sup>1</sup>, S. Heryanto<sup>2</sup>, T. A. Wibowo<sup>1</sup>

<sup>1</sup>FETP FKMKM UGM; <sup>2</sup>Wonogiri District Health Office, Central Java

**Background:** Delays in detecting outbreaks lead to increased number of cases and even death. Outbreaks in Wonogiri recorded were 7 events in 2016 and 6 events in 2017 but none were detected by EWARS. This study aimed to evaluate EWARS to detect outbreaks timely and representative.

**Methods:** This evaluation used descriptive study design. Subjects in this study were 25 of 34 EWARS surveillance officers in Public Health Center (PHC) and 1 district surveillance officer, sampling taken based on Slovin method. The evaluation conducted in Wonogiri District within December 2017-January 2018. Primary data were collected by interviewing the subjects using structured questionnaires and observations. Secondary data was obtained from EWARS data. Data analysis was done descriptively.

**Results:** There were 19 of 25 surveillance officers had not reported EWARS on time. Six EWARS officers who have reported on time have multiple positions as Satellite Health Center (SHC) officer or village midwife. The use of PHC Management Information System (SIMPUS) was not optimal on 15 of 19 EWARS officers who were not on time. There were 4 of 25 officers who have not reported EWARS data completely. Four EWARS officers, nobody had EWARS-specific-notebooks, 3 officers had working period of <6 months and 3 officers did not update the registered phone number in EWARS system.

**Conclusions:** Timeliness and completeness were the weakness of EWARS surveillance system. It cannot be used to detect outbreaks maximally. Good timeliness was found in officers with multiple positions as SHC officers or village midwives. The quality of EWARS data can be better for detecting outbreaks when optimizing the use of SIMPUS, creating Whatsapp group as a reminder media for reporting, and making specific notebooks for EWARS.

**Keywords:** EWARS, surveillance, outbreak detection, completeness, timeliness

## Session 3 – Malioboro 6

### Topic: Vector Borne Diseases

#### 1. Risk Factor of Dengue Mortality in Dr. Sardjito Hospital Yogyakarta

**Authors:** Ruri Trisasri<sup>1</sup>, Riris Andono Ahmad<sup>1</sup>, Eggi Arguni<sup>2</sup>

<sup>1</sup>FETP FKMK, UGM; <sup>2</sup>Department of Pediatric, Faculty of Medicine, Universitas Gadjah Mada

**Background:** *Dengue Shock Syndrome (DSS)* is dangerous disease occurs due to dengue infection and caused of dengue mortality. Dengue mortality increased from 11 people in 2014 to 35 people in 2015 at Dr. Sardjito hospital. The aim of this study was determine the risk factors for dengue mortality in Dr. Sardjito hospital Yogyakarta.

**Methods:** We conducted matched case control study (1:2). A case was patients with DSS who died with  $\leq 18$  years of age between January 2015 – December 2016. Control was patients with DSS who survived died with  $\leq 18$  years of age during same periode. Data taken from patient medical record in Dr. Sardjito hospital and interview with parents of patients by questionnaire. Sampling technique was conducted by totality sampling method with inclusion and exclusion criteria. Data analysis was performed using simple and multiple conditional logistic regressions with  $\alpha$  at 5%.

**Results:** Of 87 patients, 29 deaths and 58 survived. The probability of death in obesity children was 6.29 times higher than non-obesity children (OR = 6.29, 95% CI = 1.14 - 34.57, p-value = 0.03) and the probability of death in children with prolonged shock was 12.14 times higher than children without prolonged shock (OR = 12.14; 95% CI = 3.22 - 45.82; p-value = 0.00). Other variables were family occupation, family income, residential zones, transportation, treatment financing, accuracy of diagnosis in previous health facilities, and fluid resuscitation before being referred has no significant association with dengue mortality.

**Conclusions:** Obesity and prolonged shock were risk factors for dengue mortality in children. Further studies related to social determinants in dengue mortality with qualitative study are also necessary.

**Keyword:** Risk factor, Dengue mortality, Dengue Shock Syndrom, Prolonged Shock, Obesity.

#### 2. The Relationship of House Environmental With DHF Incidence in Palopo, 2016

**Authors:** Marwanti<sup>1</sup>, TM. Wahyono<sup>2</sup>

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Faculty of Public Health, Universitas Indonesia

**Background:** Palopo is one of dengue endemic areas in Indonesia. The house environment has an important role as a medium of interaction between the transmissible vector of DHF and other human diseases. The purpose of this research is to know the relationship between house environment factor (composite of breeding places, resting places and number of household members) with DHF incidence in Palopo in 2016.

**Methods:** This study was an analytic study with case control design. Total samples in this study were 236 samples with case and control ratio 1: 1. Cases were residents of Palopo City who had been hospitalized and diagnosed with DHF from January to December 2016 and Control were neighbors of cases who have never suffered from dengue fever or have never experienced symptoms of fever without cause for 2-7 days accompanied by two or more other signs / symptoms such as: nausea, headache, muscle and bone pain, rash on skin and the presence of positive bleeding in the same period. Multivariate data analysis was performed by multiple logistic regression test.

**Results:** The interaction between the environmental factors of the house and the education variable increased the risk of Dengue hemorrhagic fever by 2.87 times (95% CI: 1,218 - 6,791) after controlled by age confounder variable.

**Conslusions:** need to improve communication, information and education (IEC) related DHF that can be reached by all community through various forms of activities such as counseling combined with social activities and religious activities, periodical counseling, group counseling and others. In cooperation with the sub-district and urban village to participate in the success of the government program is "One House Movement One Jۇmantik" in each district and village.

**Keywords:** Dengue Haemorrhagic Fever, environmental factors, multivariate analyzes

### 3. Construction of DBD Count for Dengue Hemorrhagic Fever Surveillance Data Processing (Study in Lamongan District Health Office - Indonesia, 2017)

**Authors:** Kusuma Cutwardani<sup>1</sup>, A.C. Hidajah<sup>2</sup>, Sigunawan<sup>3</sup>

<sup>1</sup> FETP Student Universitas Airlangga; <sup>2</sup> Department of Epidemiology, Faculty of Public Health, Universitas Airlangga;

<sup>3</sup> Lamongan District Health Office

**Background:** The evaluation of Dengue Hemorrhage Fever (DHF) surveillance system conducted in Lamongan District showed that Lamongan District Health Office still experiencing constraints related to processing DHF data. This could give an impact on monitoring the incidence of dengue cases. The importance of data processing in surveillance of DHF cases was to monitor the incidence of DHF and to confirm possible outbreaks. The purpose of this study was to build a DHF data processing application that could be operated easily by users which was DBD Count.

**Methods:** The research method used in making DBD Count was prototyping model. The form was based on the book of Dengue Hemorrhagic Control Guidelines in Indonesia and the results of discussions with DHF Program Officer in Lamongan District Health Office.

**Results:** There were 8 types of DHF data forms. The data that had been entered in the DBD Count will be grouped by their classification and summed up automatically. By using DBD Count application, we also could transform the data into a map of dengue endemicity areas, transmission season graphs, and DHF IR and CFR trend graphs in the last 5 years. There was still limitation in this application, there was no warning option when data filling error happened.

**Conclusions:** Information generated from DBD Count were DHF case distribution, DHF incidence map and DHF trends incidence graph. The use of computers allows us to process large amounts of data. In addition, with automatic data processing can also reduce the human workload.

**Keywords:** DBD Count, Data Processing, Application, Dengue Hemorrhagic Fever, Surveillance

### 4. Implementation of Dengue Hemorrhagic Surveillance System in District of Blora 2017

**Authors:** Ahmad Musyafa<sup>1</sup>, Th. B. Rahayujati<sup>1</sup>, Henny Indriyanti<sup>2</sup>

<sup>1</sup> FETP FKMK, UGM; <sup>2</sup> District Health Office of Blora, Central Java, Indonesia

**Backgrounds:** In the last 49 years, dengue has emerged as a major health problem in Indonesia. Prevention and control of endemic diseases is done by improving surveillance system. Evaluation of surveillance in DHO of Blora, timeliness <80%, completeness <90% and use of non-uniform reporting forms. All respondents were nurses had never training (65,38%) and long served >10 years (46,15%). The purpose of the implementation is to increase knowledge and improve the accuracy and completeness of the report.

**Methods:** We conducted descriptive observational study in the form of evaluation and implementation. The subjects were 26 DHF surveillance officers at Public Health Center and 2 surveillance officers of Blora District Health Office. Implementation with refreshing and training of data processing applications on 17 to 18 January 2017. Evaluation done by used pre-post test during training and observation was done using t test.

**Results:** All surveillance officers (26 PHC and 2 DHO) followed refresher and processing data. Material delivery, introduction and application usage. Evaluation shows increased knowledge after training ( $\bar{x} = 15,38$ ; 95% CI = 12,4-18,4) whereas the result of reflection of application usage shows improvement of officer ability from before do not understand (77%) to very understand (96%). Evaluation after three months obtained the availability of the same form is 26 puskesmas (100), processing and presentation of 25 PHC (96,15%), completeness of 26 PHC (100%) but the accuracy of 9 and 12 weeks report still below 80%. Technical guidance is already underway with the meeting to find cases of potential disease outbreaks in 10 PHC inpatient.

**Discussions:** Generally the implementation of DHF surveillance system is successful, the training provided can improve staff knowledge, timeliness and completeness of report submission. Monitoring and evaluation needs to be done every week to ensure that the report meet national targets.

**Keywords:** Implementation of Surveillance System, DHF, Blora



## **Oral Presentations 4, 5 and 6**

Thursday, May 3, 2018/14.00-15.00

|  |   |
|--|---|
| <p style="text-align: center;"><b>Session 4: Malioboro 4</b><br/> <b>Vaccine Preventable Diseases 2</b><br/> Moderator: dr. Riris Andono Ahmad, MPH, PhD</p>         |   |
| 1.   | Vennesa V.M Susanto<br>“Investigation of Rubella Outbreak in Punggul Village Abiansema Subdistrict Badung District, Bali Province 2018”                       |
| 2.   | Nyoman Suardani<br>“Descriptive analysis of rubella outbreak in SMPN 3 Tegallalang, Tegallalang Sub District, Gianyar District, 2018”                         |
| 3.   | Vivin Fitriana<br>“Measles Outbreak in Vaccine Population, Wonolelo Village, Sawangan Sub-District, Magelang District, Central Java Province, Indonesia 2017” |
| 4.   | Dahlan Napitupulu<br>“Measles Investigation in Janjang and Nglebur Village, Jiken Sub District, Blora District, 2017”   |
| <p style="text-align: center;"><b>Session 5: Malioboro 5</b><br/> <b>Evaluation of Surveillance System 2</b><br/> Moderator: Dr. dr. Atik Choirul Hidajah, M.Kes</p> |   |
| 1.   | Kusnia Wati Rahayu<br>“Quality of Disaster Surveillance Data in Gunungkidul District, Special Region of Yogyakarta Province in 2017”                          |
| 2.   | Feri Rahman Hakim<br>“Evaluation Surveillance Of Tuberculosis Disease in Tangerang District Banten Province Indonesia, 2016”                                  |
| 3.   | Iffa Karina Permatasari<br>“Evaluation of Public Health Disaster Surveillance in Kulon Progo District, 2017”  |
| 4.   | Januar Tree Kencana<br>“An Epidemiological Analysis of Neonatal Tetanus Surveillance System in Serang District, Banten Province, Indonesia, from 2013-2017”   |
| <p style="text-align: center;"><b>Session 6: Malioboro 6</b><br/> <b>Program Evaluation</b><br/> Moderator: Dr. dr. Helda, M.Kes</p>                                 |   |
| 1.   | Irma Rubianti<br>“Evaluation of the Role of Dengue Mosquitoes Larva Observer (Jumantik) in Term of Dengue Vector Eradication Program in Denpasar, 2017”       |
| 2.   | Cahyadin<br>“Integrated Community-Based Intervention for the Prevention of Non-communicable Diseases in Blora, Central Java, Indonesia: A Program Evaluation” |
| 3.   | Mur Prasetyaningrum<br>“Evaluation of insecticide-treated bed nets programs to control of malaria in Purworejo, Central Java 2017”                            |
| 4.   | Andarias Paskawanto Kolawi<br>“Evaluation of Malaria Migration Surveillance Program – District of Wonosobo, 2017”   |

## Session 4– Malioboro 4

### Topic: Vaccine Preventable Diseases 2

#### 1. Investigation of Rubella Outbreak in Punggul Village Abiansema Subdistrict Badung District, Bali Province 2018

**Authors:** Vennesa V.M Susanto<sup>1</sup>, P.C Denny Yulianti<sup>1,2</sup>, D Harimbawa<sup>3</sup>, I.M.J Widyarta<sup>4</sup>

<sup>1</sup>FETP Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana, <sup>2</sup>Department of Public Health Preventive Medicine, Faculty of Medicine, Universitas Udayana, <sup>3</sup>Gianyar District Health Office,

<sup>4</sup>Badung District Health Office

**Background:** An increased clinical suspicion of measles has occurred in Punggul Village in December 2017-January 2018 from no cases to 14 cases. After a laboratory examination, the increase in measles clinical cases was confirmed as Rubella cases on 2 suspect cases. This study aimed to investigate Rubella outbreak in Punggul Village.

**Methods:** This investigation used an observational with case-control design. Cases were people who have fever and rash accompanied by one or more following symptoms of cough, cold, conjunctivitis, sore ear, shortness of breath, nausea and joint pain. Controls were family/neighbors of the cases, friends in school/work who didn't have symptoms. Total sampling was matched 1:2 according to age (25 cases and 50 controls). The investigation was conducted by interview and observation. Data was analyzed by Chi square test.

**Results:** Of the 25 cases, all have rash and fever (100%), accompanied by one or more symptoms of cough, runny nose, conjunctivitis, sore ear, shortness of breath, nausea, and joint pain. The highest attack rate was in Sub-village Teguan with 13 cases (18.6%), in 13-15 years old group (36.7%), and female (9.9%). Bivariate analysis showed that contact history was significantly associated with Rubella outbreak, with OR = 3.188 (CI95%:1.157-8.778, p=0.022). However, basic immunization status (OR:1.227), measles booster status (OR:1.085), occupancy density (OR:2.042) and undernourished (OR:1.833) did not significantly associated with Rubella outbreak.

**Conclusions:** Contact history was associated with outbreak Rubella. It is recommended that the Health Office can conduct health promotion on prevention of rubella transmission and isolate people who have clinical rubella symptoms approximately 2 weeks.

Keywords: Rubella, Outbreak, Risk Factors

#### 2. Descriptive analysis of rubella outbreak in SMPN 3 Tegallalang, Tegallalang Sub District, Gianyar District, 2018

**Authors:** Nyoman Suardani<sup>1,2</sup>, Anak Agung Sagung Sawitri<sup>1</sup>, Suganda Yatra<sup>2</sup>, Dewa Oka H<sup>3</sup>

<sup>1</sup>FETP Postgraduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana, <sup>2</sup>Buleleng District Health Office, <sup>3</sup>Gianyar District Health Office

**Background:** Rubella is a contagious viral infection and potential outbreak disease. On January 20<sup>th</sup>, 2018, the Gianyar District Health Office reported 6 rubella clinical cases at SMPN 3 Tegallalang. All symptomatic cases are almost the same as fever, cough, cold, conjunctivitis and rash. This study aims to investigate the clinical outbreak of rubella in SMPN 3 Tegallalang.

**Methods:** Data was collected by interviews, measurement and literature review. Outbreak confirmed by serum specimen examination. Data of age, sex, symptoms, interval between fever and rash, nutritional status, immunization status and specimen management were analyzed descriptively. Data was presented with tables, diagram, graphs and narratives.

**Results:** The investigation found 7 rubella clinical cases at SMPN 3 Tegallalang. Six (86%) are IX grade students and a teacher (14%). Attack rate of outbreaks is 1.06% with Case Fatality Rate (CFR) is 0%. Three cases (43%) have under nutritional status, 3 have good nutritional status (43%) and the rest are over nutritional status. All cases (100%) are male. Six cases (86%) were 14 and 15 years old. Immunization status of measles was confirmed in 86% of cases. All cases (100%) showed the dominant symptoms of fever and rash. The time interval between fever and rash is 0 to 6 days, but 30% have 2 days interval. Laboratory results from 6 specimens showed that 1 specimen was confirmed rubella, 3 measles equivocal and 2 were negative.

**Conclusions:** A confirmed rubella outbreak occurred at SMPN 3 Tegallalang based on clinical symptoms and laboratory results. It is needed to improve health promotion of measles/rubella by early warning alert and response system with Case Based Measles Surveillance (CBMS) mechanism and adequate monitoring of specimens.

Keywords: Rubella, Virus, Outbreak, Gianyar

**3. Measles Outbreak In Vaccine Population, Wonolelo Village, Sawangan Sub-District, Magelang District, Central Java Province, Indonesia 2017**

**Authors:** Vivin Fitriana<sup>1</sup>, Hary Satrisno<sup>1</sup>, Adl Isworo<sup>2</sup>, Citra Indriani<sup>1</sup>, Riris A. Andono<sup>1</sup>

<sup>1</sup>FETP FKMK UGM, <sup>2</sup>Politeknik Kesehatan, Kementrian Kesehatan RI

**Background:** On June 19<sup>rd</sup> 2017, surveillance officer of Sawangan 1 public health center report to Magelang District Health Office regarding 4 cases of suspected measles in Wonolelo Village and on July 3<sup>rd</sup> 2017, we found again 8 cases of suspected measles in Wonolelo Village Sub-District Sawangan District Magelang. We conducted an investigation to verify outbreak, to find additional cases and to control measles infection.

**Methods:** This is descriptive study. We collected data by active case finding using interview. Cases were people with fever and rash followed by one or more symptoms of cough, cold or conjunctivitis started from April 2<sup>nd</sup> 2017 until September 21<sup>st</sup> 2017 located in Wonolelo Village and had contact with measles cases. Blood sample was taken from cases and sent to laboratory for IgM-measles test.

**Results:** Transmission begin in April 2017 and investigation was done in July 2017. Preference to go to health facilities in the neighboring district was the main contributor for late detection. We found 117 cases with 14 (11.96%) confirmed cases and 2 (1.7%) fatal cases. The highest attack rates were found in male (1.92%), 1-5 years old (9.93%). Index case was 5.5 years old boy who was hospitalized and visited by others cases within the infectious time. We found 56% cases had history of measles vaccination. Immunization coverage in the Wonolelo village level was high (113.3%). But vaccine efficacy is low (Bentrokan: 7.7%; Denoan: 25.71%; Malang 0.51%). Local habits in the village at the time outbreak is to visit sick person or patients visit in healthy people or attend cultural event in the neighboring area. Vitamin A supplementation for all children under 16 years old, health education, cross-sector collaboration and crash immunization program were conducted during investigation.

**Conclusions:** Measles outbreak was confirmed and affected 3 hamlet in Wonolelo Village from April 2<sup>nd</sup> 2017 until September 21<sup>st</sup> 2017. Local habit to visit sick people and mobility contributes to disease transmission. Cross-border notification and collaboration should be re-activated, measles cold chain should be evaluated and measles surveillance system need to be strengthening.

**Keywords:** outbreak, measles, vaccine

**4. Measles Investigation in Janjang and Nglebur Village, Jiken Sub District, Blora District, 2017**

**Authors:** Dahlan Napitupulu<sup>1</sup>, Andarias Paskawanto Kolawi<sup>1</sup>, D. Pramono<sup>1</sup>, K. Mualim<sup>2</sup>

<sup>1</sup> FETP FKMK, UGM; <sup>2</sup>Blora District Health Office, Central Java

**Background:** On Tuesday, May 19, 2017, District Health Office of Blora state that in village Janjang Village and Nglebur Village there were 7 people diagnosed as clinical measles cases. By 2016, the incidence of measles in 44 cases, in 2015 there were no cases of measles, in 2014 of 43 cases. Investigations are conducted with the aim to ensure the outbreak of measles, determining risk factors for outbreaks and taking prevention.

**Methods:** An investigation is performed by using an active case search to find new cases. A case control study of 1: 2 was conducted to determine risk factors. The case is an individual suffering from a disease with clinical symptoms of heat and rash accompanied by one of the symptoms of cough, cold or red eyes and diarrhea. Controls are those that have no symptoms in the case and have a history of contact with the case. Risk factors observed were immunization status, history of measles and traveling measles 2 weeks before measles outbreak. The data collection of patient identity, the history of measles and traveling within 2 weeks before measles outbreak was done by interview using a questionnaire. Patient immunization status is collecting by secondary data of puskesmas or from immunization book. The analysis was performed using chi square and logistic regression to get the value of the odds ratio (OR)

**Results:** There were total 19 cases with 27.69% age <9 years and 0.66% from Janjang village. The measles outbreak occurs for 6 weeks (April 10, 2017 - May 29, 2017) with peak cases in the third week of May 2017. History of respondent who has never measles before is a risk factor that affects this outbreak (OR = 5.56; 95% CI = 2.93 - 71.43). While immunization status and traveling history are not risk factors.

**Conclusions:** There has been an outbreak of measles in Janjang Village and Nglebur Village, Jiken Subdistrict on April 10, 2017 until May 29, 2017 with index case sir. Da. Mode of transmission through contact with patients in the home environment. Selective immunization needs to be done to break the transmission chain.

**Keywords:** outbreak, measles, Blora

## Session 5 – Malioboro 5

### Topic: Evaluation of Surveillance System 2

#### 1. Quality of Disaster Surveillance Data in Gunungkidul District, Special Region of Yogyakarta Province in 2017

**Authors:** Kusnia W. Rahayu<sup>1</sup>, S.H. Sukoco<sup>2</sup>, R.A. Ahmad<sup>1</sup>

<sup>1</sup>FETP FKKMK, UGM, <sup>2</sup>Gunung Kidul District Health Office, Yogyakarta Province

**Background:** The phenomenon of Cempaka hurricane happened on November 27, 2017 led to floods, landslides, and high winds in Gunungkidul District. Since there is not any guidance on disaster surveillance system, so Gunungkidul District Health Office made a format for disease data collection. The study aims at knowing the quality of disaster surveillance data in Gunungkidul District.

**Methods:** This study type was a descriptive evaluation study. Primary data were collected from 1 surveillance officer in Gunungkidul District Health Office and 17 surveillance officers in Public Health Center (PHC) which provide health services to disaster affected areas. Secondary data were disaster health-related data collected from health office and PHCs.

**Results:** There were approximately 43 sites of health care services provided by 17 PHCs and assisted by five hospitals. The rate of participation of disease reporting was 15 out of 17 PHCs (88,2%) actively sent reports, in which there are 4 PHCs (23,5%) sent their reports in time, 12 PHCs (70,6%) sent complete reports and 8 PHCs (47,1%) had synchronized data with health office. Whilst there was no hospital did the reporting, even, as many as 5 hospitals (100%) did not know the instruction of disease reporting. It also found that poor coordination with hospitals, incomplete and not timely data reporting from PHC medical teams were becoming main issues.

**Conclusions:** The quality of disaster surveillance data has not met the aspects of representativeness, timeliness and completeness of the PHCs' report as well as the participation of hospitals in the reporting. Therefore, a standardized disaster surveillance system included a form for data collection was needed to manage coordination between health office, PHCs, and hospitals.

**Keywords:** surveillance, disaster, timeliness, completeness, gunungkidul

#### 2. Evaluation of Surveillance Tuberculosis Disease in Tangerang District Banten Province Indonesia, 2016

**Authors:** Feri Rahman Hakim<sup>1</sup>, Dwi Agus SetiaBudi<sup>2</sup>, Mondastris Korib Sudaryo<sup>3</sup>,

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Field Supervisor; <sup>3</sup>Departement of Epidemiology Universitas Indonesia

**Background:** Indonesia is the country with the second largest burden of TB in the world. In Tangerang district the trend of CNR tuberculosis in the last 3 years has continued to increase, it is followed by the increasing number of MDR TB cases, that the burden of TB is getting heavier in Tangerang district. This evaluation had been done to describe the performance of tuberculosis surveillance and provide recommendations.

**Methods:** descriptive with qualitative and quantitative approach, interview with 12 tuberculosis programmers in health services that are already integrated with DOTS and 1 programmers in district health office. This evaluation was conducted on June-September 2017.

**Results:** The sensitivity attribute of the surveillance system was not good, because the findings cases of tuberculosis (CDR) only 53,3% in 2016, in representativeness attribute not yet representative of the entire population because only 15% of health services are integrated with DOTS, predictive value positive is still low seen from microscopy centre of tuberculosis on external quality assessment with microscopic read error about 40% of 10 microscopy centre of tuberculosis follow EQA.

**Conclusions:** Tuberculosis surveillance must be continue, but it needs to improve on some attributes of the surveillance system that is sensitivity, representativeness and predictive value positive. The recommendation for the Tangerang district health office to increased case finding of tuberculosis with active case finding, improvement of external networks with Public Private Mix, and conducting monitoring and evaluation to microscopy centre of tuberculosis for quality improvement microscopic examination of tuberculosis.

**Keywords:** Tangerang district, Tuberculosis, Evaluation, surveillance

### 3. Evaluation of Public Health Disaster Surveillance in Kulon Progo District, 2017

**Authors:** Iffa Karina Permatasari<sup>1</sup>, Sugiarto<sup>2</sup>, Titik Hidayati<sup>3</sup>

<sup>1</sup>Field Epidemiology Training Program, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada; <sup>2</sup>Kulon Progo District Health Office; <sup>3</sup>Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta

**Background:** Kulon Progo is one of districts that has experienced disasters, such as flood and landslide. Kulon Progo District Health Office has public health surveillance during disaster to identify health problems and control measures quickly. However, disaster surveillance conducted by some primary health cares (PHCs) has not been done routinely during the disaster. This study aimed to determine the causes of the weakness of disaster surveillance system implementation in Kulon Progo District.

**Methods:** This study was an observational study using mixed methods. The study was conducted to surveillance officers at 9 PHCs in Kulon Progo District who had conducted surveillance during disaster, using questionnaire and focus group discussion. The variables studied in this study were the availability of personnel and facilities, as well as surveillance components. Data analysis was done descriptively.

**Results:** None of the surveillance officers have ever attended any training on disaster surveillance, and 4 of 9 officers did not yet understand the implementation of disaster surveillance. There was one officer who had not been included in the PHC disaster team. Lack of officer was not experienced in 4 (44%) PHCs because they involved village surveillance officer (JSD) and other stakeholders in disaster surveillance. Only 2 PHCs had disaster surveillance reporting forms and no PHC had disaster surveillance guidelines.

**Conclusions:** The causes of the weakness of disaster surveillance implementation in Kulon Progo District were lack of officers' understanding on disaster surveillance, shortage of officers, and absence of guideline and reporting forms at PHCs. There is a need of training for surveillance officers, provision of guideline and reporting form, also advocacy for assignment of PHC surveillance officer and involvement of JSD in disaster surveillance implementation.

**Keywords:** Public Health Surveillance, Disaster, Evaluation, Primary Health Care

### 4. An Epidemiological Analysis of Neonatal Tetanus Surveillance System in Serang District, Banten Province, Indonesia, from 2013- 2017

**Authors:** Januar Tree Kencana<sup>1</sup>, Ade Irwan Afandi<sup>2</sup>, Tri Yunis Miko<sup>3</sup>, Renti Mahkota<sup>3</sup>

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Field Supervisor; <sup>3</sup>Departement of Epidemiology Universitas Indonesia

**Background:** Neonatal Tetanus (NTT) is the most common cause of death during delivery because of unclean core care and a lack of maternal immunization. That happened in infants between the 3<sup>rd</sup> and 28<sup>th</sup> days of age after birth. Data base of health ministry has discovered and reported in Indonesia 2013 to 2016, NTT case fatality rate (CFR) has been decrease from 53,8% to 42%, While in Banten Province, Indonesia CFR 50.9%.

**Methods:** Surveillance data routinely collected from 2013 to 2017. Based on the investigation data selected variable are date of onset of illness, sub district area, Birth attendance and place delivery, Tetanus toxoid (TT) Vaccination status of pregnant women, Umbilical Cord care, Antenatal care and Neonatal Visit, diagnosis and symptom.

**Results:** During five years period, the result showed that 28 patients of Neonatal tetanus were reported. Case Fatality Rate (CFR) 85%, Home delivery 79% (22/28), All patients were clinically diagnosed cannot suck normally, and becomes stiff has convulsions. Average between of birth the onset of illness was 4 days, Birth attendant by paraji 86% (23/28), Umbilical cord cutters using scissor 79% (22/28), and use blade of split bamboo, knife so razor blade 21% (6/28), Cord care with concoction 79% (22/28), No maternal Immunization 68% (19/28), Never antenatal care 36% (10/28) and incomplete 43% (12/28), complete 21% (6/28). Most common in the sub district are Kramat Watu, Cikeusal, Lebak Wangi (13 of 28).

**Conclusions:** Birth attendant and place delivery, status immunization incomplete of mothers and unclean cord care could have predisposed the neonatal infection. Recommend to improving maternity care on clean deliveries and increasing coverage immunization (TT) of especially pregnant women and childbearing age so awareness was given to the community about Neonatal tetanus and important of Vaccination (TT) for its prevention in the future.

**Keywords:** Neonatal tetanus, Serang, Banten province, Indonesia

## Session 6 – Malioboro 6

### Topic: Program Evaluation

#### 1. Evaluation of The Role of Dengue Mosquitoes Larva Observer (Jumantik) in Term of Dengue Vector Eradication Program in Denpasar, 2017

**Authors:** Irma Rubianti<sup>1</sup>, A.A.S.Sawitri<sup>1</sup>, I Ketut Gita<sup>2</sup>

<sup>1</sup>FETP Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; <sup>2</sup>Denpasar District Health Office

**Background:** Denpasar is an endemic area of dengue where the number of dengue fever cases is ranked 5th and its incidence rate (IR) is ranked 8th in Bali Province. The larvae free rate (ABJ) was reported quite high by the dengue mosquito larva observer (*jumantik*), but the DHF cases was also still high. Therefore it was a necessity to evaluate the jumantik activity in Denpasar city.

**Methods:** Qualitative evaluation included inputs, processes and outputs. Data collection was done through interviews with questionnaires on 2 *jumantik* coordinators, 2 *jumantik* and 1 surveillance officer at Denbar II Community Health Center, 2 DHFsurveillance supervisors, 1 head of DHFsurveillance in Denpasar City Health Office. Interviews were also conducted on 10 community members in the target area. The analysis was done descriptively.

**Results:** The input evaluation showed the system of recruitment of jumantik cadres was already according to criteria, *jumantik* salary increased in the year 2017, but it was less suit to their work load. Process evaluation showed that there was inconsistency of *jumantik* response and members of the community regarding to the implementation of *jumantik* duties and responsibilities. On the other hand, DHF surveillance supervisors in the Denpasar District Health Office stated there were still community members refusing larva monitoring. The secondary data evaluation showed that of 264 cases reported at Denpasar District Health Office in 2015, there were 103 cases that could not be investigated, meaning that surveillance officers through jumantik have not succeeded in doing epidemiologic investigation (EI) in all reported cases. In addition there were still members of the community who ask for fogging.

**Conclusions:** Public acceptance of jumantik activities was still low so it inhibits the optimal role of the *jumantik*. In addition, *jumantik* basic tasks and functions still exceeded its capacity.

**Keywords:** Evaluation, *Jumantik*, DHF

#### 2. Integrated Community-Based Intervention for the Prevention of Non-communicable Diseases in Blora, Central Java, Indonesia: A Program Evaluation

**Authors:** Cahyadin<sup>1</sup>, Baning Rahayujati<sup>1</sup>, Henny Indriyanti<sup>2</sup>

<sup>1</sup>FETP FKKMK UGM; <sup>2</sup>Blora Health Office, Central Java, Indonesia

**Background:** Integrated health center for non-communicable disease (Posbindu) was established to conduct early detection and monitoring of risk factors non-communicable diseases. In Blora District, Posbindu program was started in 2013, but the implementation of Posbindu program has never been assessed. This study was to evaluate the process of Posbindu in Blora District.

**Methods:** The evaluation was a descriptive study on the process of Posbindu according to Ministry of Health guidance. Participants were two district health officers, 10 primary health officers and 15 village health volunteers. Data collected using standard questionnaire and observation checklist.

**Results:** Evaluation results showed that 8 health officers and 12 volunteers were untrained. Twelve of 15 Posbindu have not been optimally implementing socialization, risk factors assessment, counseling, and health promotion. The participant of Posbindu was 84.94% women and 64.63% was more than 45 years old. On average, there were 20 participants on each Posbindu each month.

**Conclusions:** Posbindu has been organized regularly in Blora District, but there were weaknesses in the process. Addition technical facilities are needed to support the implementation of the program. Collaborating program by involving schools, institutes, professional groups or organizations could improve Posbindu coverage.

**Keywords:** program evaluation, risk factors, NCD.

### 3. Evaluation of Insecticide-treated Bed Nets Programs to Control of Malaria in Purworejo, Central Java 2017

**Authors:** Mur Prasetyaningrum<sup>1</sup>, Z. Chomariyah<sup>2</sup>, T. Agung Wibowo<sup>2</sup>

FETP FKKMK, UGM<sup>1</sup>; Purworejo District Health Office, Central Java<sup>2</sup>, Yogyakarta Province Health Office

**Background:** Malaria is a disease caused by a parasite of the genus *Plasmodium* and transmitted through the bite of *Anopheles* spp. An increase in API number in Purworejo district from 0.1 ‰ to 0.5 ‰ in 2016. Control efforts undertaken by DKK Purworejo is by distributing insecticide treated mosquito net in PKMF and routine program.

**Methods:** The design of program is descriptive evaluation, samples taken by purposive sampling. The measuring tool used is the questionnaire. Analysis presented in narration and tables.

**Results:** Evaluation done on input, process and output aspects of implementation insecticide-treated bed nets both routine and mass programs (PKMF). Disadvantages and weaknesses are found in all three aspects evaluation. Input aspect, some items are standard requirements of storage of mosquito nets in the warehouse puskesmas is still not fulfilled, the minimum availability of guidebook netting insecticide at puskesmas (40%), and there are not SOP. Aspects of the process, found on the planning stage of the routine mosquito net program, has not taken into account the targets and costs implementation of activities. Implementation of recording and reporting of distribution results at Puskesmas still very weak (mosquito net 37.5% and 0% routine). Cross-program involvement in distribution and promotion of routine mosquito nets has not been done DKK programmers. SOP standart does not exist yet and the officer of malaria at puskesmas do not understand about target of mosquito net program routine causing misunderstanding to distribution of mosquito nets, mosquito nets only given in positive cases of malaria (90%). Monitoring evaluation has not been implemented on routine mosquito net program. Output aspect, coverage of mosquito net with target location 53,8% while the population (sleep group) 50.8%. The output of the mosquito net routine program can not be evaluated. Utilization of mosquito net in the community, from 24 respondents 66,7% always worn every night to sleep and the number of bed nets received according to sleep group 58.3%.

**Conclusions:** Program routine insected-treated bed net has not run well, so the program outputs can not be evaluated. The coverage of the insected-treated bed net program has not reached the target (location 53,8%, population 50,8%), with the reason the number of bed nets is not sufficient.

**Keywords:** Program evaluation, Insecticide-treated Net, Malaria, Purworejo

### 4. Evaluation of Malaria Migration Surveillance Program – District of Wonosobo, 2017

**Authors:** Andarias P. Kolawi<sup>1</sup>, Misinem<sup>2</sup>, T. Wibowo<sup>3</sup>

<sup>1</sup>FETP FKKMK, UGM; <sup>2</sup>Wonosobo District Health Office; <sup>3</sup>Yogyakarta Provincial Health Office

**Background:** District of Wonosobo had reached the maintenance phase. The program conducted was surveillance of malaria migration. This evaluation to describe of program's input, process and output.

**Methods:** Logic model used to describe the program's elements. The subjects of evaluation were malaria program manager, village malaria workers (VMW) in 10 community health centers (CHC) and 2016 malaria program report. Data were collected through interviews using questionnaires and analyzed descriptively.

**Results:** 30%(3) of CHC had no laboratory staffs, and of 20%(2) without VMW. The fund was considered inadequate by 33%(3) of CHC. Malaria medicines were adequate. Laboratory materials were considered inadequate by 20%(2) of CHC. The case finding activities were active case detection (ACD), passive case detection (PCD), and malaria surveys. ACD reported by 56%(9) of receptive CHC. PCD were reported by 77%(10) of CHC [which 50%(5) were receptive CHC] and by 23%(3) of malaria posts. 80%(8) of CHC had no collaboration with private health care facilities because 87.5%(7) no agreement. Mass fever surveys (MFS) and mass blood surveys (MBS) reported by 50%(5), 0%(0) of CHC respectively. CHC didn't report MFS and MBS because of no case, 80%(4), 80%(8) respectively. All CHC would report the found cases quickly, investigated and treated them, and followed-up the treatment. CHC didn't perform surveillance and vector control because of no case, 62,5%(5), 100%(9) respectively. The ABER was 12% of 20% of the targeted population. Total cases were 18 of imported cases. The API was 0.012‰ of the target 0.7‰. All cases were treated with ACT.

**Conclusions:** The maintenance phase had been kept well. However, any of program's elements need to be improved to maintain this phase in the future.

**Keywords:** Malaria, surveillance, migration, evaluation

## **Oral Presentations 7, 8 and 9**

Thursday, May 3, 2018/15.00-16.00

|  |   |
|--|---|
| <p style="text-align: center;"><b>Session 7: Malioboro 4</b><br/> <b>Food and Water Borne Diseases 1</b><br/> Moderator: Dr. dr. Tri Yunis Miko Wahyono, MSc</p> |   |
| 1.   | Hary Satrisno<br>"Food Poisoning at The Traditional Ceremony of Nyadran in Jombang Sudimoro<br>Srumbung Magelang Central Java in 2017"  |
| 2.   | Masaruddin<br>"Outbreak Salmonellosis in Balongsari Village, Rawamerta District, Karawang Regency<br>West Java Province on September 5, 2017"   |
| 3.   | Muammar<br>"Outbreak Investigation of Hepatitis A in Hasanuddin Pesantren Bajeng Distric, Gowa,<br>South Sulawesi"  |
| 4.   | Ni Wayan Mega Sri Wahyuni<br>"Risk Factor of Diarrhea Outbreak in Banjar Kepitu, Kenderan Village, District of<br>Gianyar, 2017"  |
| <p style="text-align: center;"><b>Session 8: Malioboro 5</b><br/> <b>Evaluation of Surveillance System 3</b><br/> Moderator: Ansariadi, S.KM, M.Sc.Ph, PhD</p>   |   |
| 1.   | Tiara Purba<br>"Evaluation of Measles Surveillance System in Bantul District, Yogyakarta - Indonesia,<br>2017"  |
| 2.   | Siti Hatijah<br>"Integrated Disease Surveillance System in Yogyakarta City 2017"  |
| 3.   | Ika Puspita Asturiningtyas<br>"Quality of Nutrition Surveillance Data in Detecting Malnutrition Case Among Children<br>Under Five Years of Age in Wonogiri District, Central Java 2017" |
| 4.   | Meliana Depo<br>"Evaluate of Non-communicable Disease Surveillance in Bantul District, 2016"  |
| <p style="text-align: center;"><b>Session 9: Malioboro 6</b><br/> <b>Situational Analysis 1</b><br/> Moderator: dr. Citra Indriani, MPH</p>                      |   |
| 1.   | Veronika Laurensia Ofong<br>"Analysis of Diphtheria Situation in East Java Province 2013 - October 2017"  |
| 2.   | John Silwanus Kaku<br>"Situational Analysis of Vaccine-preventable Diseases in Bandung Regency, West Java<br>Province Year 2017"  |
| 3.   | Harni Utari Nennong<br>"Tuberculosis Disease of Epidemiology in Blitar District Years 2014-2017"  |
| 4.   | Husda Oktaviannoor<br>"Situational Analysis Communicable Disease , Jakarta in 2015-2016"  |



## Session 7 – Malioboro 4

### Topic: Food and Water Borne Diseases 1

#### 1. Food Poisoning During Nyadran Ceremony in Jombang Sudimoro Srumbung Magelang Central Java In 2017

**Authors:** Hary Satrisno<sup>1</sup>, Vivin Fitriana<sup>1</sup>, Riris Andono Ahmad<sup>1</sup>, Adi Isworo<sup>2</sup>

<sup>1</sup>FETP FKKMK, UGM; <sup>2</sup>Poltekkes Kemenkes Semarang

**Background:** On May 24<sup>th</sup>, 2017, Magelang District Health Office received a report of suspected food poisoning from Srumbung Health Center. There were 55 people with dizziness, fever, diarrhea, nausea, and vomiting after attending *nyadran* in Jombang on May 22<sup>nd</sup>, 2017. Investigations were conducted to confirm the suspected outbreak, influencing factors, and sources of transmission.

**Methods:** Active case finding was conducted. Risk factors were determined using cohort study. A case was a person attending *nyadran* on May 22<sup>nd</sup>, 2017 experiencing one of the symptoms: diarrhea, nausea, and/or vomiting with/without other symptoms as dizziness, fever, abdominal pain, weakness, headache, cold sweats, back pain, and bloated from May 22<sup>nd</sup>-24<sup>th</sup>, 2017. Data were collected using standardized questionnaires, environmental observations, and interviews with the food handlers. The data were analyzed using chi-square test and Poisson regression. Sample was collected to determine both biological and chemical causes of extraordinary conditions.

**Results:** Total attendance were 106 people. There were 53 people poisoned, consisting of males (54.55%) and females (56.25%) aging <20 years-old. The most frequent symptoms were dizziness (96.27%), diarrhea (86.79%), and fever (81.13%). Cases were spread in common source, incubation period range was 2-34 hours; the mean case peak is 18.59 hours. Analysis indicates that the poisoned food is tofu (RR 2.148, 95% CI 1.334-3.459). It was stored at a room temperature and processed the day before the event. After being processed, it was only kept at a room temperature and covered by paper. Food sample cannot be collected because leftover food was unavailable.

**Conclusions:** There was outbreak of food poisoning in Jombang on May 22-23, 2017. The conditions were triggered by tofu contaminated by *Bacillus cereus* bacteria due to bad storage and kept at the room temperature after being processed. Community should implement the principles of food safety.

**Key words:** food poisoning, cohort study, extraordinary conditions, *Bacillus cereus*

#### 2. Outbreak Salmonellosis in Balongsari Village, Rawamerta District, Karawang Regency, West Java Province on September 2017

**Authors:** Masaruudin<sup>1</sup>, Asri C. Adisasmita<sup>2</sup>, Saleh Budi Santosa<sup>3</sup>

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Departement of Epidemiology, Universitas Indonesia, <sup>3</sup>Field Supervisor

**Background:** The main causes of death and illness in Indonesia one of them is a disease caused by food. Food is a major pathway for the spread of pathogens and toxins produced by pathogenic microbes. Food can also cause serious problems if they contain toxins from chemical contaminants, harmful substances or natural toxins contained in food, some of which cause food poisoning outbreaks.

**Methods:** The method used is a case control study using a ratio of 1:1 where the sick as much as 26 people, so the total respondents in this study as many as 52 people.

**Results:** Attack Rate on food poisoning outbreak on 5 September 2017 of 4.5%, Proportion of cases by sex, men 43% and women 57%, Proportion of cases by age group largely distributed in the age group of 22-44 years of 54% The epidemic curve of this food poisoning outbreak is common-source with an incubation period of 6 hours to 23 hours, with mean incubation period of 6.5 hours, most cases distributed at 4-9 hours, laboratory test results of vomiting specimens of salmonella species. The risk of food poisoning is almost 2 times greater / OR 1.65 (95% CI 0.5 - 5.1) in respondents who consume chicken soup, the risk of food poisoning 1 times larger /OR 1.26 (95 % CI 0.33 - 4.7), in respondents who consumed food of soy chicken type Etiology Outbreaks of food poisoning at Balongsari Village, Rawamerta sub-district was caused by chicken soy sauce and chicken soup contaminated with salmonellosis and *C. perfringes* bacteria.

**Conclusions:** There has been an outbreak of food poisoning in Balongsari Village, Rawamerta Sub-district on September 5, 2017.

**Keywords:** Food Poisoning, Case Control Study, Karawang Regency

### 3. Outbreak Investigation of Hepatitis A in Hasanuddin Pesantren Bajeng, Gowa District, South Sulawesi

**Authors:** Muammar<sup>1</sup>, Debsy Pattilima<sup>2</sup>, Ansariadi<sup>1</sup>, Ny Wayan Deisy Arisanti<sup>1</sup>, A. Jusmawati<sup>1</sup>, Indra Dwinata<sup>1</sup>

<sup>1</sup>FETP Universitas Hasanuddin; <sup>2</sup> South Sulawesi Province Health Office

**Background :** In September 2017, Puskesmas Pabentengan of Gowa District reported 6 cases of Hepatitis A suspect at Pondok Pesantren Sultan Hasanuddin Bajeng Sub-district. This investigations aimed to identify the source of outbreak, sources of transmission and provide recommending for control measures.

**Methods :** A case control study was employed in this investigation. Cases were all patients with clinical symptoms of Hepatitis A. Serological test, IgM and IgG were performed to confirmed several suspects. A controls was those who did not have hepatitis A symptoms in the selected from same pondok pesantren (Islamic boarding school). Univariate and bivariate analysis at SPSS software were used to identify significant risk factor.

**Results :** The school have 520 students and a total of 47 cases meet with case definition (IR = 9.2%). A total of eleven cases were selected for futher Laboratory Tests using IgG and IgM and all were confirmed positive . The first case occurred in week five (5) In July 2017, outbreaks peak at week 5 five months of September and stopped at the beginning of October 2017. Age twelve has the highest attack rate (24.4%) followed by age fourteen ( AR=11.4%) and thirteen years (AR=9.5%. This study also found that AR among female age twelve was higher among female that that of among male. In contrat, at aged fourteen yearold, the attack rate among male was higher than that off among female. Hand washing without soap appear the most significant risk factors (OR = 3,226). Environmental lab results water examination on water drinking facilities indicated that water drinking has been contaminated with *E. Coli* which has similar mode of transmission with Hepatitis A virus.

**Conclusions:** This investigation reveals that the unhygienic practices and drinking water would the source of hepatitis A outbreak. Hand washing practices has been suggested to reduce the risk of hepatitis A exposure. Chlorination or source of drinking water and replacement of UV equipment's for drinking water treatment have been to reduce contamination from *E.Coli* and Hepatitis A.

**Keywords:** Hepatitis A, outbreak, pesantren.

### 4. Risk Factor of Diarrhea Outbreak In Banjar Kepitu, Kenderan Village, District of Gianyar 2017

**Authors:** Ni Wayan Mega Sri Wahyuni<sup>1</sup>. Dewa Oka Harimbawa<sup>2</sup>. Putu Suariyani<sup>3</sup>

<sup>1</sup>FETP Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; <sup>2</sup>Gianyar District Health Office; <sup>3</sup>Study Program MIKM Universitas Udayana

**Background :** Diarrhea is one of the environmental-based diseases and is a health problem in developing countries. Indonesia is a high-risk area of diarrheal disease and is a disease that can cause an outbreak. On May 2017 there was outbreak of diarrhea reported with 53 cases in banjar kepitu, Kenderan Village, Gianyar. On the same time there were two wedding party in those area. To find out the cause of diarrhea occurrence needs further research.

**Methods:** Case control study to identify the risk factor of Diarrhea outbreak. Cases (53) are the people whose have the diarrhea symptom and Control (53) are the healthy people, from banjar kepitu and also consume the food and beverage from both of wedding party. Data was collect with interview and structured qestionnaire, including : age characteristic. sex, kind of cosumption and place of party.

**Results:** The bivariate analysis using Chi-square show that the risk factor of diarrhea is number of cases on party 1 ( $p=0,004$ ,  $OR=13,619$ ,  $CI=1,689-109,791$ ) and satay consumption ( $p=0,000$ ,  $OR=9,4$ ,  $CI=2,959-29,807$ ). From interview known that at party 1, there was no steaming process after slaughtering the pigs.

**Conclusions:** Based on interview and analysis, the risk factor of diarrhea outbreak in banjar kepitu, kenderan village is kind of consumption of satay in Party 1, because it's not optimal cooking process of meats. Promotion of healthy cooking process of meat in every party is importance as one of diarrhea outbreak prevention program.

**Keywords:** Outbreak, Diarrhea, Foodborne illness, Kenderan village

## Session 8 – Malioboro 5

### Topic: Evaluation of Surveillance System 3

#### 1. Evaluation of Measles Surveillance System in Bantul District, Yogyakarta, Indonesia, 2017

**Authors:** Tiara Purba<sup>1</sup>, Dibyo Pramono<sup>1</sup>, Samsu Aryanto<sup>2</sup>

<sup>1</sup>FETP FKKMK UGM; <sup>2</sup>Bantul District Health Office, Yogyakarta

**Background:** Measles is one of infectious diseases and become health problem in Bantul District, as there are measles cases and outbreak. Measles surveillance in Bantul District reported in PD3I website but there are some weaknesses. This research aimed to evaluate the completeness, timeliness, and representativeness of measles surveillance system in Bantul District 2017.

**Methods:** The research was a descriptive observational study conducted from December 2017 to January 2018. Participants were 28 respondents, consisted of one surveillance officer at district health office and 27 surveillance officers of Public Health Centres (PHCs). The evaluation was done by comparing the implementation of measles surveillance with the Measles Surveillance Technical Guideline from Ministry of Health, Republic of Indonesia 2012. Data was collected using questionnaires and observations or document studies. Data analysis was done descriptively.

**Results:** C1 reported in PD3I website, and also reported in hardcopy (25,9%) and softcopy by email (59,3%). As many as 88,9% of PHCs entered their data without analysis. C1 reported on time by 4 of 27 PHCs. 23 PHCs with reporting not in time, because 15 PHCs having  $\geq 3$  multi tasks and 20 PHCs with shared computer use. The ownership of Measles Surveillance Technical Guideline 2012 in 14 PHCs. Data was not representative because 14 PHCs did not have the C1 reports of doctor or midwives private services.

**Conclusions:** The quality of measles surveillance data in completeness, timeliness and representativeness was not good enough. Improving of the officer capacity by training in data input, processing, analyzing and visualisation in PD3I website. PHCs intensively coordinate with doctors or midwives private services in measles cases reporting.

**Keywords:** surveillance system, evaluation, measles, Bantul

#### 2. Integrated Disease Surveillance System in Yogyakarta City 2017

**Authors:** Siti Hatijah<sup>1</sup>, Citra Indriani<sup>1</sup>, Susilawati<sup>2</sup>

<sup>1</sup>FETP FKKMK UGM; <sup>2</sup>Yogyakarta District Health Office, Yogyakarta, Indonesia

**Background:** An integrated surveillance system for infectious and non-infectious diseases is essential, given Indonesia is currently facing a double issue. Non-communicable diseases are the leading cause of death, but on the other hand, communicable diseases are still a health problem. This study aimed to Evaluate of an integrated disease surveillance system in Yogyakarta city, 2017.

**Methods:** Descriptive observational study were conduct interviewing 18 health center surveillance officers, 18 heads of public health centers and 18 in charge of community health efforts at public health centers in Yogyakarta City. Data were collected by interview and observation

**Results:** Integrated surveillance system of disease has been implemented by all public health centers (100%), This system can take place well because the support of computer software development that has been done by District Health Office of Yogyakarta through surveillance and health information system section. PHC information system (SIMPUS) and quality health information system (QHIS) as part of local health information system (SIKDA) enable all data and information to be well connected. the timeliness and completeness of report submission reach 100%. However, the ability of processing, analysis and presentation of data still has not reached 60% because PHC surveillance officers have nurse education background (94,4%) who have double duty (100%) and 27,78% has not attended any surveillance trainee. The existing surveillance data cannot be used optimally.

**Conclusions:** Generally, integrated disease surveillance system in Yogyakarta has been running well, but it still need to be done by developing technical skill of surveillance officer through periodically training activity.

**Keywords:** Evaluation, STP, Yogyakarta

### 3. Quality Of Nutrition Surveillance Data In Detecting Malnutrition Case Among Children Under Five Years Of Age In Wonogiri District, Central Java 2017

**Authors:** Ika P. Asturiningtyas<sup>1</sup>, T.A. Wibowo<sup>1</sup>, S. Heryanto<sup>2</sup>

<sup>1</sup>FETP FKMK UGM; <sup>2</sup>Wonogiri District Health Office

**Background:** Malnutrition among children under five years of age in Wonogiri still found every year. Weighing program for children under five years of age in Posyandu becomes an important program in detecting malnutrition. However, some error still found in data reported. The study was conducted to find out the quality of nutrition surveillance data taken from weighing program in Posyandu.

**Methods:** This was an evaluative study using quantitative descriptive analysis which conducted on December 2017 to January 2018. Subjects of this study were nutritionists in District Health Office and 25 Primary Health Care (PHC) which selected randomly using Slovin samples size. Data collected by interviews and observation on surveillance data reporting form.

**Results:** In 2017, 19 PHC (72%) collected data from midwives and 6 PHC (24%) from Posyandu. The data collected was an aggregate number, so the nutritionist could not know the nutritional status of each child. Only one PHC (4%) collected body weight and height data of each child from Posyandu. Nutritionist in all PHC and district health office still found some mistakes on data entry reported. Some mistakes also found in determining nutritional status because the calculation of nutritional status in most PHC (84%) was using standards from WHO or Ministry of Health manually.

**Conclusions:** Quality of nutritional surveillance data based on weighing program in Posyandu still unsatisfying because some mistakes still found in data entry and in the determination of the nutritional status. It is necessary to change the reporting system by entering the data of body weight and height every child under five years of age into the software which able to calculate automatically the nutritional status.

**Keywords :** surveillance, nutrition, malnutrition, Posyandu, Wonogiri

### 4. Evaluate of Non-Communicable Disease Surveillance in Bantul District, 2016

**Authors:** Meliana Depo<sup>1</sup>, D. Pramono<sup>1</sup>, S. Aryanto<sup>2</sup>

<sup>1</sup>FETP FKMK UGM; <sup>2</sup>Bantul District Health Office, Yogyakarta, Indonesia

**Background:** Surveillance is important to prepare the health program. In 2015, Bantul District has implemented a web-based non-communicable surveillance system, but there is no data available to illustrate the incidence of non-communicable diseases. This research aims to evaluate the implementation of non-communicable disease in Bantul district 2016 and provide interventions to improve surveillance implementation.

**Methods:** Descriptive observational method is used to describe the implementation of non-communicable disease surveillance in Bantul district. Samples of the research involved 28 respondents, consisting one program facilitator of Bantul District Health Office and 27 program facilitator of the community health center non communicable disease Bantul district. Evaluation from aspects of input, process, output and assessment of surveillance attributes.

**Results:** The collected data are primary data that gathered by using questionnaires. Intervention provided a modified form of non-communicable disease offline and mini training how to use the new forms. Input aspects including dual tasks  $\geq 3$  programs (60.7%) and unfunded funds (46.4%). From the process aspect, data collection using portal (50.0%), data processing (53.6%), analysis and interpretation (21.4%), while output aspects including case data and risk factor are not adequate. The surveillance attributes such as the system is complicated, inflexible, timing of unscheduled, unrepresentative, data resulting in poor data quality.

**Conclusions:** Surveillance system of non-communicable disease in Bantul district is not optimal yet due to the low attention of facilitators towards the function of data and facts as the basis for planning and execution. We recommend to improving the qualification of the facilitators through training, procuring the adequate facilities and simplify the online form.

**Keywords:** surveillance, evaluation study, non-communicable disease

## Session 9 – Malioboro 6

### Topic: Situational Analysis 1

#### 1. Analysis of Diphtheria Situation in East Java Province 2013 – 2017

**Authors:** Veronika Ofong<sup>1</sup>, A.C.Hidajah<sup>2</sup>, Agung<sup>3</sup>

<sup>1</sup>FETP Student Universitas Airlangga, <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Universitas Airlangga,

<sup>3</sup>East Java Provincial Health Office

**Background:** Diphtheria remain as a serious health problem in Indonesia especially in East Java because its extended spreading from year to year. In 2003, diphtheria cases was reported by 3 districts and cities in East Java. Diphtheria cases continue to increase annually until 2011 it was reported by all districts and cities in East Java. Diphtheria CFR in 2016 was 1.5%. Various efforts of control and prevention had been done by East Java Provincial Health Office, but there was still a number of diphtheria cases and deaths. The purpose of this study was to describe the scale of cases and outbreaks response.

**Methods:** This was a descriptive study. The analysis was performed on diphtheria cases and deaths data in 2013 - October 2017, immunization data, and laboratory results of diphtheria cases data.

**Results:** The trend of diphtheria cases in 2013 - October 2017 has fluctuated, but cases remain high. Confirmed diphtheria cases in 2013 – October 2017 was 4.7%. The largest confirmed case distribution was in less than 15 years age group with incomplete immunization status. CFR of the confirmed diphtheria cases was 12.76%. There were several districts and cities that had 100% diphtheria CFR; namely Nganjuk, Probolinggo, Bondowoso, Bojonegoro and Situbondo. The high CFR was due to delays in case management. ORI and BLF in reported cases areas were done based on consideration of local health officials because there is no standard setting.

**Conclusions:** East Java was diphtheria endemic area. Confirmed diphtheria cases found still below 15%. Immunization was the highest diphtheria risk factor. There was a delay in case finding. Implementation of ORI and BLF need a standard. Therefore, it was necessary to monitor the immunization activities, implementation of ORI and BLF in diphtheria high risk areas and application of community based surveillance.

**Keywords:** Analysis, Diphtheria, Epidemiology, Situation.

#### 2. Situational Analysis of Vaccine-preventable Diseases in Bandung Regency, West Java Province Year 2017

**Authors:** John S. Kaku<sup>1</sup>, Helda<sup>2</sup>

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Universitas Indonesia

**Background:** vaccine-preventable diseases are still a problem in Bandung Regency, among others: diphtheria incidence (3,3/1.000.000 population), incidence of measles case (147/1.000.000 population) and TB prevalence (191/100.000 population). This situational analysis aims to identify the vaccine-preventable disease, determine priority problem and identify causes of priority problem.

**Methods:** this assessment using descriptive study with quantitative and qualitative approaches. Priority problem are determined through brainstorming with surveillance and immunization officers using the Paho-adapted hanlon methodology.

**Results:** vaccine-preventable diseases in Bandung Regency identified as follows: diphtheria incidence has increased from 0,8/1.000.000 population in 2016 to 3,3/1.000.000 population in 2017. A total of 12 cases of diphtheria suspects were reported in the year of 2017. The incidence of measles has also increased from 29,4/1.000.000 population in 2015 to 147/1.000.000 population in 2016 (532 cases). TB prevalence in the year of 2016 were reported 191/100.000 population. The proportion of TB cases in children among all TB cases was 25,64%. There were no cases of neonatal tetanus, hepatitis B and polio reported in Bandung Regency in the last 3 years, whereas pertussis is found only in 2015 with 1 case. The brainstorming using paho-adapted hanlon methodology determined measles as the priority problem.

**Conclusions:** measles is a major problem of vaccine-preventable disease in Bandung Regency due to poor vaccine quality, low coverage of immunization, vaccine-rejection by some group of society and lack performance of surveillance officers. Based on the evidence, it is recommended for the district health office and public health centre officers to initiate measles campaign and sweeping to increase immunization coverage, conduct health promotion and improve the quality of surveillance officer's performance.

**Keywords:** situational analysis, vaccine-preventable diseases, Bandung Regency.

### 3. Tuberculosis Disease of Epidemiology in Blitar District Years 2014-2017

**Authors:** Harni U. Nennong<sup>1</sup>, A. Nugroho<sup>2</sup>, A. C Hidajah<sup>3</sup>

FETP Student Universitas Airlangga<sup>1</sup>, East Java Province Health Office<sup>2</sup>, Departement of Epidemiology, Faculty of Public Health Universitas Airlangga<sup>3</sup>.

**Background:** Tuberculosis is an infectious disease that continues to be a health problem in the world especially in developing countries. The number of tuberculosis cases in Blitar Distcrit in 2017 was 668 cases with the CNR of 57,89/100,000. The purpose of this study was to describe the epidemiological distribution of tuberculosis in Blitar District in 2014-2017 based on people, time and place.

**Methods:** This research is descriptive research using case data of tuberculosis which is described by characteristic (Sex, age), place and classification of case. Data obtained from the results of tuberculosis surveillance in Blitar District Health Office 2014-2017.

**Results:** Trend of tuberculosis cases in 2014-2017 tends to increase in 2016 (690 cases) and decline in 2017 (668 cases). The spread out of tuberculosis cases by sex from 2014-2017 has not changed, the proportion of men is greater than women. By 2017 the proportion of men is 59.43% and women is 40.56%. In the age group the distribution of tuberculosis cases tended to be fixed, the proportion of the highest age group was 55-65 years with a proportion of 21.10% in 2017. According to the area, the highest proportion of cases was reported in RSUD Ngudi Waluyo with a proportion of (22.60%) and public healt center of Srengat with a proportion of (10.14%) in 2017. Based on the classification of cases, the number of patients who died in 2017 was 39 cases, this number increased when compared to 2016 which is only 26 cases. The number of treatment cases failed in 2017 in 2 cases, this number decreased from the previous year.

**Conclusions:** Trend of tuberculosis cases in Blitar District is fluctuated. Based on gender, the proportions most are men. Based on the highest age group 55-65 years and the number of cases in the RSU Ngudi Waluyo. An increase in the number of cases who died. Whereas the case of the treatment failed to decreased from the previous year.

**Keyword:** Epidemiology, Tuberculocis, Trend and Blitar District

### 4. Situational Analysis Communicable Disease, Jakarta in 2015-2016

**Authors:** Husda Oktaviannoor<sup>1</sup>, R. Djuwita<sup>2</sup>

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Universitas Indonesia

**Background:** Communicable diseases (CD) can rapidly become a global problem and pose threats to national stability, and may require enormous human and economic resources to combat. Communicable disease in Indonesia is still high. The identification and priority of CD's burden will help to facilitate prevention and prevention strategies. This study aims to see the distribution and priority of CD in Jakarta 2015-2016.

**Methods:** Situation analysis in this study using descriptive study design with quantitative and qualitative. Quantitative components are obtained from the reports in the Health Office of DKI Jakarta Province. The qualitative component with Hanlon method is used for CD priority. Problems, the seriousness of the CD problem, the effectiveness of the countermeasures and the PEARL (suitability, ease of economic handling, acceptance level, resource availability, and legality) are used to assess and calculate priority scores.

**Results:** Jakarta 2016, Pneumonia < 5yo (3067.3/100,000), diarrhae (1949.7/100,000), Typhoid (358.2/100,000), TB (96.5/100,000) HIV/AIDS (51.2/100,000 and 5.54/100,000), Dengue Haemorrhagic Fever/DHF (216.4/100,000), Measles (68.9/100,000) Hepatitis A,B,C (5.2/100,000; 3.3/100,000; 1.4/100,000), AFP Non Polio (2.5/100,000), Leptospirosis (0.13/100,000). There is an increase in the size of CD from 2015-2016. Based on the Hanlon method, DHF is the highest priority CD issue.

**Conclusions:** CD is a health problem in Jakarta and an ever-increasing incidence/prevalence from 2015-2016. Community can participate in public health problem solving especially in preventive, Health Office DKI Jakarta Province can do an evidence based health planning for the preparation of the DKI Jakarta Provincial Health Strategic Plan 2018-2022 and the required health budget plan based on the magnitude of the problem to be solved.

**Keywords:** Communicable disease, Jakarta, Public health problem, Situational analysis

## **Oral Presentations 10, 11 and 12**

Thursday, May 3, 2018/16.15-17.15

|   |  |
|---|--|
| <b>Session 10: Malioboro 4</b><br><b>Food and Water Borne Diseases 2</b><br>Moderator: dr. Wihardi Triman, MQIH |  |
| 1.  | Rieski Prihastuti<br>"Catered Lunch Suspected Outbreak in A Garment Factory - Sleman District, 2017"   |
| 2.  | Cok Istri Dewiyani Cakrawati<br>"Case Study: Food Poisoning Outbreaks in SMPN 3 Petang, Badung Regency"  |
| 3.  | Erna Yati Renyaan<br>"Investigation of Hepatitis A Outbreak at Male Boarding School, Sleman District Year 2018"  |
| 4.  | Faridatun Khasanah<br>"Outbreak Investigation Of Food Poisoning In Dusun Pingit Lawang Temanggung District 2017"   |
| <b>Session 11: Malioboro 5</b><br><b>Evaluation of Surveillance System 4</b><br>Moderator: Sugiarto, S.KM, MPH  |  |
| 1.  | Wafiyah Rizki Wiariyanti<br>"The Difference of Influenza-Like Illness Case Definition as Cause of High Cases in Early Warning Alert and Response System – Banjarnegara 2017" |
| 2.  | Nurjanna<br>"Evaluation of Healthcare-Associated Infections Surveillance System in Primary Health Care in Kulon Progo District Special Region of Yogyakarta"                 |
| 3.  | Abdullah<br>"Evaluation of the Completeness of Non-Communicable Disease Risk Factors Data Surveillance at Integrated Health Center in Banjarnegara District"                 |
| 4.  | Gumson Josua Tampubolon<br>"Evaluation of Maternal Mortality Recording and Reporting by Coordinator Midwives in Blora Regency 2017"  |
| <b>Session 12: Malioboro 6</b><br><b>Situational Analysis 2</b><br>Moderator: Bayu Satria Wiratama, S.Ked, MPH  |  |
| 1.  | Ajie Mulia Avisena<br>"Health Situation Analysis in Bogor City 2016"   |
| 2.  | Faridha Almira<br>"An Analysis Problems of Health In The Blitar District of East Java 2017"  |
| 3.  | Pian Kapiso<br>"Situation Analysis Of Noncommunicable Diseases (NCDs) in Karawang District, West Java Province, 2017"  |
| 4.  | Debri Rizki Faisal<br>"Situational Analysis of Non Communicable Diseases in Cimahi City 2017"  |

## Session 10 – Malioboro 4

### Topic: Food and Water Borne Diseases 2

#### 1. Catered Lunch Suspected Outbreak in A Garment Factory - Sleman District, 2017

**Authors:** Rieski Prihastuti<sup>1</sup>, M. Depo<sup>1</sup>, T.A. Wibowo<sup>1</sup>, Misinem

<sup>1</sup>FETP FKKMK UGM; <sup>2</sup>Wonosobo District Health Office

**Background:** On October 19, 2017, Yogyakarta Islamic Hospital reported 38 garment employees with nausea, vomiting, headache, abdominal pain, and diarrhea after they had lunch on October 18, 2017, to Sleman District Health Office. Objectives of this study were to ensure the outbreak and identify source and route of transmission.

**Methods:** Case control study 1:1 was conducted to analyze food items that caused the outbreak. Cases were people who got abdominal pain, diarrhea, nausea with/without vomiting, fever, and headache after they had lunch on October 18, 2017. Samples included leftover lunch box, vomit, tap water and drinking water had been sent to the laboratory. Data was analyzed descriptively as frequency table and analyzed used chi-square in bivariate analysis.

**Results:** All of 196 garment employee was included in this study. The common symptoms of this outbreak were abdominal pain (84.4%), diarrhea (72.8%), nausea (61.6%), headache (52.8%), vomiting (12.8%), and fever (6.4%) with median incubation period 13 hours (range 1-34 hours). Highest attack rate and odds ratio was found in grilled chicken (AR 58.49%) with OR 11.023 (CI 95% 1.383 - 87.859; *p* value 0.005). Almost all samples showed mold, except drinking water.

**Conclusions:** Based on its sign and symptoms, also incubation period, diarrheal *Bacillus cereus* and *Clostridium perfringens* were suspected to be the causative agent of the outbreak. Limitation of this study were improper sample handling and no sample of food handler and stools in the food caterer. Outbreak investigation training needed to be given to the hospital worker and monitoring should be done to the food caterer to prevent another outbreak.

**Keywords:** food poisoning, foodborne disease, disease outbreaks

#### 2. Case Study: Food Poisoning Outbreaks in SMPN 3 Petang, Badung Regency

**Authors:** Cok Istri Dewiyan Cakrawati<sup>1</sup>, A.A.S. Sawitri<sup>2</sup>, Cok Istri Dharma Astiti<sup>3</sup>, I Made Jaya Widyarthi<sup>4</sup>

<sup>1</sup>FETP Postgraduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; Public Health and Preventive Medicine Department Universitas Udayana, <sup>2</sup>Bali Province Health Office, <sup>3</sup>Badung District Health Office

**Background:** Bacterial contamination in food is one of the cause of Food Poisoning Outbreaks. In 2016, there were 12 cases in Bali Province, as many as 41.67% occurred in the school canteen. Bali Provincial Health Office on December 4, 2017 has reported the occurrence of cases of food poisoning in SMPN 3 Petang, Badung regency. The outbreak investigation was conducted to determine the epidemiology and risk factors.

**Methods:** Surveys were conducted by visiting schools and interviewing 205 students and staff who were at risk and present at the time of data collection. Food risk factors were interviewed retrospectively using a structured questionnaire. Data was analysed by Chi-square statistic test. Laboratory specimens were taken and examined at the Provincial Laboratories including food samples, water from food processing kitchen and student's vomit.

**Results:** Investigation results from 35 cases showed symptoms of nausea (25%), vomit (17%), dizziness (30%), abdominal pain (23%), diarrhea (3%), weakness (37.1%), fever (5.7%) and tingling (17.1%). The incubation period were ranging from 30 minutes to 6 hours after consuming food from the school canteen. The occurrence of the cases by time were following the common source types. Food handler's interviews showed that the food processing did not fully apply the HACCP principle. Bivariate Test Results show, *nasi bungkus* with RR = 7.42 (CI:2.65-19.77, *p* <0.05), *ote-ote* with RR = 1.03 (CI95%:0.50-2.10, *p*=0.95), *soto* with RR = 1.46 (CI95%:0.64-3.34, *p*=1.46), *tofu* with RR = 1.18 (CI95%: 0.33-4.24, *p*=0.80). Laboratory test results confirmed *E. coli* in samples of food consumed and *S. aureus* in vomit samples.

**Conclusions:** Based on data analysis, *nasi bungkus* was indicated as a risk factor for outbreaks. A good sampling process is required to support the results of the investigation. On the other hand, supervision and policy support is required especially legalization of healthy school canteen certificate.

**Keywords:** Outbreak, Food Poisoning, *E. Coli*, *S. Aureus*.



### 3. Investigation of Hepatitis A Outbreak at Male Boarding School, Sleman District, 2018

**Authors:** Erna Yati Renyaan<sup>1</sup>, Baning Rahayujati<sup>1</sup>, Citra Indriani<sup>1</sup>, Isa Dharmawidjaja<sup>2</sup>

<sup>1</sup>FETP FKKMK UGM, <sup>2</sup>Rumah Sakit Prambanan, Yogyakarta

**Background:** On January 15, 2017, Moyudan Public Health Center (PHC) reported 30 cases of Hepatitis A in a Male Boarding School to Sleman District Health Office. The health office formed a team consisting of FETP students, PHC and male boarding school (Ponpes) clinical staff to conduct epidemiological investigation. The purpose of the investigation is to ensure the outbreak, know its risk factors, and control the outbreak.

**Methods:** The active case finding was done to all students in Ponpes using a cohort study design. Data collection on risk factors and characteristics were conducted by interview using questionnaire and observation. Blood sampling for laboratory IgM anti HAV testing was conducted by PHC and Ponpes clinical staff.

**Results:** There were 50 cases of 209 students. Six from nine students' samples identified positive of IgM Hepatitis A. Most cases were junior high school students (28,7%) and lived in Abubakar building (38,6%). Period of outbreak was within September 2017 to February 2018 and the peak of the outbreak was in first week of January 2018. Using shared eating utensils was the main risk factor of hepatitis A (aRR: 2.050, 95% CI: 1,002-4,194) while other habits were not risk factors for the outbreak. The first case index was when one students returned home and had contact with neighbors who had symptoms of yellow eyes appeared on September 10th 2017. Control measures from PHCs and Ponpes clinic were done by promoting clean and healthy living behavior (PHBS) and counseling about hepatitis.

**Conclusions:** Hepatitis A outbreak occurred in September 2017 to February 2018, which mostly transmitted through using shared eating utensils. It required weekly supervision on PHBS and eating habits by Ponpes, PHC and Health Office.

**Keywords:** Investigations, Outbreaks, Hepatitis A, Sleman.

### 4. Outbreak Investigation Of Food Poisoning In Dusun Pingit Lawang, Temanggung District 2017

**Authors:** Faridatun Khasanah<sup>1</sup>, Julianti J Sabono<sup>1</sup>, Dibyo Pramono<sup>1</sup>, Khabib Mualim<sup>2</sup>

<sup>1</sup>FETP FKKMK, UGM, <sup>2</sup>Temanggung District Health Office, Indonesia

**Background:** On December 29, 2017, PHC Pringsurat reported to Temanggung District Health Office that 87 residents in RT 1 and 2 RW 2 Dusun Pingit Lawang had diarrhea after attending a *khitanan* ceremony on Desember 28, 2017 at 8.00 p.m on the owner's house. Investigation was conducted to determine the cause and risk factor of food poisoning.

**Methods:** Cohort Retrospective study was used to estimate the risk factors. Case definition was a person who attending or obtaining a rice box on *khitanan* ceremony on December 28, 2017 in Dusun Pingit Lawang and experiencing diarrhea with or without abdominal pain, and can be followed by other symptoms on December 28-29, 2017. Data of cases were collected by interview using questionnaire. Relative Risk (RR) estimation was calculated by using Chi-square and Poisson Regression. Food and biological sample were tested by laboratory of BBTCLPP Yogyakarta.

**Results:** There were 115 cases (attack rate 51,5%) with the main symptoms were an abdominal pain (93,9%) and diarrhea (93%). The outbreak occurred on December 28, 2017 at 10.00 p.m until December 29, 2017 at 10.00 p.m, with the climax of the cases was occurred at 00.00-06.59 a.m on December 29, 2017. Multivariate analysis showed that grilled chicken was the cause of food poisoning (aRR 24,2766 95%CI=3,4871-169,0099). It also found that Food handlers did not wash their hand before touching food, did not cover the food and a very long cooking process. The laboratory test showed grilled chicken contaminated with *Staphylococcus aureus*.

**Conclusions:** Food poisoning outbreak in Dusun Pingit Lawang, Temanggung District on December 28-29, 2017 was caused by *Staphylococcus aureus* in grilled chicken. Food handling training for Pingit Lawang residents was needed as a prevention.

**Keyword:** *Staphylococcus aureus*, contamination, food poisoning, prevention

## Session 11 – Malioboro 5

### Topic: Evaluation of Surveillance System 4

#### 1. The Difference of Influenza-Like Illness Case Definition As Cause of High Cases in Early Warning Alert And Response System, Banjarnegara 2017

**Authors:** Wafiyah R. Wiariyanti<sup>1\*</sup>, T. A. Wibowo<sup>1</sup>, E. C. Prasetyaningsih<sup>2</sup>

<sup>1</sup>FETP FKMK, UGM, <sup>2</sup>Banjarnegara District Health Office, Center Java.

**Background:** ILI case in Banjarnegara District continues to increase. The number of ILI cases in 2016 cases was 461 cases per 52 weeks and increased in 2017 to 590 cases per 48 weeks. The objective of the study aims at determining the causes of high ILI case detection in the EWARS surveillance system.

**Methods:** The study design is descriptive. The study was conducted in Banjarnegara District within December 2017 to January 2018. The research subjects were one surveillance officer of District Health Office and 26 officers from 35 public health centers in Banjarnegara District, taken based on Slovin method with margin of error (e) of 10%. Primary data were collected by interview using questionnaire, while secondary data were taken from EWARS data.

**Results:** The results showed that 9 officers in public health centers (35%) use case definition that different from the standard. Most of these officers (89%) are new and have not received any training. Also, the feedback provided by district health office so far do not address the issue of ILI case definition. All public health center officers perform temperature measurements only in children with fever indication. There are only 13 out of 26 officers at public health centers (50%) who have already collected data from private clinics.

**Conclusions:** The increase of ILI cases occurred because of not all officers understand the standardized case definition of ILI. Also, there is no training for new officers and sufficient feedback from district health office. It is required more training on standardizing ILI definition and conducting regular feedbacks related to ILI surveillance to monitor ILI definitions.

**Keywords:** Influenza like illness, EWARS surveillance.

#### 2. Evaluation of Healthcare-Associated Infections Surveillance System in Primary Health Care in Kulon Progo District Special Region of Yogyakarta

**Authors:** Nurjanna<sup>1</sup>, Baning Rahayujati<sup>2</sup>, Titik Hidayati<sup>3</sup>

<sup>1</sup>FETP FKMK UGM; <sup>2</sup>Kulon Progo District Health Office, Special Region of Yogyakarta; <sup>3</sup>Faculty of Medicine and Health Sciences, Universitas Muhammadiyah, Yogyakarta

**Background:** Health care-Associated Infections (HAIs) surveillance is an essential activity in the infection control and prevention (ICP) program since it can be used as a source of information on morbidity and mortality of HAIs events and as a benchmark of service quality at healthcare facilities. HAIs surveillance in Kulon Progo District has been done through improvement of patient's quality and safety (IPQS) but has not optimally run. The purpose of this research is to identify the weakness of HAIs surveillance system in Kulon Progo District, Special Region of Yogyakarta year 2017.

**Methods:** This research used descriptive observational study design. The unit of analysis was six responsible officers from six inpatient primary health care (PHC) in Kulon Progo District. The surveillance flow and HAIs data were reviewed. Structured interviews using questionnaires and observations were done to the officers involved in data collection.

**Results:** Evaluation showed that four of six PHC officers had never received ICP training and had not established ICP management team. Report completeness was still deficient, only one of six PHC routinely sent reports to the district health office. The IPQS reporting form used was incomplete because there was only a column for TB infection and no columns for other infection-related such as urinary tract infection, surgical site infection, bloodstream infection, ventilator-associated pneumonia, hospital-acquired pneumonia, phlebitis, and decubitus.

**Conclusions:** The surveillance system has not run very well in inpatient PHC and has not provided complete information on the morbidity and mortality of all HAIs diseases. Management support is needed through establishment of ICP team and training for officers. The reporting form needs to be redesigned in order to gather more information needed to know the trend of HAIs incidence.

**Keyword:** evaluation, surveillance, HAIs, infection control and prevention program

### 3. Evaluation of The Completeness of Non-Communicable Disease Risk Factors Data Surveillance At Integrated Health Center In Banjarnegara District

**Authors:** Abdullah<sup>1</sup>, Trisno Agung Wibowo<sup>1</sup>, Elisabeth Cucuk Prasetyaningsih<sup>2</sup>

<sup>1</sup>FETP FKMK UGM; <sup>2</sup>Banjarnegara District Health Office

**Background:** Until 2017, Banjarnegara district has been had Integrated Health Center (Posbindu) for non-communicable diseases (NCD) spread over 22 Public Health Centers (PHCs). However, since not all PHCs did the data reporting, so that there is a gap between recapitulation data of Posbindu in district health office with the update online data in non-communicable disease website that caused the data analysis were not representatively described activities in Posbindu. This evaluation aims to know the constraints related completeness of NCD data surveillance of Posbindu, as well as risk factors in Banjarnegara District Health Office

**Methods:** Descriptive research was conducted with Posbindu officers in PHCs officers and Health office staff. The research was held on December 2017. Sampling technique used was purposive sampling with 23 respondents. Evaluated variables were the completeness of data surveillance. Data collection was conducted through interview guided with questionnaire

**Results:** From 23 officers who did Posbindu data recording and reporting there were only 3 who have ever uploaded Posbindu report to the NCD online website. It was caused by 1) the limitations of facilities such as laptops for data recording activities (15 respondents were sharing computer/laptop with other program manager), 2) There was reluctance from the officers to re-input the data from Posbindu recaps book to the offline format, 3) Incomplete form because the visitors did not bring the identity card as the requirements for data uploading. Besides, the feedback done by officers have not maximum yet

**Conclusions:** Some obstacles related the completeness of data surveillance report on the NCD risk factors at Posbindu in Banjarnegara District Health Office were because of the limitation of data recording facilities (laptops), officers' reluctance, incomplete form and lack of feedback from the officers

**Keywords:** Surveillance, Posbindu, Completeness of Data, Evaluation

### 4. Evaluation of Maternal Mortality Recording and Reporting by Coordinator Midwives in Blora Regency 2017

**Authors:** Gumson Josua Tampubolon<sup>1</sup>, Theodola Baning Rahayujati<sup>2</sup>, Henny Indriyanti<sup>3</sup>

<sup>1,2</sup>FETP FKMK UGM; <sup>3</sup>Blora District Health Office

**Background:** Maternal Mortality Rate (MMR) in Blora District in the last 3 years is quite high compare to the Sustainability Development Goals (SDGs) indicators that 72/100,000 live births. The highest mortality rate was in 2016 that reached 185/100,000 live births. Although the rate declined to 126/100,000 live births in 2017. Furthermore, this study was conducted to determine the application of maternal mortality recording and reporting in Blora District.

**Methods:** The design of the study is a descriptive observational study. The subject of the study is 26 coordinator midwives in primary health service (PHC) and 2 programmer Maternal and Child Health (MCH) was implemented Desember 11, 2017 to January 30, 2018. Data were collected by interview and observation and analyzed as quantitative data.

**Results:** Data recording and reporting carried out through cohort recapitulation in local area monitoring MHC, showed that there are 10% data reported to the district health office were not punctual and 100% women of reproductive age (WUS) data were not collected by coordinator midwives. This was cause non of them ever had socialization of maternal mortality surveillance system. Out of 15 maternal mortality, there were 5 (33,3%) epidemiology investigation forms that were incompletely filled by coordinator midwives responsible and 12 (80%) PE were conducted by midwives, which led to information bias and under reporting because midwives not had training of epidemiology investigation maternal mortality. Furthermore, there are 26,9% coordinator midwives who have not had any training of MCH recording and reporting.

**Conclusions:** The evaluation showed recording and reporting maternal mortality not optimal. That it is required to build and capacitas, knowledge thought training on MMS system, recording and reporting, as well as the implementation of epidemiology investigation.

**Keywords:** Evaluation, Maternal Death, Surveillance System, Blora

## Session 12 – Malioboro 6

### Topic: Situational Analysis 2

#### 1. Health Situation Analysis in Bogor City 2016

**Author:** Ajie M Avisena

FETP Student Universitas Indonesia

**Background:** Health and education is the main pillar to improve the quality of life so that if the two sectors have high quality then it will be achieved condition of society welfare. The city becomes a magnet for the newcomers to achieve a better life. Almost all programs in health are still concerned in Bogor City including maternal and child health programs, infectious diseases, non-communicable diseases and environmental health. This research aims to identify issues, determine priority of issue, and provide recommendation to address health issue in the city of Bogor.

**Methods:** The research method is descriptive explorative as well as doing problem assessment based on PAHO method conducted by competent officials. The study was conducted from December 2016 to March 2017 using secondary data from health center and hospital reports and program outcomes. The data obtained will be compared between the achievement level with the minimum service standard target and the central / regional strategic plan.

**Results:** The research finds that Dengue Hemorrhagic Fever (score 1200), TB (960) and HIV (960) as three priority health problems.

**Conclusions:** Several factors arguably link to DHF: population density, spatial planning, climate and vector resistance. Recommendations for conducting development with a planned pattern, increase knowledge and community participation to conduct healthy living behavior as well as increasing the number and quality of health personnel.

**Keywords:** situation analysis, city, diseases

#### 2. An Analysis Problems of Health in The Blitar District of East Java 2017

**Authors:** Faridha Almira<sup>1</sup>, A. C. Hidajah<sup>2</sup>, A. Nugroho<sup>3</sup>

<sup>1</sup>FETP Student Universitas Airlangga; <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Universitas

Airlangga; <sup>3</sup>East Java Province Health Office

**Background:** An analysis problems of health was conducted to find out the description of a health problem in region where as the results serve as the basis in doing the planning and implementation of disease control appropriately program. This study aims to find out the priority problems of health that occur in the Blitar District at 2017.

**Methods:** This study is a descriptive observational study conducted at the P2P Department of Blitar District Health Office in January 2018. The types of data collected are the data on demographic characteristics, health status, morbidity and mortality data were obtained from the Blitar District Health Profile in 2014-2017, surveillance reports and interviews to the officer. The study was done by stages: data collection, data processing, data analysis and interpretation of data. Determination of priority health issues carried out using USG method by providing the score on the form assessment based on the criteria of Urgency, Seriousness, Growth.

**Results:** Based on USG scoring results obtained by order of priority issues as follows: increasing CFR of Dengue Hemorrhagic Fever (score: 139), increasing number of people with AIDS (score: 139), the increasing new cases of tuberculosis (score: 128), the number of cases people with mental disorders (score: 125), hypertension (score: 113), a low coverage of the IVA (score: 111) and Diabetes Mellitus (score: 110).

**Conclusions:** There were three priority health issues: increased CFR of Dengue Hemorrhagic Fever, increased number of people with AIDS and an increase the new cases of tuberculosis. Advanced analysis is needed to determine the root cause of the problem, in order to determine the appropriate problem-solving alternatives.

**Keywords:** Health Problem Analysis, USG, Blitar

### 3. Situation Analysis of Noncommunicable Diseases (NCDs) in Karawang District, West Java Province, 2017

**Authors:** Kapiso, Pian<sup>1</sup>, Adisasmita, A.C.<sup>2</sup>, Santoso, B.S<sup>3</sup>.

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Faculty of Public Health, Indonesia University, <sup>3</sup>Karawang District Health Office.

**Background:** In 2015 about 70% (39.5 million) deaths globally due to NCDs, NCDs in West Java was increasing from 2007 to 2013. The prevalence of stroke was increasing from 9 ‰ to 12 ‰, hypertension (9 ‰ to 11 ‰), Diabetes mellitus (DM) and metabolic syndrome (1.2% to 2%). In Karawang District, Hypertension was increasing from 13.160 cases (2015) to 14.509 cases (2016). Cervical cancer (suspected) was increasing from 94 cases (2016) to 189 cases (2017), DM was increasing 4.384 cases (2016) to 5.216 cases (2017).

**Methods:** This Analysis uses quantitative and qualitative approaches by looking at NCDs reports and program manager interviews. The PAHO method with the Basic Priority Rating (BPR) was applied through interviews with officials and program managers to prioritize. The advantage of this method is the desired result of the priority list based on the numbers and baseline data.

**Results:** The Analysis of the NCDs problem has been identified as follow: The prevalence of hypertension in 2017 increased 51.7%, cervical cancer (suspected) increased 69.76%. DM increased 52.89%, Cardiovascular diseases in 2016 was 44 to 35 per 100,000 population (2017), Breast cancer is 37 to 15 per 100,000 population, Asthma is 74 to 63 per 100,000 population. Based on the PAHO, the following results are obtained ; Hypertension, Cervical cancer (suspected) and DM.

**Conclusions:** Hypertension, cervical cancer (suspected) and DM are the main problems. This is due to the lack of promotion on Prevention and Controlling-NCDs, it's advisable to have regular and sustained health promotion risk factors, improving the capacity of officers through training and the importance of integrating with other health programs.

Keywords: Problem Analysis, NCDs, District Karawang.

### 4. Situational Analysis of Non Communicable Diseases in Cimahi City 2017

**Authors:** Debri.R.Faisal<sup>1</sup>, Syahrizal<sup>2</sup>, Rusli<sup>3</sup>

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Faculty of Public Health, Universitas Indonesia;

<sup>3</sup>Cimahi City Health Office

**Background:** The problem of Non Communicable Diseases (NCD) increased throughout the years in Cimahi City. Based on data cause of death in Hospital 2013 where Stroke (129 cases), Intracerebral Haemorrhage (75 cases), Diabetes Mellitus (27 cases), Chronic Kidney Diseases (27 cases), Cerebral Infarction (24 cases) and Heart Diseases (15 Cases). Based on data outpatient visits at Public Health Center in 2016, Ischemic Heart Disease (2,772), Diabetes mellitus (1.766), Hypertension (12.349) and Ischemic Heart Disease (2,772). This study aim to determine priority problem of NCD in Cimahi City.

**Methods:** This Situation Analysis was conducted in December 2017-March 2018 at Cimahi City, used secondary data of Visit Report Public Health Center 2013-2017 and surveillance data of Integrated Health Post for NCD (Posbindu PTM) with descriptive analysis. Priority problem was determined by interview stakeholders of Health Office using PAHO adapted Hanlon method with component criteria of Magnitude (A); Seriousness (B): Urgency (B1), Severity (B2), Economic Loss (B3), Negative Impact (B4); Effectiveness (C); Inequity (E) and Institutional Factors (F).

**Results:** Identification of NCD problem where increased visit of Hypertension in 2013 (10,388) to 2017 (13,776) with proportion 37.9%, Diabetes Mellitus in 2015 (211) to 2017 (1,076) with proportion 0.43%. The proportion of Obesity 66.4%, Cancer in 2013 (41) to 2017 (153) where proportion of positive IVA was 2.3% and the proportion of positive CBE was 0.02%. The calculating of scoring PAHO were Hipertension (57.66), Diabetes Mellitus (49.53), Obesitas (37.41) and Cancer (30.07).

**Conclusions:** The priority problem of NCD in Cimahi City was Hypertension. Health Office should be optimizing program of Posbindu PTM to check up continually of hypertension as effort to reduce morbidity and mortality caused by NCD.

Keywords: NCD, Situation Analysis, Hypertension, Cimahi City.

## **Oral Presentation 13, 14 and 15**

Friday, May 4, 2018/15.00-16.00

|  |  |
|--|--|
| <b>Session 13: Malioboro 4</b><br><b>Food and Water Borne Diseases 3</b><br>Moderator: Putu Suariyani, S.KM, MHLth & Int Dev                           |  |
| 1.   | Julianti Jeanette Sabono<br>"Outbreak Investigation: Food Poisoning Originating From Catering X at Sleman District 2018"                           |
| 2.   | Efi Sriwahyuni<br>"Outbreak Investigation of Food Poisoning in X District 2018"  |
| 3.   | Budi Santoso<br>"Early Detection of Typhoid Carriers at Food Handlers in Primary Schools in East Java and Bali in 2017"                            |
| <b>Session 14: Malioboro 5</b><br><b>Program Evaluation, HIV -STI, and Chronic Disease</b><br>Moderator: Indra Dwinata, S.KM, MPH                      |  |
| 1.   | Ade Nurlina<br>"Performance Evaluation of Acute Flaccid Paralysis Surveillance Post Polio Outbreak in Cirebon District, Indonesia 2006 – 2016"     |
| 2.   | Devi Safitri<br>"Evaluation of Outreach Program Among Female Sex Workers in Denpasar, 2017"  |
| 3.   | Atik Ruli Winarti<br>"The Situation Analysis of Mental Health Illness in City Administration of South Jakarta Year 2017"                           |
| 4.   | Febriyanti<br>"An Overview of the Epidemiology of HIV/AIDS in Blitar District Years 2016-2017"   |
| <b>Session 15: Malioboro 6</b><br><b>Maternal, Child and Reproductive Health, Zoonotic and Other</b><br>Moderator: Made Pasek Kardiwinata, S.KM, M.Kes |  |
| 1.   | Ni Putu Ayu Wulan Noviyanti<br>"The correlation of Malnutrition in toddler and the Occurrence of Hypertension in Adult Patients in Badung Regency" |
| 2.   | Ni Wayan Desy Arisanti<br>"Outbreak Antraks District of Cendrana Reouccer What's the problem?"   |
| 3.   | Asrul Kaimudin<br>"Epidemiological Investigation of Noma in Korowai Tribe, Asmat District, Papua, Indonesia, 2017"                                 |
| 4.   | Rilla Venia Lalu<br>"Assessment of Quality of Measles Surveillance at Public Health Center in Salatiga City, Central Java Province 2017"           |

## Session 13 – Malioboro 4

### Topic: Food and Water Borne Diseases 3

#### 1. Outbreak Investigation: Food Poisoning Originating From Catering X At Sleman District 2018

**Authors:** Julianti J. Sabono<sup>1</sup>, Rido I. A. E. Putra<sup>1</sup>, Riris A. Ahmad<sup>1</sup>, Adi Isworo<sup>2</sup>

<sup>1</sup>FETP FKMK UGM, <sup>2</sup>Politeknik Kesehatan Kemenkes, Semarang

**Background:** Sleman District Health Office received suspected food poisoning report from Minggir PHC with 40 cases in Pesantren AB on Friday, 2<sup>nd</sup> February 2018 at 16.30. Investigation was conducted to verify the outbreak and to identify risk factors of food poisoning.

**Methods:** Retrospective Cohort Study. Active case finding was performed to find new cases. Case was person received rice box from Catering X on 1<sup>st</sup> February, 2018 from 15.30-18.00 and have one of these symptoms: abdominal pain, diarrhea, nausea, vomiting, with or without other symptoms. Identity data were collected through interviews with questionnaire. Biological and food samples were sent to BLK Yogyakarta. Data analysis was performed using chi-square and poisson regression to estimate the relative risk (RR).

**Results:** Outbreak occurred from 1<sup>st</sup> February 2018 at 20.00 to 2<sup>nd</sup> February 2018 at 22.00, with the peak occurred on 2<sup>nd</sup> February 2018 between 05.01-09.00. There were 98 cases out of 160 people that received rice box (AR 61.25%). Case was 66.36% women and 79.71% in age group ≤15 years. Abdominal pain was found in 91.5% case. Rice boxes were sent to three locations, with the distribution of cases were AB (58), QAY (35) and DR's house (5). The results showed that watermelon was associated with food poisoning (aRR=4.046, 95% CI=1.955- 8.370). Food examination result showed cross-contamination. Result from vomit sample was positive for *Bacillus cereus*.

**Conclusions:** There was food poisoning outbreak on 1<sup>st</sup>-2<sup>nd</sup> February, 2018 in Pesantren AB, QAY, DR's house that got food from catering X, caused by watermelon contaminated with *Bacillus cereus*. Lack of hygiene of food processing and poor food storage allowed for bacterial contamination. Guidance and supervision of food by the District Health Office would be improved.

**Keywords:** food poisoning, *Bacillus cereus*, watermelon, hygiene

#### 2. Outbreak Investigation of Food Poisoning in X District 2018

**Authors:** Efi Sriwahyuni<sup>1</sup>, Ika P. Asturiningtyas<sup>1</sup>, Riris A. Ahmad<sup>1</sup>, Adi Isworo<sup>2</sup>

<sup>1</sup>FFETP FKMK UGM; <sup>2</sup> Politeknik Kesehatan Kementerian Kesehatan Semarang

##### **Background**

X District Health Office received a report from Public Health Centre regarding the emerging symptoms of diarrhoea, nausea, vomiting, and fatigue in 26 peoples. The incidence occurred after consuming food at a wedding party held on March 3, 2018. This investigation aimed to ensure the outbreak, identify the source and causes of the outbreak.

**Methods:** The investigation was conducted by active case finding through interviews using questionnaires to people who attended the wedding party. Case-Control Study of 1:2 was conducted to find out the cause of food poisoning. Food samples were delivered to BBTKLPP Yogyakarta for laboratory confirmation. Chi-square test and Logistic regression analysis were used to analyse the data.

**Results:** Based on the investigation, there was found 42 cases; 78.6% women and 40.5% over 40 years old. The symptoms were nausea (76.2%), abdominal pain (69%), dizziness (66.7%), and burning throat (35.7%). The most cases occurred in Village A (61.9%). The average incubation period was 2 hours 45 minutes. The Bangkok cake was suspected as the main cause of the outbreak (aOR 12.08; 95% CI=4,68-31,14). Laboratory result confirmed that Bangkok cake was positively contained *Staphylococcus aureus* and Rhodamine. The other foods (noodles, beef, and Soes) were also contaminated by *Staphylococcus aureus*, *Bacillus cereus*, and borax.

**Conclusions:** The outbreak of Food Poisoning in X District was suspected due to eating Bangkok cake contaminated by *Staphylococcus aureus* and Rhodamine as well as the other foods were contaminated by *Bacillus cereus* and borax. Possible risk of transmission was due to direct-handed food processing over a long period and storing food in the room temperature became potential for microbial growth. Proper training and briefing regarding food hygiene and storage procedures should be done for food handlers. Also, it requires sample test on foodstuff or food additives spread all over the district.

**Keywords:** food poisoning, case control study, *Staphylococcus aureus*, *Bacillus cereus*, Rhodamine, Borax

### 3. Early Detection of Typhoid Carriers at Food Handlers in Primary Schools in East Java and Bali in 2017

**Authors:** Budi. S, Fransisca. S, Sri. R, Suci. H, Didik. M.

Institute of Environmental Health and Diseases Control Surabaya

**Background.** Based on the data of many cases of typhoid fever. They are known high prevalence occurs in school children. one of the risk factors for causes such as contaminated food or drink or transmission from food handlers. This study aimed to identify individual typhoid carriers and personal hygiene through rectal swab and hand swab checks at food handlers at primary schools in east Java and Bali.

**Methods.** samples from rectal swabs and hand swabs at food handlers in primary schools. Examination of salmonella for rectal swab, examination Coliform sp. and *Escherichia coli* for hand swab of food handlers. the examination was done in the laboratory of BBTCLPP Surabaya with the method of culture examination. Selection of spot detection through multi stage random at primary school.

**Results.** Of 643 rectal swab samples and hand swabs of food handlers, from 2 districts, 6 sub-districts at 57 primary schools in east Java and 1 district, 3 sub-districts at 37 elementary schools in Bali. Results of examination of all rectal swab samples identified *Salmonella enterica* and *Salmonella typhi* as many as 5(0.78%) of food handlers positive. Results of examination of all hand swab samples identified Coliform sp. as 339(52.72%) people and E.coli identified 53(8.24%) food handlers in elementary schools.

**Conclusions.** The presence of *Salmonella enterica* and *Salmonella typhi* in the rectal swab as the bacteria that cause typhoid fever in the typhoid carrier of the primary school food handlers. Her low individual hygiene with indicators of the discovery of coliform and E. coli on food handlers.

**Keywords:** Typhoid fever, *Salmonella sp.* *Escherichia coli*, food handle



## Session 14 – Malioboro 5

### Topic: Program Evaluation, HIV -STI, and Chronic Disease

#### 1. Performance Evaluation of Acute Flaccid Paralysis Surveillance Post Polio Outbreak in Cirebon District, Indonesia 2006 – 2016

**Author:** Ade Nurlina<sup>1</sup>, Evi Fahlaeli<sup>2</sup>, Syahrizal<sup>3</sup>

<sup>1</sup>FETP Student Universitas Indonesia, <sup>2</sup>Field Supervisor, <sup>3</sup>Universitas Indonesia

**Background:** Poliomyelitis is one of the infectious diseases that will be eradicated from the world. Acute Flaccid Paralysis (AFP) Surveillance is one of the strategies implemented to detect poliomyelitis. Cirebon is one of the districts that can detect poliomyelitis cases in the community during Polio outbreaks in Indonesia in 2005. This study aims to describe AFP surveillance outcome and evaluate AFP surveillance performance.

**Methods:** A descriptive analysis of secondary data was conducted from the AFP case investigation form (FP1) during 2006-2016. We analyzed sources of case finding and laboratory results. Performance was evaluated according to WHO indicators involving AFP Rate ( $> 2/100,000$  for  $< 15$  years population) and stool adequacy ( $> 80\%$ ).

**Results:** There were 179 AFP cases. 37.4% of cases from community and 62.6% from hospitals. 80% that actively reporting are government hospital. 48(84%) of primary health care have done the procedure of AFP. Laboratory results found 1.1% positive for vaccine derived poliovirus type P1, 1.1% positive type P2 and 5.6% positive Non Polio Enterovirus. AFP rate was not met in 2006-2007, rate was only 1.85/100,000. The highest rate in 2012 is 2.85/100,000. Stool adequacy were below the WHO target in 2007-2008, stool adequacy in 2007 is 76.9% and 2008 only 72.3%. The highest stool adequacy in 2013 and 2015 at 94.4%. AFP surveillance performance began to increase in the period of 2009 since formed a new division handles vaccine preventable diseases surveillance.

**Conclusions:** AFP surveillance performance were not achieved in 2006-2008. AFP surveillance performance began to increase and improve since 2009-2016. The formation of division has had a major impact on improving AFP surveillance performance. We recommended to the district health office to increase community-based surveillance and expand the network to private hospitals.

**Key Words:** Acute Flaccid Paralysis, Cirebon District

#### 2. Evaluation Of Outreach Program Among Female Sex Workers In Denpasar In 2017

**Authors:** D. Safitri<sup>1</sup>, P C D. Yuliatni<sup>2</sup>, I K. Gita<sup>3</sup>

<sup>1</sup>FETP Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; <sup>2</sup>Master Public Health Program Faculty of Medicine Universitas Udayana; <sup>3</sup>Bali Provincial Health Office

**Background:** Outreach program among female sex workers (FSWs) has important role in the prevention and control of HIV/AIDS. This program is conducted by field officer at the PHC and NGOs. Analysis situation was done to find out the obstacles of outreach in Denpasar.

**Methods:** Evaluation of input, process, and output is done by interviewing 1 HIV program officer at Denpasar District Health Office (DHO), 2 HIV program officer at the PHC and 1 field worker. Data collection was done using a questionnaire. Secondary data was analysed from the program report of Denpasar DHO. Data was analysed by comparing the findings with the standard or target from the Denpasar DHO.

**Results:** Evaluation of input showed that facility and infrastructure have been sufficient. There were difficulties to outreach and refer FSW for sexually transmitted infection (STI) examination. This is particularly due to less welcome behavior of Pimps/Wisma owners to the health officers. Even though there has been program of structural intervention through the development of work-force where the Pimps/Wisma owners are become part of the work-force, the effort to motivate the FSWs for early detection of STI was still lack.

**Conclusions:** There is a need to strengthen the coordination within the Pimp/Wisma owner in term of outreach to ease for case referring and health promotion.

**Keyword:** Outreach, Female Sex Worker, Denpasar

### 3. The Situation Analysis of Mental Health Illness in City Administration of South Jakarta Year 2017

**Authors:** A. Ruli Winarti<sup>1</sup>, R. Djuwita<sup>2</sup>

<sup>1</sup>FETP Student Universitas Airlangga; <sup>2</sup>Faculty of Public Health, Universitas Indonesia

**Background:** based on data from Riskesdas in 2013, the prevalence of ODGJ in DKI Jakarta is 1.1/1000 and the prevalence of ODMK is 5.7/1000. ODGJ patients in DKI Jakarta Province who were found, recorded and handled during 2017 were 4.690 cases (41% of Riskesdas estimates in 2013). This situation analysis aims to know the prevalence and distribution of mental health illness by people, place and time, and to determine the priority of mental health problem in City of Administration South Jakarta 2017.

**Methods:** the priority of the problem was determined through a deep interview from 7 people which 5 people in the mental health program at 5 sub-district health centers in City of Administration South Jakarta, 1 person in the mental health programme in South Jakarta Sub-Department and 1 person in mental programme at Health office of Province DKI Jakarta by using Paho method adapted Hanlon.

**Results:** the highest proportion of mental illness visits in Cilandak districts is 32%, the lowest in Setiabudi districts is 0.6%. The highest prevalence of schizophrenia rate 11.4/10.000 in Kebayoran Baru districts, and the lowest 4.2/10.000 in Kebayoran Lama districts. The highest gender of schizophrenia is 63% male, 37% female, the age group patients are 50% around 35-39 and 50% around 40-44, and the initial year suffering schizophrenia is 50% in 2016 and 50% in 2017.

**Conclusions:** therefore, by using the scoring table from eleven mental illness are obtained the three highest priorities, those are (38.6) schizophrenia and other chronic psychotic disorders, (4.48) neurotic disorders and (4) depressive disorder.

**Keywords:** The situation analysis, mental health illness, schizophrenia, Jakarta

### 4. An Overview of The Epidemiology Of HIV/AIDS In Blitar District Years 2016-2017

**Authors:** Febriyanti<sup>1</sup>, A. Nugroho<sup>2</sup>, A. C Hidajah<sup>3</sup>

<sup>1</sup>FETP Student Universitas Airlangga; <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Universitas Airlangga,

**Background:** HIV/AIDS is a disease that is chronic and acute. The number of HIV cases in East Java in 2017 was 2,125 while AIDS was 391. In 2017 in Blitar District, HIVcases were reported as 62 cases and AIDS were 58 cases. The purpose of this research is to describe the epidemiology of HIV/AIDS in Blitar District 2016-2017.

**Methods:** this research is descriptive research conducted at the District Health Office of Blitar. Data to be used are the number of cases of HIV / AIDS, sex, age group, type of work and HIV-positive people getting ARVs sourced from the report on HIV / AIDS Surveillance 2016-2017

**Results:** The number of cases of HIV/AIDS in 2016 as many as 160 cases and 2017 as many as 120 cases. There are 118 cases of HIV in 2016 and 2017 cases in 2017, whereas most cases of AIDS cases in 2017 were 58 cases compared to 2016 in 58 cases. The percentage of people living with HIV (ARV) in 2016 (33.75%) and 2017 (50%). In 2016 and 2017 the spread of HIV / AIDS cases by sex is higher in males than in females. In the year 2016 most age group is age group 25-34 years (28,75%) and 2017 age group is 35-44 years old (36,6%). By 2017, the largest proportion of HIV / AIDS cases were in housewives (28%), entrepreneurs (19%), unskilled labor (15%), employees (10%), PSK (9%) and other jobs (5%). The largest employment group that experienced the greatest increase compared to 2016 was housewife (19%).

**Conclusions:** an increase in the number of cases of AIDS in 2017, the proportion of HIV / AIDS cases occur in the productive age group. The proportion in men is largest than women. The types of group that experienced the biggest increase was housewife and not all PLWHA get ARV.

**Keyword:** HIV, AIDS, productive, proportion, Blitar

## Session 15 – Malioboro 6

### Topic: Maternal, Child and Reproductive Health, Zoonotic and Other

#### 1. The Correlation of Malnutrition in Toddler and The Occurrence of Hypertension in Adult Patients in Badung Regency

**Authors:** N. P. A. W. Noviyanti<sup>1</sup>, A. A. S. Sawitri<sup>2</sup>, I G. A. A. Naya<sup>3</sup>

<sup>1</sup>FETP Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; <sup>2</sup>Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; <sup>3</sup>Badung District Health Office

**Background:** Nutritional problems in toddlers is associated with the onset of non-communicable diseases. The incident of undernutrition and overnutrition in toddler in Bali province increased 5 times from 2013-2014. Hypertension in Bali Province also increased from 6.0% (2007) to 8.7% (2013). This analysis aims to determine the correlation of malnutrition in toddlers with the occurrence of hypertension in adult patients in Badung regency.

**Methods:** Ecological analysis used secondary data from nutrition status monitoring report (PSG) with indicator of weight/age, height/age, and weight/height and the meat consumption, to the hypertension occurrence from annual report of public health center at Badung Regency Health Office 2014-2016. Data were analyzed by univariate and bivariate analysis used partial correlations that correlated hypertension with malnutrition and controlled by districts and meat consumption.

**Results:** There were nutritional problems found during three years including high prevalence of stunting (9.54%), obese (8.80%), underweight (3.29%) and wasting (2.67%). Prevalence of hypertension at age more than 15 years old for three consecutive years was 0.14% (2014), 0.22% (2015), and 0.18% (2016). Prevalence of severe underweight and underweight children ( $r = 0.525$ ,  $p = 0.037$ ), severe stunting and stunting ( $r = 0.644$ ;  $p = 0.007$ ), partially correlated with the prevalence of hypertension. Whereas severe wasting and wasting ( $r = 0.127$ ;  $p = 0.638$ ) was not correlated to the occurrence of hypertension.

**Conclusions:** The prevalence of undernutrition in toddlers is correlated to the occurrence of hypertension in adults. Further research with larger areas and number of samples or with individual approaches is needed to confirm the findings.

**Keywords:** Ecological Analysis, Hypertension, Malnutrition, Nutritional Status

#### 2. The Outbreak Of Anthrax Reoccurred in Cendrana Subdistrict. What Is The Problem?

**Authors:** Ni Wayan Deisy Arisanti<sup>1</sup>, Debsy Pattilima<sup>2</sup>, Ansariadi<sup>1</sup>, Muammar<sup>1</sup>, A. Jusmawati<sup>1</sup>, Indra Dwinata<sup>1</sup>

<sup>1</sup>FETP Universitas Hasanuddin; <sup>2</sup> South Sulawesi Province Health Office

**Background :** On February 1<sup>st</sup>, 2018, Cendrana Health Center reported anthrax suspect on human. According to the health center report, a similar cases occurred in 2014 and a total of twenty nine cases have been reported since 2014. The purpose of this research to confirm the outbreak, identify source and method of transmission.

**Methods :** This descriptive cross-sectional study was conducted in February 2018. A standard anthrax investigation form from Ministry of Health has been used to investigate cases. Soil examination was conducted to identify the present of B anthrax in the soil. Ulcer swab was also obtained for further lab examination, both lab test were performed at Veterinary Lab Maros. Anthrax on human case was define as those people who have suspected of having anthrax symptoms like fever, , report From surveillance officers and staf at Cendrana Health Center, health office in Maros district, animal sector and Veterinary Center of Maros district .

**Results :** A total of six people diagnosed with skin anthrax symptom fever (100%), flushing fluid swelling (100%), necrotic tissue (100%), black crust (81.3%), swelling of the skin (81.3%). Those six cases have been previously contacted with a slaughtered horses suspected of anthrax. Laboratory result found *Bacillus anthracis* bacteria in the soil where the horse was slaughtered. Swab ulcer was conducted among those six cases. However, the result of the ulcers examination from the lab has not been released.

**Conclusions :** There was an outbreak of anthrax in the Labuaja village, in Cendrana district in February 2018. Soil in that location is infected with anthrax bacteria. Livestock vaccination has been conducted. Antiseptic has been sprayed in the slaughtered location, and it has been closed. Health education to people in the area to immediately report the sick animals and do not either contact or consume animal suspected anthrax.

**Keywords:** *anthrax, investigation, outbreak prevention, Maros*

### 3. Epidemiological Investigation of Noma in Korowai Tribe, Asmat District, Papua 2017

**Authors:** Asrul Kaimudin<sup>1</sup>, A. C. Hidajah<sup>2</sup>

<sup>1</sup>FETP Student Universitas Airlangga; <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Universitas Airlangga

**Background:** In October 2017, Indonesia MoH received a suspected Noma case from Indonesian Child Protection Committee and Public Health Emergency Operations Center in Korowai tribe, Papua. Epidemiological investigation was conducted to assist Provincial and District Health Offices to find additional cases and identify Noma risk factors.

**Methods:** This was a descriptive study by analyzing primary data from interviews and secondary data from Asmat DHO and Yaniruma Health Center. Data was collected on 22-28 October 2017. Interviews were performed with family or close relatives of the patient. We also measured children's nutritional and oral health status in Korowai tribal community.

**Results:** No additional case of Noma found in Korowai tribal community. Korowai tribal community was far to health services and had no communication tools. Nutritional status examination showed 21,7% of 46 children had poor status. While oral health examination showed 72.9% children never brushed their teeth and 10.4% had experienced toothache. We also found a pregnant woman with Chronic Energy Deficiency and a child suspected with measles.

**Conclusions:** There was only one case of Noma found in Asmat District. There were still Korowai tribes children with poor nutritional status and a measles suspect which was a risk factor for Noma. We recommend placing health workers for ongoing treatment, health education and monitoring surveillance systems, especially for outbreaks potential diseases in Korowai tribal community.

**Keywords:** Epidemiology, Noma, Korowai, Papua

### 4. Assessment of Quality of Measles Surveillance at Public Health Center in Salatiga City, Central Java Province 2017

**Authors:** Rilla Venia Lalu<sup>1</sup>, Citra Indriani<sup>1</sup> and Dyah Woro Widarsih<sup>2</sup>

<sup>1</sup>FETP FKKMK, UGM; <sup>2</sup>Salatiga City Health Office

**Background:** Measles is a highly contagious disease and potentially outbreaks. Salatiga city is one of the areas in Central Java reported during the last 3 years no longer found any cases. In 2016 found 3 cases and increased to 9 cases in 2017. Therefore, an evaluation of the quality of the surveillance system is needed so that the quality of the implementation of measles surveillance at the public health center can proceed accordingly and achieve the objectives.

**Methods:** This research is a descriptive research. The study was conducted in January 2018. The subjects of the study were 6 peoples measles surveillance public health center and 1 health service officer of Salatiga City. Primary data were collected through interviews referring to the quality of surveillance according to WHO 2006 and secondary data from the Salatiga City health office.

**Results:** Simplicity attribute is simple, attribute accuracy of some public health center is on time, attribute sensitivity is sensitive in detecting case but in reporting case still experiencing delay, attribute acceptance there is 1 public health center which source data not only from public health center management information system but also from satellite public health center and private health service, attribute of data stability not yet stable because the data of public health center and the reported number is different.

**Conclusions:** The quality of measles surveillance at public health center Salatiga city in 2017 is poor and needs to be improved. Surveillance officers should be more active in engaging across sectors to participate in the discovery and reporting of measles cases and the need for more frequent and detailed health office feedback.

**Keywords:** attributes surveillance, measles, Salatiga.

# **POSTER PRESENTATIONS**

### ***LIST OF POSTER PRESENTATIONS***

| <b>Code</b> | <b>Name</b>                  | <b>Title</b>  |
|-------------|------------------------------|---|
| P001        | I Nengah Adnyana Surapathi   | Identification of Case Notification Rate (CNR) in the TB Program Using Delbecq Method in Karangasem District 2017 |
| P002        | Rido Illahi Ayef Eka Putra   | Completeness of Measles Surveillance Attribute in Boyolali District Health Office, Central Java, 2017             |
| P003        | Ade Nurlina                  | Evaluation of Dengue Hemorrhagic Fever Surveillance System in Majalengka District, Indonesia 2016                 |
| P004        | Defi Amalia Setia Ningrum    | The Big Three Priority Problems of Non Communicable Diseases in Bogor City, West Java Province 2017               |
| P005        | Masaruddin                   | Outbreak of Diphtheria Disease - Karawang Regency, 2017   |
| P006        | Antonius Adolf Gebang        | Function of Non-Communicable Disease Surveillance at Temanggung District 2017                                     |
| P007        | Andini Rizki Amanda          | Epidemiology of Measles in Kediri Regency, East Java, 2014-2017   |
| P008        | I Kadek Agus Dwija Putra     | Evaluation of Integrated Post For Non Communicable Disease (POSBINDU-PTM) in Bali Province                        |
| P009        | Andarias Paskawanto Kolawi   | Evaluation of HIV/AIDS surveillance system – District of Wonosobo, 2016   |
| P010        | Ahmad zamzam hariro          | Health problems analysis of dengue hemorrhagic fever in pasuruan district health office 2015                      |
| P011        | Ahmad Aswal Liambo           | Public Health Problems at Bogor District, West Java Province, Indonesia, 2015.                                    |
| P012        | Hidayat Nuh Ghazali Djadjuli | Health Problem in Tangerang District, Banten Province   |
| P013        | Retno Henderiawati           | Situation analysis of non communicable diseases in Bogor region 2015-2017   |
| P014        | Suyanti                      | The Situation Analysis of Health Problem in Serang District of Banten Province Year 2013-2017                     |
| P015        | Indreni Waridjo              | Situational Analysis of communicable Diseases in Bogor City Year 2015-2017  |

## 1. Identification of Case Notification Rate (CNR) In The TB Program Using Delbecq Method In Karangasem District 2017

**Authors:** I N. A. Surapathi<sup>1</sup>, P. Suariyani<sup>1</sup>, I K. Subrata<sup>2</sup>, N N. Artini<sup>3</sup>

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<sup>3</sup>Karangasem District Health Office

**Background:** Morbidity and mortality rate of infectious diseases caused by Tuberculosis (TB) is still high in Karangasem regency. However, TB Case Notification Rate (CNR) continues to decline from 2013 (65) to 2016 (53), and less than the target of 57 per 100,000 population. The analysis aims to identify the possible causes of low CNR and determine the choice of solutions.

**Methods:** Problem identification is evaluating by the geographic, demographic, economic and environmental conditions of the population and description of TB program conducted descriptively. Determining the cause of the problem and solution options using Delbecq based on 4 criteria that is big problem, gravity problem, availability of fund and amenity. The data were collected by interviewing two staff members Disease Eradication Department in Health District of Karangasem and 3 PHC and Microscopic Referral Clinic Officers.

**Results:** The evaluation show problems in TB case finding, the coverage of suspect TB screening is low, the involvement of private practitioners in the TB network is low, the health promotion program especially TB disease is not optimal, some of the TB officers have not been trained and the quality monitoring of examination tool is not ever done. From the Delbecq method of weighting, the best solution priority to be implemented is to increase the involvement of private practitioners in TB case finding networks.

**Conclusions:** Increasing the involvement of private practitioners in TB case finding can improve CNR coverage, along with monitoring and evaluation as well as cross-sectoral and cross-program cooperation.

Keywords: Analysis, Tuberculosis, Delbecq

## 2. Completeness of Measles Surveillance Attribute in Boyolali District Health Office Central Java 2017

**Authors:** Rido Illahi Ayef E.P<sup>1</sup>, Dibyo Pramono<sup>1</sup>, Teguh Tri Kuncoro<sup>2</sup>,

<sup>1</sup>FETP FKMK UGM, <sup>2</sup>Boyolali District Health Office

**Background:** The number of measles cases in Boyolali District increased since 2013. This illustrates that measles will remain potential case for being outbreak if measles surveillance system do not works well. an evaluation of measles surveillance system needed to know about the completeness and timeliness of measles surveillance and identifying what caused the problem. This research aims at describing the attribute completeness in the implementation of measles surveillance system.

**Methods:** A descriptive observational study was conducted by interviewing xx surveillance officers in district health office and 26 Public Health Centers (PHC) in Boyolali district. We used questionnaires that refers to "WHO Recommended Standard Measles and Guide To Monitoring And Evaluating Communicable Disease Surveillance And Response Systems". Data analyzed using table and graph.

**Results:** It is found that all surveillance officers had not received measles surveillance training program, 84.6% of PHCs in Boyolali District do not report measles surveillance routinely (C1) that 22% of which were new officers with less than 1 year working period. Regarding the attribute completeness, the study found that there are 8 PHCs (36.4%) don not have C1 form, more than a half (29.1%) PHCs have not had technical guidance for measles surveillance. Also, there are 40.9% of PHCs who did not do the reporting got followed up by Boyolali district health surveillance officer.

**Conclusions:** The result of evaluation for measles surveillance system in Boyolali District shows that its implementation has not fulfilled the requirement from Minister of Health Decree Kepmenkes no 1116 / SK / VII / 2003 and Measles Surveillance Guidance Book. It requires capacity building and training for all surveillance officer as well as supporting facilities such as guidance book, measles surveillance forms. It is also needed to strengthen surveillance networking through sustainable monthly feedbacks and follow up from district health office.

Keywords: measles surveillance, evaluation, completeness

### 3. Evaluation of Dengue Hemorrhagic Fever Surveillance System in Majalengka District, Indonesia 2016.

**Authors:** Ade Nurlina<sup>1</sup>, Evi Fahlaeli<sup>2</sup>, Syahrizal<sup>3</sup>

<sup>1</sup>FETP Student Universitas Indonesia, <sup>2</sup>Field Supervisor, <sup>3</sup>Universitas Indonesia

**Background:** Dengue Hemorrhagic Fever (DHF) is one of the most common health problems and endemic in almost all districts in Indonesia. In Majalengka, incidence of DHF increased 25.9% in 2015 to 27.7% in 2016. Case fatality also increased 0.6% in 2015 to 1.2% in 2016. 62.5% were endemic sub-districts and 34.3% others became sporadic. This study aims to evaluate the DHF surveillance system and provide recommendations for future improvements.

**Methods:** This was a descriptive study. Interviews were conducted using structured questionnaires to 17 DHF officer (one district health office, 15 primary health center, one hospital). Observations were made using the check list on the DHF report document. Assessment used WHO guidance including structure, main function, support function, and quality of surveillance system.

**Results:** The DHF surveillance system has been supported by DHF officer at all levels but none (0%) of them have attended the training. Guidelines of DHF control is not yet available at all levels. No reporting either weekly or monthly so that the completeness and accuracy of the report can not be assessed. The level of representation is still low (6.32%) because has not involved 214 private health facilities. The low level of support from the local government due to the absence of legislation and DHF working groups.

**Conclusions:** The implementation of the DHF surveillance system has not gone well. Found weaknesses in every component and needs to be improved. Recommended for to do a training, provide of DHF guidelines, and expanding the network through socialization to private health facilities. The district health office is expected to initiate the establishment of local regulations and working groups at the district and sub-district levels for the control of DHF.

**Keywords:** Dengue, Surveillance, Evaluation

### 4. The Big Three Priority Problems of Non Communicable Diseases in Bogor City, West Java Province 2017

**Authors:** Defi Amalia Setia Ningrum<sup>1</sup>, Krisnawati Bantas<sup>2</sup>, Bai Kusnadi<sup>3</sup>

<sup>1,2</sup>FETP Universitas Indonesia; <sup>3</sup>Bogor Health Office, West Java, Indonesia

**Background:** Due to rapid epidemiological transitions, NCDs have become major public health problems. Priority setting of NCDs is needed when an organization are face multiple problems of NCD with limited resources. This study aims to set priority problems of NCD in Bogor city.

**Methods:** Bogor Health Office data of morbidity, mortality, and determinants of NCDs, between 2014 and 2017 were used to determine the priority problems of NCD in Bogor city. The newest methodology of priority setting, PAHO adapted Hanlon method was used to assess the big three priority problems of NCDs. The components of PAHO adopted Hanlon methodology were judged by magnitude of the problems, seriousness of the problems, effectiveness of intervention, inequity, and positioning factor. The range score of basic priority rating was 0-100 point. Seven stakeholder of Bogor Health Office contributed to assess PAHO adapted Hanlon questioner.

**Results:** Fifteen NCDs assessed by PAHO adapted Hanlon questioner. The result of basic priority rating is in a scale of 7.43 to 31.77. Hypertension had the greatest score with 31.77 point. The 2<sup>nd</sup> and 3<sup>rd</sup> place were Coronary Heart Diseases (24.65 point) and Cervical Cancer (22.25 point).

**Conclusions:** This finding recommends the government to focus on creating disease control programs and resource allocation for hypertension, CHD, and cervical cancer as the big three NCD priority diseases in Bogor city.

**Keyword:** Bogor city, non communicable disease, priority setting, PAHO adapted Hanlon method.



## 5. Outbreak of Diphtheria Disease - Karawang Regency, 2017

**Authors:** Masaruddin<sup>1</sup>, Asri C. Adisasmita<sup>2</sup>, Saleh Budi Santosa<sup>3</sup>.

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Departement of Epidemiology, Universitas Indonesia, <sup>3</sup>Field Supervisor

**Background:** More than 1.4 million children worldwide die each year due to various diseases that can be prevented by immunization. Some contagious diseases such as tuberculosis, Diphtheria, Tetanus, Hepatitis B, Pertussis, Measles, Polio, inflammation of the lining of the brain, and pneumonia. Children who have been immunized will be spared from various dangerous diseases.

**Methods:** The method used in this study is Case Control Study where the sick as many as 25 people and control as many as 50 people.

**Results:** Young people (0-19 years old) had a nearly 2-fold greater risk of developing diphtheria than people aged more than 20 years, OR = 1.9259; 95% CI; 0.7270 5.1020; p value=0.1873. Male sex has a risk of nearly 3 times greater for diphtheria compared with female sex OR = 2.6975; 95% CI; 0.9223 7.8896; p value = 0.0704. People who have immunization status  $\geq 4$  times have a risk of 1 times compared with people who have immunization status  $<4$  times, OR = 1,1389; 95% CI; 0.3373 3,8458; p value = 0.8319. People who have a trip history outside of the area have a risk of 0.2898 compared with people who have no travel history outside OR = 0.2898; 95% CI; 0.0755 1.1119; p value = 0.071. People who have a history of close contact or residence with a patient have a risk of 0.0602 compared with people who do not have a history of close contact or stay home with the patient, OR = 0.0602; 95% CI; 0.0172 0.2101; p value = 0,0000.

**Conclusion:** There has been Outbreak of Diphtheria Disease in Karawang Regency Year 2017

**Keywords:** Difteri, Case Control Study, Karawang Regency

## 6. Function of Non-Communicable Disease Surveillance in Temanggung District 2017

**Authors:** Antonius Adolf Gebang<sup>1</sup>, Khabib Mualim<sup>2</sup>, Dibyo Pramono<sup>3</sup>

<sup>1,3</sup>FETP FKKMK, UGM; <sup>2</sup>Temanggung District Health Office

**Background:** Non-Communicable Diseases (NCDs) is the leading cause of death of 36 million (63%) of all deaths worldwide, of which approximately 29 million (80%) occur in developing countries. Based on the report of Temanggung District Health Office either through integrated surveillance report or NCDs program report reported number of cases NCDs year 2013 until 2016 is 186.444 cases, where the highest case is hypertension and diabetes mellitus. This study aimed to determine the function of NCDs surveillance system in Temanggung District.

**Methods:** This study was a descriptive observational research, conducted in December 2017 - January 2018. Data were collected from NCDs program managers, 1 from District Health Office and 25 from Public Health Centre (PHCs) using interview and observation on the subject of evaluation. The analysis was done descriptively.

**Results:** Implementation of NCDs surveillance in Temanggung District did not yet have NCDs private clinic network. Most of NCDs cases data were collected only from Hospital, PHCs and "Posbindu". NCDs surveillance was carried out by PHCs, from data collection through the General Medical Center and "Posbindu". Once collected, data were inputted and immediately sent to district health office without doing data processing, analysis and interpretation. PHCs only collected data, while data processing and analysis was done by the District Health Office NCDs program manager. The reported case data were new cases and old cases. The processed data then disseminated to the PHC surveillance officer.

**Conclusions:** The implementation of NCDs surveillance through the private sector had not done well. NCDs Surveillance in Temanggung District did not yet have NCDs network of private clinics. NCDs surveillance in PHCs only collected data and had not done data processing, analysis and interpretation.

**Keywords:** surveillance, function, NCDs

## 7. Epidemiology of Measles in Kediri Regency, East Java, 2014-2017

**Authors:** Andini R. Amanda<sup>1</sup>, C. U. Wahyuni<sup>2</sup>, B. W. Kartika<sup>3</sup>, Istianah<sup>4</sup>

<sup>1</sup>FETP Student Universitas Airlangga; <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Universitas Airlangga;

<sup>3</sup>East Java Province Health Office; <sup>4</sup>Kediri District Health Office

**Introduction:** Measles is a highly contagious infectious disease, caused by *morbilli* virus. In 2016 Kediri Regency entrance in 10 districts with the highest measles cases in East Java province. During the period 2014-2017 found 308 confirmed cases. This research aims to describe the epidemiology of Measles in Kediri Regency from 2014-2017 based on people, places and time.

**Methods:** this research is descriptive research conducted in District Health Office of Kediri. The data sources are health surveillance reports and profiles in the period 2014-2017. The data of the case will be described on the basis of gender and age. The distribution of cases by status and immunization Clinics are only done to data of 2017.

**Results:** Over all, it can be said that in the period 2014-2017 cases of measles continues to show improvement. Significantly increase occurred in 2017, which amounted 165 cases. Increased almost twice compared to 2016 (49 cases). The pattern of distribution of cases according to gender shows that sufferers are male (52.27%) more than female (47.72%), but every year there is a difference in proportions according to gender. The distribution of cases by age shows that the largest proportion is in the age group 1-5 years (35.71%). The proportion of cases that received complete immunization of 44.24%, while the unimmunized by 40% and the unknown immunization status of 15.75%. Most cases occurred in 2017 at public health center of Pare region (16.96%).

**Conclusions:** in the period 2014-2017 cases of measles tend to increase. Male is more at risk to be exposed for measles. 1-5 year age group at risk for contracting measles. Most measles cases were reported from Clinics Pare.

**Keywords:** measles, epidemiology, Kediri Regency

## 8. Evaluation of Integrated Post For Non Communicable Disease (Posbindu-PTM) in Bali Province

**Authors:** K. A. D. Putra<sup>1</sup>, P. C. D. Yuliyatni<sup>2</sup>, P. D. Adi<sup>3</sup>

<sup>1</sup>FETP Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; <sup>2</sup>Post Graduate Study Program of Public Health, Universitas Udayana; <sup>3</sup>Bali Province Health Office

**Background:** In term of non communicable disease (NCD) control, Government has set up the integrated post for NCD (Posbindu-PTM) which conduct monitoring and early detection of NCD risk factors in the community. The Posbindu-PTM has been running since year 2012 in Bali, and has not yet being evaluated.

**Methods:** Data collection was done through interviews using questionnaire and secondary data analysis, based on input-process-output aspects. Informants involved were the Posbindu-PTM officers including 1 PHO officer, 1 Gianyar DHO officer, and Sukawati PHC officer. Data were analysed through comparing the findings with the standard technical procedure for Posbindu-PTM developed by Ministry of Health.

**Results:** Several findings in input included less number of human resource in every level or surveillance point, four among nine districts in Bali had less coverage for number of Posbindu per village, and National funding (APBN) was limited in the district level. In addition, there were less facilities and miss-match target population. In process, the planning process had involved several stake holders, however PHO officer did not provide technical assistance and training to the PHCs officers and Cadres in the actuating process. In term of output, from year 2016-2017 there has been increasing of quantity of the basic Posbindu from 466 to 509 posts.

**Conclusions:** Less of input lead to less optimal activity of the Posbindu. Bali PHO and districts were recommended to allocate funding for Posbindu-PTM program to refining the input and process component.

**Key Words:** Evaluation, Program, Integrated post, Non Communicable Disease, Posbindu

## 9. Evaluation of HIV/AIDS Surveillance System – District of Wonosobo, 2016

**Authors:** Andarias P. Kolawi, Misinem, T. Wibowo

<sup>1</sup>FETP FKKMK, UGM; <sup>2</sup>Wonosobo District Health Office; <sup>3</sup>Yogyakarta Provincial Health Office

**Background:** HIV/AIDS cases in District of Wonosobo tended to increase annually. The number of cases were 349. This evaluation was to describe the structure, main function, support function, and quality of surveillance system, and to make recommendation for system improving.

**Methods:** The population target of this evaluation was all HIV/AIDS health care namely 2 hospitals and 6 local health center. Data was collected by interview using a questionnaire guided by The *Guide to monitoring and evaluating* from World Health Organization (WHO).

**Results:** Evaluation of the surveillance structure showed that 100% health care providers had the surveillance legislation and had a relation to one or more stakeholders and another HIV/AIDS health care providers, 87.5% had surveillance strategy. Evaluation of the main surveillance function showed 100% conducted the activity of detection, registration, confirmation, and reporting of case, 87.5% did the activity of analysis and interpretation. The weakness here were The health care provider had no guidance document (12.5%) and cost allocation (100%) specially for HIV/AIDS outbreak. Evaluation of support function showed 100% had the standard of care, trained staffs, communication facilities, money activities, and no reagen shortage. The weakness was 25% didn't make training. Evaluation of surveillance quality showed that 100% were complete, acceptable, sensitive, and spesifik. The weakness were 87.5% no timeliness and 100% no simple in mobile VCT.

**Conclusions:** Evaluation showed that every component in surveillance system had it's shortage. It needs efforts to improve the system. Increase the timeliness of reporting was recommended to improve the quality of surveillance system.

Keywords: surveillance, HIV/AIDS, evaluation, wonosobo

## 10. Health Problem Analysis of Dengue Hemorrhagic Fever in Pasuruan District Health Office 2015

**Authors:** Ahmad Zamzam Hariro<sup>1</sup>, Chatarina Umbul Wahyuni<sup>2</sup>, Supa'at Setia Hadi<sup>3</sup>,

<sup>1</sup>FETP Student Universitas Airlangga; <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Universitas Airlangga;

<sup>3</sup>Sidoarjo District Health Office,

**Background:** Dengue fever is one of the health problems in Pasuruan district in 2015. Incidence rate in 2015 is 42.8 per 100,000 population. This increased by 3.7 times from the previous year. Therefore, it is necessary to identify the cause of the increasing incidence rate of DBD in Pasuruan District. The objective of this study was to analyze the problem of increasing the incidence rate of DHF in Pasuruan district.

**Methods:** This study was conducted in Pasuruan district health office. Respondents in this study were 7 respondents. Interviews were conducted on respondents to obtain information of increased the DHF incidence rate. Problem priority used USG (urgency, seriousness, growth) techniques.

**Result:** Health problem priority of increasing DHF incidence rate is lack of public awareness to doing self prevention.

**Conclusion:** Forming jumantik plus cadre, larva examination 1 head of family checking the 1 neighbor's house, conducting counseling at religious ceremony, making hamlet head as role model, and sticking sticker-shaped leaflet in window of resident's house.

Keywords: DHF, Problems, Priority

## 11. Public Health Problems at Bogor District, West Java Province, Indonesia, 2015

**Authors:** Ahmad A. Liambo<sup>1</sup>, S. Ronoatmodjo<sup>2</sup>

<sup>1</sup>FETP Student Universitas Indonesia, <sup>2</sup>Universitas Indonesia

**Background:** Priority public health problems based on an inclusive evidence-based process is necessary in planning of public health intervention program. Situational analysis of health is an important process as the first step of planning. This study aimed to identifying the public health problems based on nutritional status of children, mortality, morbidity and determine the priority of health problems in Bogor district.

**Methods:** The nutritional status of children, mortality and morbidity reported data in 2015 were observed and comparing with target indicators of MDGs and national (Ministry of Health RI). Determination of problem priority used Hanlon method by which 15 respondents were interviewed (4 head of division and 11 staffs) to gain scores for a health problem that has already been identified.

**Results:** Nutritional status of children has reached the MDGs target, which prevalence of low nutrition was 5.05% and deficient nutrition was 0.68%. Maternal mortality rate (MMR) was 55.41 per 100.000 live birth and infant mortality rate (IMR) was 6.76 per 1000 live birth which both of them has reached the national target and global target (MDGs). Nine diseases were discovered as a cause of morbidity referring to typhoid/paratyphoid fever, diarrhea/gastroenteritis, dengue hemorrhagic fever (DHF), bronchopneumonia, pulmonary tuberculosis, dyspepsia, hypertension, acute respiratory tract infections, and diabetes mellitus. According to these diseases, pulmonary tuberculosis occupied the main priority in health problem which gained score 16.690.

**Conclusions:** There was no problem found regarding nutritional status of children and mortality. Nine diseases were discovered in which pulmonary tuberculosis become health priority. Bogor district health office (DHO) needs to take tuberculosis as a primary concern in compiling intervention program.

**Keywords:** Public health problems, Situational analysis, Nutritional status of children, Mortality, Morbidity, Hanlon

## 12. Health Problem In Tangerang District, Banten Province, 2017

**Authors:** Hidayat N.G. Djadjuli <sup>1</sup>, M. K. Sudaryo <sup>2</sup>, D.A.S.Budi <sup>3</sup>

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Public Health Faculty, Universitas Indonesia; <sup>3</sup>Tangerang District Health Office

**Background:** Health problem in Tangerang District is inquite complex. It could be seen by differences between performances and target of each health problem in 2017. Due to limited resources, identification of health problem priority needs to be determined. The aim of this study was to determine health problem and provided recommendation to solve problem.

**Methods:** This is a descriptive study based on local data on mortality, morbidity and indicators of Tangerang District health program in 2017. The PAHO adapted Hanlon Method was used to determine the health problem on five criteria: size of the problem, seriousness of the problem (urgency, severity of consequences, economic loss, negative indirect external effects), effectiveness of interventions, inequity, and positioning factor. Health problem with highest score indicated that the problem was highest priority. The authority of Tangerang Health District were interviewed.

**Results:** PAHO adapted Hanlon method has indicated sixteen health problems in Tangerang District which were preeclamsia and bleeding (26,34), low birth weight and asphyxia (22,90), tuberculosis (22,47), dengue haemorrhagic fever (22,09), malnutrion (22,06), diphtheria (21,09), mental health (17,79), leprosy (16,87), hypertension (16,75), diabetes mellitus (16,72), leptospirosis (15,44), diarrhea (15,09), tetanus (14,78), traffic accident (14,28), pertusis (12,17) and upper respiratory infection (10,73). Preeclamsia and bleeding was considered to be the first health problem with the highest score. Low birth weight and asphyxia was the second.

**Conclusions:** The highest priority of health problems of Tangerang District was preeclamsia and bleeding. It did not achieve the local target of indicator for decreasing maternal mortality. We need to increase the quality of antenatal care and labor in Tangerang District.

**Keywords:** Health Problem, PAHO, Preeclamsia, Bleeding, Tangerang.

### 13. Situation Analysis of Non Communicable Diseases in Bogor District 2015-2017

**Authors:** Retno.H<sup>1</sup>, Nurhayati<sup>2</sup>, Eulis<sup>3</sup>

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<sup>3</sup>Bogor District Health Office

**Background:** Prevalence of Non Communicable Diseases (NCDs) has been increasing in community nowadays and that cause of death worldwide. The main types of NCDs are cardiovascular diseases (like heart attacks and stroke), cancers, diabetes melitus, hypertension and chronic respiratory disease (such as chronic obstructive pulmonary disease and asthma). To aid in describing NCDs condition and prioritizing health problems, we did an analysis of health situation of Bogor District, 2015-2017.

**Methods:** Analysis of this situation used descriptive studies with primary and secondary data. Primary data on the health situation were obtained from in-depth interview of 7 key staffs from chief of subdivision and programmers NCDs of District Health Office. Quantitative data were obtained by reviewing program report and district health profiles. The scoring system in this study used PAHO adapted Hanlon method with component criteria of Magnitude (A), Seriousness (B), Urgency (B1), severity (B2), economic loss (B3), negative impact (B4), Effectiveness (C), Inequity (E), and Institutional Factors (F).

**Results:** The selected respondents in this study were decision-makers who understood the problem of NCDs in Bogor District. Top three NCDs problems were scored as follows: Diabetes Melitus with proportion 1,35% (score 43), Stroke with proportion 2,01% (score 40), Hypertension with proportion 5,17 % (score 38).

**Conclusions:** Diabetes Melitus is a major NCDs problem in District Bogor. PAHO adapted Hanlon score is a useful tool for NCDs situation analysis. District health management can use the results of this prioritization exercise in planning health programs.

**Keywords:** Situation analysis, NCDs, health priority

### 14. The Situational Analysis of Health Problems in Serang District of Banten Province in 2013-2017

**Authors:** Suyanti<sup>1</sup>, Tri Yunis Miko Wahyono<sup>2</sup>, Ade Irwan Afandi<sup>3</sup>

<sup>1</sup>FETP Students Universitas Indonesia; <sup>2</sup>Department of Epidemiology, Faculty of Public Health Universitas Indonesia;

<sup>3</sup>Serang District Health Office, Banten Province

**Background:** The health picture in Serang District as of 2016 is Life Expectancy : 67.10 years increase from the previous year 67.8 years. MMR: 206/100.000 LB, national target 306/100.000 LB. IMR: 7/1000 LB, national target 24/1000 LB. Incidence rate of DHF: 37.83 / 100,000 population with CFR: 2.23%. HIV: 55 org, AIDS 39 people with 6 deaths. TB treated: 1.494, CR: 90.67%. Malnutrition: 1.42%. Situational analysis is needed to develop a strategic health plan next year.

**Methods:** Analysis of this situation used quantitative and qualitative approaches. Priority issues were determined through interviews of policy holders using the Paho-adapted hanlon scoring system.

**Results:** Health problem in Serang District covering MMR year 2013-2017 increased by 2015 (221 / 100.000 LB) from target 219 / 100.000 LB gradually decrease in 2017 (193 / 100.000 LB). IMR by 2016 (8.2 / 1000 LB) is up 14% from 2015 (7/1000 LB) target of 8.8 / 1000 LB. Under-five malnutrition in 2017 (0.16%) fell 1.3% from 2016 (1.42%). The incidence of HIV / AIDS in 2017 (0.0059% / 0.0027%) increased, year over year, TB incidence fell by 2017 (93.3%). Outbreak Diphtheria 31 cases in 2017 with CFR 9.68%. Hypertension and DM in 2017 are 0.36% and 0.1% respectively. The scoring result using the Paho-adapted hanlon method establishes the Maternal Health problem as a priority issue.

**Conclusions:** Priority health problems in Serang district were maternal health, under-five malnutrition, and infant health. It is recommended for District Health Office to reinforce others with persuasive approach to local policy holders to socialize of health issues, to form a mindset on the importance of responsive to health problems in the region, facilitate the early detection of health problems in the community.

**Keywords:** situation analysis, health problem, Serang district.

## 15. Situational Analysis of Communicable Diseases in Bogor City Year 2015-2017

**Authors:** Indreni Waridjo<sup>1</sup>, Tri Yunis Miko<sup>2</sup>

<sup>1</sup>FETP Student Universitas Indonesia; <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Universitas Indonesia

**Background:** Communicable diseases still become major public health problem in Indonesia. Bogor city one of 514 districts in Indonesia. This situational analysis at Bogor City should be done in order to identify major public health problem.

**Methods:** the situational analysis health problem of the problem was determined through a deep interview about 37 diseases of communicable diseases according to PERMENKES No. 82 Year 2014. The seven key informant whose are policy makers in Public Health Office of Bogor City by using Scoring system of PAHO method adapted Hanlon score. The components of PAHO method adapted Hanlon methodology were judged by magnitude of the problems (0-10 point), seriousness of the problems include: urgency (5 point), severity (5 point), economic loss (5 point), and negative impact on others (5 point)), effectiveness of intervention (10 point), inequity (5 point), and positioning factor (0,67-1,5 point). The range score of basic priority rating was 0-100 points.

**Results:** using PAHO adapted Hanlon scoring table of 37 communicable disease are obtained the three highest priorities. The highest priority of communicable disease was Human Immunodeficiency Virus/HIV (48,72 point). The 2<sup>nd</sup> and 3<sup>rd</sup> were Tuberculosis (36,74 point) and Difteri (33,36 point).

**Conclusions:** Therefore the Bogor City facing the three diseases at major public health policy. This analysis situation finding recommends the government to focus on creating adequate disease control programs for Human Immunodeficiency Virus, tuberculosis, and difteri.

**Keywords:** The situation analysis, communicable diseases, Human Immunodeficiency Virus, Tuberculosis, Difteri, Bogor City.

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FETP, Universitas Udayana  
FETP, Universitas Airlangga  
FETP, Universitas Hasanuddin  
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Indonesian Field Epidemiologist Association (PAELI)  
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South Asia Field Epidemiology and Technology Network (SAFETYNET)

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| 1  | dr. Muhammad Asri Amin, MPH           | FETP Indonesia Secretariat   |
| 2  | dr. Yuwono Sidharta                   | FETP Indonesia Secretariat   |
| 3  | Dr. dr. Tri Yunis Miko Wahyono, MSc   | FETP Universitas Indonesia   |
| 4  | Putri Bungsu Machmud, S.KM, M.Epid    | FETP Universitas Indonesia   |
| 5  | Dr. Mubasysyir Hasanbasri, MA         | FETP Universitas Gadjah Mada |
| 6  | Bayu Satria Wiratama, S.Ked, MPH      | FETP Universitas Gadjah Mada |
| 7  | Dr. dr. Atik Choirul Hidajah, M.Kes   | FETP Universitas Airlangga   |
| 8  | Dr. dr. Santi Martini, M.Kes          | FETP Universitas Airlangga   |
| 9  | Putu Suariyani, S.KM, MHIth & Int Dev | FETP Universitas Udayana     |
| 10 | dr. Putu Cintya Denny, MPH            | FETP Universitas Udayana     |
| 11 | Ansariadi, S.KM, M.Sc.PH, PhD         | FETP Universitas Hasanuddin  |
| 12 | Indra Dwinata, S.KM, MPH              | FETP Universitas Hasanuddin  |