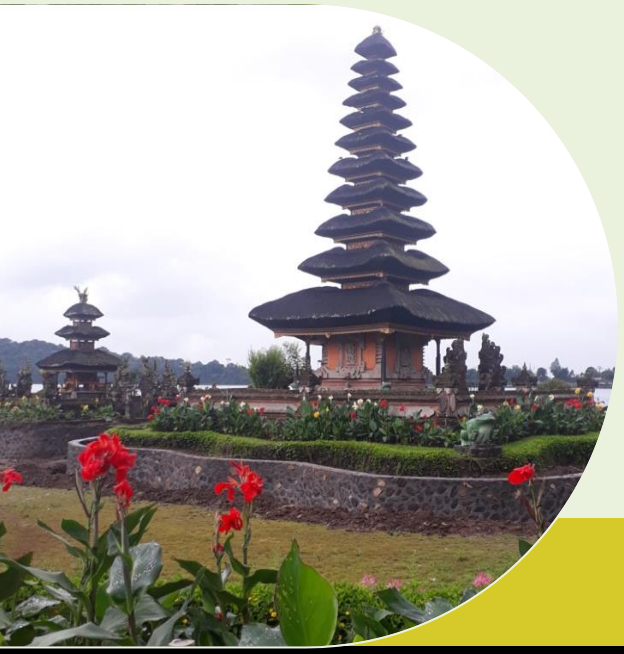
8th NSCE

National Scientific Conference on Epidemiology

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

The Role of Field Epidemiologist on Disaster Risk Reduction



Pre Conference :
19 August 2019

Conference:
20-22 August 2019

The Patra Bali Resort & Villas

Pertemuan Ilmiah Epidemiologi Nasional ke 8

Contents

WELCOME MESSAGE

Dear Conference Participants,

Greeting and welcome to you all at the 8th National Scientific Conference on Epidemiology (NSCE), where the FETP students and alumni share their scientific finding through oral and poster presentations featuring public health research and outbreak investigations. This year, we accepted 63 presentations (48 oral and 15 posters) of 88 abstracts were submitted from five universities (UI, UGM, UNAIR, UNUD, and UNHAS), FETP-Intermediate and FETP-Veterinary Indonesia.

The conference will be held from 20 to 22 August 2019 at The Patra Bali Resort & Villas, which is strategically located in the heart of Bali and will be Indonesia's largest annual event devoted to the science and practice of field epidemiology. Field epidemiologists provide scientific evidence-based information for disease prevention and control strategies, so that this conference can contribute to prevent and control both communicable and non-communicable diseases and other health problems in Indonesia.

This year's theme "**The Role of Field Epidemiologist on Disaster Risk Reduction**". In Lombok, Palu, Banten and Lampung Selatan, FETP students and alumni are actively involved in response on surveillance post disaster and outbreak investigation. The role of epidemiological disasters is not only used to describe the relationship between disasters and health effects, but also provides strategies to prevent health impacts and enhance the provision of post-disaster health care.

We are pleased to have our colleagues from the Ministry of Health, BNPB, B2P2VRP Salatiga, NTB Provincial Health Office, FETP UI, FETP UGM, PAEI, US-CDC, World Health Organization, and DALY Indonesia as speakers in plenary sessions. In breakout sessions, there will be oral presenter (12 session) and poster presenter from FETP students and alumni.

My gratitude to the Organizing Committee from the Sub-directorate of Surveillance and FETP Indonesia Secretariat who are working hard held this conference. I wish you to have a wonderful conference experience, experience the unique Balinese culture, heritage and traditions. Welcome to Bali! Selamat Datang di Bali!

Bali, August 12, 2019

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

PRE CONFERENCE WORKSHOP

Pre Conference: August 19, 2019		
TIME	**PLACE**	**ACTIVITY**
08:00 - 09:00	The Denpasar Ballroom	Registration
08:00 - 09:01		**Introductionary Remarks** dr. I Nyoman Kandun, MPH Coordinator of Indonesia FETP Secretariat
09:15 - 09:45		Moderator : DR. Jontari Hutagalung, S.Kep., MPH
		Rapid Health Assessment during Disaster Alden K Henderson US-CDC
09:45 - 10:15		Discussion
10:15 - 10:45		**Break**
10:45 - 11:15		**Post Disaster Surveillance** drh. Endang Burni Prasetyowati, M.Kes Sub directorate Surveillance, MoH
11:15 - 12:00		Discussion
12:00 - 13:00		**Lunch**
13:00 - 13.30		Moderator : dr. Syswanda, MPH
		Disaster Risk Reduction and Resilience dr. Mondastri Korib Sudaryo, MS, D.Sc FKM Universitas Indonesia
13:30 - 14:00		Discussion
14:00 - 14:15		**Closing**

AGENDA

Conference Day 1: August 20, 2019

TIME	PLACE	ACTIVITY
07:30 - 08:30	The Denpasar Ballroom	Registration
08:30 - 08:40		National Anthem
08:40 - 08:55		**Welcoming Remarks** Head of Bali PHO
08:55 - 09:10		**Committee Report** drg. R. Vensya Sitohang, M.Epid Director of Surveillance and Health Quarantine, MoH
09:10 - 09:30		**Opening Remarks** dr. Anung Sugihantono, M.Kes Director General of Disease Prevention and Control, MoH
09:30 - 09:40		**Opening Prayers**
09:40 - 10:00		**Photo Session**
10:00 - 10:15		**Break**
10:15 - 12:00		**Plenary Session 1 : Disaster Risk Management** Moderator: Dr. dr. Tri Yunis Miko Wahyono, M.Sc
10:15 - 10:35		**FETP on Global Disaster** Juliette Morgan CDC Jakarta Office
10:35 - 10:55		**Coordination of disaster management in Indonesia** dr. Fuadi Darwis, MPH, MARS Unsur Pengarah BNPB
10:55 - 11:15		**The role of the center for health crisis on disaster management** Center for Health Crisis, MoH
11:15 - 11:35		**Early Warning and Response in Indonesia** drg. R. Vensya Sitohang, M.Epid Directorate of Surveillance and Health Quarantine, MoH
11:35 - 12:00		Discussion
12:00 - 13:00		**Lunch**
13:00 - 17:15		**Oral Presentation Session**
13:00 - 14:00	The Denpasar Ballroom	Oral Presentation Session 1 Vaccine Preventable Diseases
	The Gianyar Room	Oral Presentation Session 2 Food and Water Borne Diseases 1
14:00 - 15:00	The Denpasar Ballroom	Oral Presentation Session 3 Food and Water Borne Diseases 2
	The Gianyar Room	Oral Presentation Session 4 Vector Borne Diseases
15:00 - 16:00	The Denpasar Ballroom	Oral Presentation Session 5 Chronic Disease and Health Promotion
	The Gianyar Room	Oral Presentation Session 6 Maternal, Child and Reproductive Health
16:00 - 16:15		**Break**
16:15 - 17:15	The Denpasar Ballroom	Oral Presentation Session 7 Environment and Occupational Health, Respiratory Disease
	The Gianyar Room	Oral Presentation Session 8 Food and Water Borne Diseases 3

Conference Day 2: August 21, 2019

TIME	PLACE	ACTIVITY
08:00 - 10:00	The Denpasar Ballroom	**Plenary Session 2 : Surveillance** Moderator: dr. Muh. Asri, MPH
08:00 - 08:20		**Global Outbreak Alert & Response Network** dr. Arturo Pesigan WHO SEARO
08:20 - 08:40		**The role of FETP on post disaster surveillance in Lombok** Lalu Madahan, SKM, MPH NTB Provincial Health Office
08:40 - 09:00		**STORM of AFP Surveillance in Papua** DR. dr. Hariadi Wibisono, MPH PAEI
09:00 - 09:20		**Disease vector and reservoir distributions in Indonesia** Dr. Ristiyanto, M.Kes B2P2VRP Salatiga
09:20 - 10:00		Discussion
10:00 - 10:15		**Break**
10:15 - 12:00		**Poster Presentation Session**
12:00 - 13:00		**Lunch**
13:00 - 15:00		**Oral Presentation Session (Cont)**
13:00 - 14:00	The Denpasar Ballroom	Oral Presentation Session 9 Zoonotic disease, HIV-STI
	The Gianyar Room	Oral Presentation Session 10 Food and Water Borne Diseases 4
14:00 - 15:00	The Denpasar Ballroom	Oral Presentation Session 11 Food and Water Borne Diseases 5
	The Gianyar Room	Oral Presentation Session 12 Vaccine Preventable Disease and other
15:00 - 15:30		Break
15:30 - 17:00	The Denpasar Ballroom	**Plenary Session 3 : Outbreak Investigation and Survey** Moderator: dr. Riris Andono Ahmad, MPH, Ph.D
15:30 - 15:50		**Interpreting Statistical Significance** Alden K Henderson US-CDC
15:50 - 16:10		**NCD based on the results of Riskesdas 2018** Dr. Drs. Nana Mulyana, M.Kes Badan Litbangkes
16:10 - 16:30		**Current Update on Burden of Disease** dr. Soewarta Kosen, MPH, Dr.PH DALY Indonesia
16:30 - 17:00		Discussion
19.30 - 21.00	The Denpasar Ballroom	FETP Alumni Association (PAELI) Meeting

Conference Day 3: August 22, 2019

TIME	PLACE	ACTIVITY
08:00 - 09:30	The Denpasar Ballroom	**Special Presentation** Moderator: DR. dr. Hariadi Wibisono, MPH
08:00 - 08:20		**Global FETP** Juliette Morgan Organization: CDC Jakarta Office
08:20 - 08:40		**Epidemiology and Monkeypox Detection** EID Sub Directorate, MoH
08:40 - 09:00		**Rabies Outbreak in NTB** Lalu Madahan, SKM, MPH NTB Provincial Health Office
09:00 - 09:20		**Investigation of death and illness of the election workers after 2019 Indonesian general election in Yogyakarta Province** dr. Riris Andono Ahmad, MPH, PhD FETP UGM
09:20 - 10:00		Discussion
10:00 - 10:15		Break
10:15 - 10:45		**Committee Report and Awards** drg. R. Vensya Sitohang, M.Epid Director of Surveillance and Health Quarantine, MoH
10:45 - 11:00		**Closing**
11:00 - 12:00		Administration
12:00 - 13:00		**Lunch**

ORAL PRESENTATIONS

Oral Presentation 1 and 2
Tuesday, August 20, 2019/13.00-14.00

Session 1
Vaccine Preventable Diseases
Moderator: Dr. dr. Atik Choirul Hidajah, M.Kes

Siti Shofiya Novita Sari – FETP UNAIR, Evaluation of Acceptability and Performance Indicators of Diphtheria Surveillance, Kediri Regency, 2018

Kornelius Langga Son – FETP UGM, Barriers and Recommended Interventions in The Implementation of The Case-Based Measles Surveillance (CBMS)

Januar Tree Kencana - FETP UI, The Association between Immunization and Nutritional Status with Diphtheria Outbreaks in Serang Regency, Banten Province 2017-2018.

Efi Sriwahyuni – FETP UGM, Evaluation of Measles Surveillance System in Magelang District 2017

Session 2
Food and Water Borne Diseases 1
Moderator: Indra Dwinata, SKM, MPH

John Silwanus Kaku – FETP UI, An Outbreak Investigation of Food Poisoning in Refugee Camps – North Lombok District, 2018

Andini Rizki Amanda – FETP UNAIR, Epidemiology of Diarrhea Post Earthquake and Liquefaction Disasters in Central Sulawesi

Ika Puspita Asturiningtyas – FETP UGM, An Outbreaks of Bacillus cereus Post Iftar in Three Mosque at Minggir Sub District - Sleman, June 2018

Mego Windyningtyas- FETP UNUD, Outbreak of Food Poisoning At Elementary School No 1 Abiansemal Dauh Yeh Cani Badung District In 2018

Session 1 – The Denpasar Ballroom

Topic: Vaccine Preventable Diseases

1. **Evaluation of Acceptability and Performance Indicators of Diphtheria Surveillance, Kediri Regency, 2018**

Authors: Siti S. N. Sari[1], B. W. Kartika[2], C. U. Wahyuni[4], Istianah[3]
[1]FETP Student Universitas Airlangga; [2]East Java Provincial Health Office;
[3]Department of Epidemiology, Faculty of Public Health, Universitas Airlangga; [4]Kediri District Health Office

Background: Most cases of diphtheria in Indonesia came from East Java (48%) in 2017. Kediri is one of the regencies that had been affected by the outbreak in January 2018 and found 21 cases until May 2018. Diphtheria outbreak occurred in Kediri Regency had prompted the needs for the evaluation of the diphtheria surveillance.
Methods: The present study was conducted on April to May 2018. We performed interviews with the stakeholders of surveillance and immunization section in Health Office of Kediri Regency and public health center surveillance officer, and conducted a retrospective record review of diphtheria report, investigation form, laboratory report from January to May 2018. Also, we adapted the 2001 CDC guidelines on surveillance to assess acceptability and indicators for diphtheria surveillance performance from guidelines for prevention and control of diphtheria from the Indonesian Ministry of Health 2017. The indicators were analyzed by comparing WHO's (2017) that recommended performance indicators.
Results: According to the stakeholders, the diphtheria surveillance system was acceptable on case finding, logistics support, recording and reporting, and feedback, but it was not acceptable in specimen collection and data analysis. The indicators of the surveillance performance evaluated were 8 indicators, of which 7 indicators had met the WHO target (>80%), including completeness of reporting (100%), timeliness of reporting (100%), adequacy of investigation (100%), timeliness of investigations (100%), specimen collection (100%), timeliness of specimen transport (90%) and timeliness of reporting laboratory results (100%). The indicator of timeliness of specimen collection had not on the target (42.85%).
Conclusions: This evaluation showed that diphtheria surveillance system was acceptable, but not acceptable in specimen collection and data analysis. By eight surveillance performance indicators, one of them had not on the target. So, capacity in specimen collection and data analysis needs to be improved.
Keywords: diphtheria, surveillance, evaluation, indicator

2. **Barriers and Recommended Interventions in The Implementation of The Case-Based Measles Surveillance (CBMS) - Special Region of Yogyakarta (DIY), 2019**

Authors: Kornelius L. Son[1], A.S.D. Nugroho[2], B. Rahayujati[3]
[1]FETP FKKMK UGM; [2]Yogyakarta Province Health Office; [3]Kulon Progo District Health Office

Background: Since 2016, the Health Office of DIY has developed the surveillance system by implementing CBMS into two different models (Manual and Web-Based Reporting) aiming to increase the CBMS performance in new case detection. This evaluation was to identify barriers and to recommend appropriate interventions of CBMS implementation in DIY.
Methods: Descriptive evaluative study was conducted from January 2019 to March 2019. A total of thirty four (n=34) surveillance officers in two levels. The first level including 20 health care centers and 4 hospitals. While the second level including 5 health offices in DIY. Samples were defined by using purposive sampling based on the completeness of the report. Data about barriers in the implementation of CBMS was collected by using a structure questioner regarding the barriers experienced by the officers in implementing CBMS.
Results: In the first level, we found four main barriers including the double burden of task (86.4%), the lack of training (77.3%), the complexity of reporting form (77.3%) and time delay on specimen collection (63.6%). Meanwhile, in the second level, we also found four main barriers including the complexity of reporting form (100%), time delay in case reporting (80%), double burden of task (80%), and time delay in laboratory confirmation (40%).
Conclusions: This evaluation showed that poor implementation in CBMS was resulted by the barriers. Two intervention functions will be applied as relevant for the intervention, only applying the web-based CBMS reporting model which can overcome task burden and lack of training, and Modifying CBMS form by cutting off some duplicated variables (e.g. variables of onset time of conjunctivitis, runny nose, cough and additional cases) which can simplify CBMS form.
Keywords: barriers, intervention, case-based measles surveillance

3. **The Association between Immunization and Nutritional Status with Diphtheria Outbreaks in Serang Regency, Banten Province 2017-2018**

Authors: Januar T. Kencana[1], A. Nurlina[1], T.Y. Miko[2]
[1]FETP Recent Graduate Universitas Indonesia; [2]Department of Epidemiology, Faculty of Public Health, Universitas Indonesia

Background: Diphtheria as a one of the most contagious diseases that can be prevented by immunization (VPD) is still a serious health problem because it often causes outbreak in various countries including Indonesia. Based on data from the Ministry of Health of the Republic of Indonesia, during 2017 there have been diphtheria outbreaks in 20 provinces and 95 regency/cities including Serang Regency.This study aims to determine the accociation between immunization and nutritional status with the diphtheria outbreaks in Serang district of Banten Province in 2017-2018.
Methods: This study was an analytic study using case control design with 172 respondents consisting of 43 cases and 129 controls. Logistic regression analysis was performed to obtain an estimate of the relationship between immunization and nutritional status with diphtheria after controlled covariate variables.
Results: Proportion of immunization and good nutrition in the case is lower than in control. Immunization and nutrition in both cases were 51.2% and 76.7% while in controls were 77.5% and 81.4%. The association (OR) between immunization status and diphtheria was 3.78 (95% CI: 1.48-9.60) after controlling to age, room density and natural house lighting while the association (OR) between nutritional status and diphtheria was 1.23 (95% CI: 0.44-3.41) after controlling to age, knowledge, humidity, and immunization status.
Conclusions: The proportion of immunization in diphtheria cases is still low. Non-immunization status are at risk for diphtheria 3.78. The Health Office is expected to conduct routine monitoring and evaluation of basic immunization programs, especially in areas with low coverage and provide information to the community about diphtheria, including factors such as immunization, nutrition, and the physical environment of the house.
Keywords: Diphtheria, Serang Regency, Banten Province, 2017-2018.

4. **Evaluation of Measles Surveillance System in Magelang District 2017**

Authors: Efi Sriwahyuni[1]; A. Isworo[2]; R. A. Ahmad[1,3]
[1]FETP FKKMK UGM; [2]Politeknik Kesehatan Semarang; [3]Center for Tropical Medicine, FKKMK UGM

Background: Measles is one of infectious disease and became top ten diseases alert in Early Warning System and Response (EWARS), but Magelang District Health Profile reported zero case of Measles. Measles surveillance in Magelang District reported in EWARS website also monthly report according to Case Based Measles Surveillance (CBMS) by using C1 form, but there are some weaknesses. This study aimed to evaluate the completeness and timeliness of CBMS in Magelang 2017.
Methods: This evaluation conducted in December 2017 – January 2018 by interviewing 29 surveillance officers of public health center (PHC) in Magelang District. Data were collected using standardized questionnaire and document observation. Data analysis was done descriptively.
Results: There were 55% PHCs which did not report C1 form to Magelang District Health Office (DHO). Of those PHCs that reported the C1 form, 24% PHCs send printed report directly to the DHO Surveillance Officer and 21% sent the form via email. Both hard and soft copies were not well managed by DHO surveillance officer. The Completeness of CBMS only 20,4% and 97,6% in EWARS website. Timeliness of the report of CBMS could not be measure because there was no control card, but in EWARS website was 81,8%. Feedback from the Magelang DHO was only for EWARS report. Only 37,9% PHCs have the Measles Surveillance Technical Guidelines. As much as 37,9% PHCs surveillance officer did not attend training.
Conclusions: CBMS in Magelang district was not optimal due to low of completeness and timeliness. We recommend to refresh surveillance officer by training and develop a single window system of reporting and monitoring of CBMS such as using Google form facilities.
Keywords: measles, surveillance, completeness, timeliness

Session 2 – The Gianyar Room

Topic: Food and Water Borne Diseases 1

1. **An Outbreak Investigation of Food Poisoning In Refugee Camps – North Lombok District, 2018**

Authors: John S. Kaku[1], A.R.Winarti[1], I.F.Waridjo[1], Helda[2]
[1]FETP Student Universitas Indonesia; [2]Departemen Epidemiology, Faculty of Public Health, Universitas Indonesia

Background: On August 5th 2018, an earthquake struck the Lombok Island and made the residents stayed in the refugee camps. On August 19th 2018, health officers of The Kayangan Health Center in The North Lombok District received reports of food poisoning occurred in one of the refugee camps after consuming cakes and food. Investigations were performed to identify sources of the outbreak, cut off the transmission chain, and recommended further actions to the health officers.
Methods: This investigation was performed used a case control study (ratio 1:1). Cases were refugees who experienced fever, nausea, vomiting, diarrhea and dizziness. Food samples were delivered to The Agency of Drugs and Food Control in Mataram for laboratory confirmation. Data was analyzed used chi-square test with the STATA software.
Results: There were 52 cases out of 130 refugees who consumed cakes and food (AR 40%). The case occurred among women (63,46%) and under the age of 15 years old (19,23%). The incubation period was ranged between 1,5 and 3,5 hours. The cake was suspected as the main cause of the outbreak (OR 5,79; 95% CI: 2,46 – 13,64) according to the analysis result. Laboratory results cannot be obtained because its building was also affected by the earthquake. Poor sanitation in the camps, lack of hygiene during the process and distribution of food were contributing factors in the outbreak.
Conclusions: Based on its symptoms and the analysis result, *Staphylococcus* was suspected to be the causative agent of the outbreak. The health officers had conducted health promotion about clean and healthy living behavior. In addition, they cooperated with volunteers to supervised food handling in every camp more carefully in order to prevent recurrence of the outbreak.
Keywords: Food poisoning, outbreak, refugee, lombok

2. **Epidemiology of Post-Disaster Diarrhea: Central Sulawesi, Sigi Regency, October 2018**

Authors: Andini R. Amanda[1], A. C. Hidajah[2]
[1]FETP Student Universitas Airlangga; [2]Department of Epidemiology, Faculty of Public Health, Universitas Airlangga

Background: Occurence of natural disasters can result in lack of clean water, nutritious food, and poor sanitation, thus making infectious diseases easily spread and infect the victim and has the potential for a outbreak. One example being diarrhea diseases. This study aims to describe cases of diarrhea after the disaster of the Earthquake and Liquefaction in Sigi Regency from 04 to 20 October 2018 based on people, place and time and identify possible outbreaks.
Methods: This study is a descriptive study of diarrhea cases that occur after a disaster. Data sourced from daily SKDR reports is responsive using the DHIS2 application. Data on diarrhea diseases will be described from the 4th to 20th October 2018 based on gender, age, public heath center.
Results: Over all, it can be said that on the 4th to the 20th of October 2018 cases of diarrhea continued to show improvement. Significant increase occurred in October 18th, as many as 63 patients, increased almost twice compared to 04 October 2018 as many as 11 patients. However, cases were spread evenly across all public health center. Distribution of cases according to age shows that the largest proportion is in the age group > = 5 years (68.31%), while in the age group <5 years (31.40%). Most cases occurred in the Biromaru Health Center area (55.21%). Based on the results of observations, it was found that the availability of clean water facilities (2.08%) and the availability of MCK (1.92%).
Conclusions: On 04 to 20 October 2018 cases of Diarrhea tend to increase. > 5 year age group at risk for contracting diarrhea. Most cases of diarrhea occur in Biromaru Health Center.
Keywords: Post-Disaster, Diarrhea, Sigi Regency

3. An Outbreaks of Bacillus cereus Post Iftar In Three Mosque at Minggir Sub District - Sleman, June 2018

Authors: Ika P. Asturiningtyas[1], M. Maulida[1], T.A. Wibowo[1] , S. Heryanto[2]
[1]FETP FKKMK UGM; [2]Wonogiri District Health Office

Background: On June 5, 2018, Minggir Primary Health Care reported to Sleman District Health Office that 14 peoples get stomachache and diarrhea post iftar in Tegalklagaran mosque on June 4, 2018. Epidemiological investigation was conducted on June 6, 2018 to verified the outbreak, identified risk factor and implemented control measures.
Methods: This was case-control study with ratio 1:2. Case were peoples who attended iftar in Tegalklagaran, Cerbonan, and Watugajah mosques on June 4, 2018, and those who were absent but received food and got symptoms like abdominal pain and or diarrhea with or without dizziness, nausea, vomiting, and fever. Data collected by interview using questionnaire and observation to the food handler. Food samples were tested on Yogyakarta laboratory. Data was analyzed using Chi-Square and Logistic Regression.
Results: Out of 172 persons, there were 53 cases (attack rate 30,81%). Majority of the case was women (64,1%) and <20 years age group (37,7%). The most common symptoms were abdominal pain (100%) and liquid diarrhea (86,7%). The highest case was in Tegalklagaran Mosque (58,5%). Incubation period was 10 hours and the epidemiological curves showed common source type. The highest attack rate food was sauce (47,9%). Multivariate analysis also showed that sauce was statistically significant (aOR:3,102; Pvalue=0,002). Laboratory confirmation showed *Bacillus cereus* on sauce. Potential risk factor include sauce stored in a bottle with adding some water, placed downstairs, and also un-hygiene environment.
Conclusions: Food poisoning outbreak occurred after consuming sauce contaminated with *Bacillus cereus*. Possible risk contamination was due to poor storage and the contamination of water added to the sauce. District Health Office should conduct training about food hygiene, so the food handlers could process the food according to the regulations.
Keywords : outbreak, food poisoning, *Bacillus cereus*, sauce

4. Outbreak of Food Poisoning At Elementary School No 1 Abiansemal Dauh Yeh Cani Badung District In 2018

Authors: Mego Windyningtyas [1], NM Setiawati[1] , NLP Suariyani[2,] IGAA Naya[3]
[1] FETP Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; [2] Department of Public Health Preventive Medicine, Faculty of Medicine, Universitas Udayana; [3]Badung District Health Office

Background: On October 24, 2018 there were reports of suspected food poisoning outbreaks at SDN No.1 Abiansemal Dauh Yeh Cani with as many as 18 people with symptoms of headache, nausea, vomiting, abdominal pain, diarrhea and fever. The purpose of the study was to ensure the occurrence of outbreaks, identification of sources and causes of poisoning and formulate responses to outbreaks.
Methods: This study use case control design, with 54 samples (1:2). Cases are people who experience at least two symptoms of headache, nausea, vomiting, abdominal pain, diarrhea or fever after consuming food from the school canteen, peddlers or stalls outside the school while controls are people who do not experience symptoms of pain. Data were collected by interviews, observation and laboratory tests.
Results: The case of food poisoning was 18 students with an attack rate in men of 56% and class V of 28.57%. Symptoms were nausea (72.22%), headache (66.67%), abdominal pain (55.56%), vomiting (50%), diarrhea (5.56%) and fever (5.56%). The epidemic curve is a common source type with an incubation period of 20 minutes to 2.5 hours. The analysis showed that the outdoor school stalls were risk factors with OR=22.27 (95% CI=2.46-201.43; p-value (0.001)) and hand washing habits OR=43.75 (95% CI=4.88-392.65; p-value (0,0001)). The results of laboratory tests on mango salad were *Eschericia coli* and vomiting specimens were *Staphylococcus aereus*.
Conclusions: There has been an outbreak of food poisoning at SDN No. 1 Abiansemal Dauh Yeh Cani where the source is an outdoor school stall contaminated with *Staphylococcus aureus* germs. Efforts to supervise and foster food processing hygiene and sanitation and healthy school canteen programs need to be improved to prevent recurring outbreaks.
Keywords: *food poisoning, case control, Staphylococcus aureus*

Oral Presentations 3 and 4

Tuesday, August 20, 2019/14.00-15.00

Session 3
Food and Water Borne Diseases 2
Moderator: dr. Citra Indriani, MPH

Debri Rizki Faisal – FETP UI, Outbreaks of Food Poisoning in Trauma Healing Program for Earthquake Victims in Mapin Rea Village, West Sumbawa Regency 2018

Stefiani Bengan Laba – FETP UGM, Food Poisioning Outbreak Investigation in Kelurahan Karanggeneng and Bank BPR Boyolali, 2018

I Made Arta – FETP UNUD, Food Poisoning at Sekolah Dasar Negeri 2 Taman, Abiansemal, Badung District, Bali, 2019

Dhiky Hidayat – FETP UNHAS, Investigation of Food Poisoning Outbreaks in Pallantikang Village, Gowa District 2019

Session 4
Vector Borne Diseases
Moderator: dr. Risalia Reni Arisanti, MPH

Febriansyah– FETP UGM, Outbreak Investigation of Malaria Cases in Kedung Pomahan Kulon Village, Kemiri Sub-District, Purworejo District - 2017

Agustinus Sanga Hurint – FETP UNAIR, Analysis of the Problems of Dengue Hemorrhagic Fever in Magetan District, East Java, 2019

Rian Saputra – FETP UGM, Evaluation of Plaque Surveillance After 50 Years of Implementation

Ririn Restuningati – FETP Intermediate, Evaluation of DHF Surveillance System in Tuban District, 2018

Session 3– The Denpasar Ballroom

Topic: Food and Water Borne Diseases 2

1. **Outbreaks of Food Poisoning in Trauma Healing Program for Earthquake Victims in Mapin Rea Village, West Sumbawa Regency 2018**

Authors: Debri.R.Faisal[1], Syahrizal[2] ,Rusli[3]
[1]FETP Student Universitas Indonesia; [2]Faculty of Public Health Universitas Indonesia; [3]Field Supervisor

Background: On Sunday, October 9th, 2018, at 3:30 p.m., the Association of Police Wife (Bhayangkari) held a trauma healing program for the children of earthquake victims in Mapin Rea Village. The activities were also distributed rice boxes and snacks. At 8:00 p.m WITA, there were 117 patients treated at the Alas Barat Health Center with symptoms of food poisoning. The investigation was conducted to ensure the outbreaks, determine the causes and risk factors for food poisoning.
Methods: Investigation was conducted with active case finding by interviewing people who participated in trauma healing program using a structured questionnaire. A retrospective cohort study to estimate risk ratio was calculated by using chi-square tests. The case definition was people who participated and received rice boxes or snacks at the trauma healing program on October 9th, 2018, and experienced vomiting, dizziness, abdominal pain and other symptoms of food poisoning. Food and biological samples were examined in the BBTKLPP Yogyakarta laboratory.
Results: There were 218 people who consumed food parcels distributed by Bhayangkari where there are 150 people (68.81%) experienced symptoms of food poisoning with the most cases for toddlers and children that is 105 people (70.00%). The predominant symptoms were vomiting (74.67%), abdominal pain (73.33%) and nausea (73.33%). Chicken's meat suspected of causing food poisoning with RR = 3.11 (95%CI=2.00-4.82). The epidemic curve shows a common source type with a mean incubation period was 3 hours with a range of 1-9 hours. Laboratory results found E.coli in food and biological samples. Information about the processing and packaging of food was not obtained because Bhayangkari refused to interview.
Conclusions: The outbreaks of food poisoning in earthquake victims in Mapin Rea Village was caused by poor hygiene foods. Health Office and Health Center should be monitoring of food hygiene and sanitation at the evacuation post and food provided by volunteers.
Keywords : Outbreaks, Earthquake, Food poisoning**.**

2. **Food Poisioning Outbreak Investigation in Kelurahan Karanggeneng and Bank BPR Boyolali, 2018**

Authors: Stefiani .B. Laba[1], R. Saputra[1], T. Kuncoro[2], R. Ahmad[1]
[1]FETP FKKMK UGM; [2]Boyolali District Health Office

Background: On December 7, 2018, Boyolali I public health center (PHC) reported to Boyolali district health office that employees of Bank BPR Boyolali experienced diarrhea after celebrating their director's birthday. A day after, the same PHC sent the second report that the members of Kelurahan Karanggeneng had the same symptoms after participating in choir training. The investigation conducted to identify the source of infection and control measure.
Methods: A retrospective cohort study was conducted. Cases were people who got diarrhea or nausea with/without vomiting, abdominal pain, fever, and headache after ate food in director bank boyolali birthday celebration or in choir training in Kelurahan Karanggeneng on December 5-6, 2018. Data collected through interviews using a questionnaire. Food Samples were examined by Semarang laboratory.
Results: Out 75, case number was 62 persons (attack rate 86%) with the main symptoms of diarrhea (91.8%) and nausea (60.7%). The average incubation period was 5 hours. Both events come from the same caterer. The potential risk factor was the food had been cooked in large quantities and storage without a label of date. Foods suspected as the cause of this outbreak was yellow rice after being controlled by other variables (RR = 4.97, p-value = 0.003, CI95% = 1.75-8.19). Differential diagnostic by agent refers to the Bacillus cereus and Staphylococcus aureus. The laboratory analysis showed positive of fungi and mold.
Conclusions: There was a food poisoning outbreak in Karanggeneng Village and BPR Boyolali Bank in December 2018 which likely caused by yellow rice that contaminated of Bacillus cereus. Improper sample hander being a limitation of this study. Food management training needed to be given to the caterer to prevent similar incidents in the future.
Keywords: food poisoning, Bacillus cereus, Catering, Boyolali

3. Food Poisoning at Sekolah Dasar Negeri 2 Taman, Abiansemal, Badung District, Bali, 2019

Authors: I M Arta[1], M W Hapiz[1], P C D Yuliyatni[1,2], C I D Astiti[2], I M J Widyartha[3]

[1] FETP Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; [2] Department of Public Health Preventive Medicine, Faculty of Medicine, Universitas Udayana; [3]Bali Province Health Office; [4]Badung District Health Office

Background: Surveillance staff of Badung District Health Office received (DHO) a report that students of SDN 2 Taman had nausea, vomiting and dizziness after consuming food from school canteen on Tuesday, 18 February 2019, 9:20 a.m. Epidemiological investigations were conducted to describe the events, identify the cause and give recommendations.
Methods: The quantitative study applied through interviews and environmental observations. Cases was students who have at least two symptoms, nausea, vomiting, abdominal pain, dizziness, fever or sore throat after consuming food from school canteen (21 children). Control was students who did not have symptoms after consume food from the canteen (84 children). Food sample and vomit specimens were examined at the Bali Province Health Laboratory. Data analyzed descriptively and use logistic regression.
Results: There were 21 cases from 147 students. Symptoms were dominated by nausea 80.95%, dizziness 61.9%, vomiting 19% and only 5 people (3.4%) getting treatment to the Public Health Center (PHC). The higher attack rate found in women 14.86% and age 10-13 years 24%. Sausages showed a significant relationship as an outbreak risk factor (aOR 40,119, p-value=0,0001, 95%CI= 8,294-194,048). Result laboratory tests on rice and vomit is positive *Escherichia Coli*. Another risk factor were the canteen location close to a rubbish shelter, traders did not wash their hands and also never do a swab checks.
Conclusions: There has been an outbreak of food poisoning with a common source type. Risk factors analysis and laboratory had a difference results for the source of the outbreaks. PHC should be guidance and supervision of the school canteens through health promotion related to clean and healthy lifestyle and periodic a swab checks.
Keywords: Outbreaks, Food Poisoning, School Canteen, clean and healthy lifestyle

4. Investigation of Food Poisoning Outbreaks in Pallantikang Village, Gowa District 2019

Authors: Dhiky Hidayat[1], M. Wahidin[2]

[1] FETP Universitas Hasanuddin; [2]Gowa District Health Office

Background: Pattallassang Community Health Center reported to the Gowa District Health Office that 162 participants of family gathering in the Padivalley Golf had nausea, vomiting abdominal pain, and headaches at 3:00 p.m on February 18, 2019. The investigation is carried out to determine the causes and risk factors for food poisoning.
Methods: cohort studies were used to estimate risk factors. Case definitions are people who attend or get food at family gatherings at valley golf on February 18, 2019 and experience nausea, vomiting, abdominal pain and can be followed by other symptoms on February 18-19 2019. Case data is collected by interview using a questionnaire. Relative Risk Estimates (RR) were calculated using Chi-square. Food samples were tested by National Agency of Drug and Food Control of Makassar (BPOM Makassar).
Results: there were 162 cases (71.05% attack rate). Outbreaks occurred on February 18, 2019 at 1 pm until February 19, 2019 at 6 am, with the climax of the case occurring at 15.00-18.00 on February 18, 2019. The results showed that eggs (aRR = 2.21.95% CI = 1.46-3.32), meat (aRR = 1.93, 95% CI = 1.38-2.70), and sauce (aRR = 1.73, 95% CI = 1.43-2 , 09) were associated with food poisoning. Laboratory tests showed that *Staphylococcus aureus, and Escherichia coli* found in some foods provided.
Conclusions: An outbreak of food poisoning at Padivalley Golf Village Pallantikang, Gowa District on February 18, 2019 was caused by *Staphylococcus aureus*, and *Escherichia coli*. Training in food handling, guidance and supervision is required by the Gowa District Health Office to public food providers as prevention.
Keywords: *Staphylococcus aureus, Escherichia coli*, food poisoning, prevention

Session 4 – The Gianyar Room

Topic: Vector Borne Diseases

1. **Outbreak Investigation of Malaria Cases in Kedung Pomahan Kulon Village, Kemiri Sub-District, Purworejo District – 2017**

Authors: Febriansyah[1], M.Prasetyaningrum[1] T.A. Wibowo[1], Z. Chomariyah[2]
[1]FETP FKKMK, UGM, [2]Purworejo District Health Office

Background: Malaria still become public health problem in Menoreh Hill. On Saturday, July 29th, 2017, Purworejo District Health Office received a report from Kutoarjo Palang Biru Hospital, that were two positive cases in Kedung Pomahan Kulon Village. Since 2009, there was no reporting case from that village. Investigation was carried out to ensure the outbreaks, identify the risk factors and prevent the widespread of the outbreak.
Methods: Unmatched case-control study 1:2 was conducted. Active case findings and mass blood surveys were done. Cases were people with positive malaria parasite who were diagnosed through blood test by health workers in 2017. The observed risk factors included demographics (gender, age, and occupation), behaviour (travel activities and malaria prevention efforts), and environment (distance between breeding sites and houses, type of wall, floor, gauze ventilation, and ceiling of the house)
Results: A total of 28 cases from 1,631 populations occurred in 3 hamlets (kaliwuluh, beji, clapar kidul) with attack rate (AR) 17.20‰. The species were 17 Plasmodium falciparum (two of them with gametocyte stage) and 10 Plasmodium vivax. The index case was Mrs. P (gametocytes) who got sick on June 29th 2017. Majority of the cases come from Kaliwuluh hamlet (AR=91.6‰), ages between 10-14 (AR=29.4‰), and men (AR=20.5‰). The distance between breeding sites and houses were become the highest risk factor with OR 7.44 (95% CI 2.11-32.62; p-value 0.0003).
Conclusions: Outbreak has occurred in Kedung Pomahan Kulon Village in June to September period. Utilization of long-lasting insecticidal nets, of breeding place for mosquitoes, indoor residual spraying were given to break the chain of transmission and close monitoring till twice period incubation should be conducted to ensure the outbreak resolve.
Keywords : Malaria, Outbreak, Investigation, Center of Java, Purworejo

2. **Analysis of the Problems of Dengue Hemorrhagic Fever in Magetan District, East Java, 2019**

Authors: Agustinus Sanga Hurint[1], Kurnia Dwi Artanti[2], Agoes Yudi Purnomo[3]
[1]FETP Student Universitas Airlangga; [2]Departement of Epidemiology Universitas Indonesia; [3]Magetan District Health Office

Background: Case Fatality Rate (CFR) of Dengue Hemorrhagic Fever (DHF) in Magetan District during 2013-2017 is still above the target. CFR was 3, 66% in 2013, 6.25% in 2014, 1.94% in 2015, 2.42%in 2016 and in 2017 CFR was 2.42%. The purpose of this study is to analyze health problems in the DHF program at Magetan District Health Office in the year of 2013-2017.
Methods: This study is a descriptive observational study. It conducted at the Health Office of Magetan District. The types of data collected are secondary data on the health profile of Magetan District in 2013-2017, surveillance reports and indepth interviews with programers. Priority problem using the Urgency, Seriousness, Growth (USG) method. Priority of problems found is identified as causes of problems with problem analysis diagrams. The root cause of the problem found in priority with the CARL method (Capability, Accessability, Readiness, and Leverage) and made alternative solutions to problems.
Results: DHF CFR of 2.42% is still above the national target. It became the main priority of health problem in Magetan Districtbase on USG method. The root cause found that the handling of patients is still not optimal, DHF morbidity rates are still above the target, environmental conditions still strongly support the spread of DHF, the lack of community participation in supporting the DHF controlling, DHF services in health centers and DHF vector control have not been optimal.
Conclusions: Cross-sector advocacy efforts are needed related to prevention and controling of dengue fever, socialization of the importance of controlling mosquito's breeding places in Magetan District for prevention of dengue, treatment and also about the importance of conducting laboratory assestment to obtain the true diagnosis.
Keywords: DHF, CFR, USG, Magetan

3. Evaluation of Plaque Surveillance After 50 Years of Implementation

Authors: Rian Saputra[1], T. Kuncoro[2], R.A. Ahmad[1]
[1]FETP FKKMK UGM; [2]Boyolali District Health Office;

Background: Boyolali district is one of the areas in Indonesia that has high potential to suffer from plague outbreak due to the previous history on 1968 which affected 203 people with 41.8% fatality. Active and passive surveillance has been established to monitor both human case and the reservoir. This study aimed to assess the performance, identify weakness and develop recommendations.
Methods: A descriptive observational was conducted. Primary data come based on field observations and interviews with plague surveillance officer at Selo Public Health Center and Cepogo Public Health Center. The secondary data of surveillance reporting were observed from 2007-2018 and the data compared with the guideline of plague control released by Ministry of Health, 2014.
Results: The surveillance reporting on human has never been documented. While the surveillance reporting on rodents has been well documented since 2010-2018. There were 9.948 rodents trapped in domestic area with the success trap of 4,3%. The Specific Flea Index was 1,0% and the Total Flea Index was 1,6% were the main reservoir was *Rattus Tanezumi* and the flea species was *Xenophsylla Cheopis*. Of 12.727 rodent specimens, there was only 1 confirmed positively according to serological confirmation in 2007. However, the trapping activity in sylvatic areas has not yet been carried out.
Conclusions: Plague surveillance has been performed appropriately to the guideline and has been able to fulfill the objective of identifying rodents and fleas that be transmission of plague. The plague surveillance is still implemented but needs some improvement such as increasing traping rodent activities in the sylvatic area, improvement in human reporting surveillance to detect epidemiological tendencies and the existence of *Yersinia Pestis* in domestic and sylvatic areas.
Keywords: plague surveillance, evaluation, rodent, trapping

4. Evaluation of DHF Surveillance System in Tuban District, 2018

Authors: Ririn Restuningati[1], A.F.Firnawati[2]
[1]FETP-Intermediate Trainee, Tuban District Health Office; [2]Field Supervisor

Background: Tuban district is one of the areas with high incidence of dengue in East Java Province from the last 4 years. A Significant increase of dengue in Q1-2019 compared from Q1-2018. Surveillance of dengue never been evaluated before. We evaluate dengue surveillance to understand the performance of dengue surveillance and recommend improvement.
Methods: Descriptive analysis was done to analyze dengue data. Qualitative data collected by interviewing dengue program managers at all Health Centers (HC) and District Health Office (DHO) Tuban using structured questionnaire. System review was performed to understand the operation of dengue surveillance. Surveillance attribute measured were completeness, timeliness, data quality and utilization of data.
Results: Dengue surveillance use five different reporting forms for different purposes (W1-24 hours, W2-weekly, DK-DBD-case summary, DP-DBD-case based, KDRS-DBD-hospital). Completeness of reporting were: W1:21%; W2:57%; DP-DBD/K-DBD: 89%, KDRS-DBD: 100%. We found the discrepancy between report received by DHO and report sent by HC. Timeliness of W2:42%, and DP-DBD/K-DBD: 76%. Only 76% of HC use the data to respond immediately. We also found that 10% of HC not using standard case definition, and 10% not using standard forms. Missing values were found in reporting forms. All dengue program manager has multiple tasks. National guidelines was difficult to understand, incomplete and inconsistent.
Conclusions: Performance of dengue surveillance was not meet national standard performance indicators. Data analysis and utilization was not routinely done to meet dengue surveillance objectives. We recommended to reduce duplication of forms, regular feedback from Province Health Office, improve the capacity of dengue program managers on dengue surveillance, epidemiology and time management. National dengue surveillance guideline need to be improved
Keywords: Public Health Surveillance, dengue, evaluation

Oral Presentations 5 and 6

Tuesday, August 20, 2019/15.00-16.00

Session 5
Chronic Disease and Health Promotion
Moderator: dr. Muh. Asri, MPH

Vennesa V.M Susanto – FETP UNUD, Evaluation after Implementation of Data Entry Training through System Information Surveillance (SIS) Online Application for Non-Communicable Diseases (NCD) Surveillance Staff, Gianyar District, Bali 2018

Menikha Maulida – FETP UGM, Challenges in Implementing the Comprehensive of Disaster Mental Health Program (DMHP) in Primary Health Care (PHC) - Wonogiri District, 2018

Faridha Almira– FETP UNAIR, Evaluation of Hypertension Surveillance In Blitar District, East Java Province in 2018

Defi Amalia S.N – FETP UI, Evaluation of Primary Health Care Based on Non Communicable Diseases – Hypertension Surveillance System in Bogor City, 2018

Session 6
Maternal, Child and Reproductive Health
Moderator: dr. Dwi Oktavia TLH, M.Epid

Iffa Karina Permatasari – FETP UGM, Evaluation of Therapeutic and Community Feeding Center – Kulon Progo District, 2018

I Nengah Adnyana Surapathi – FETP UNUD, Seroprevalence of Human Immunodeficiency Virus and Hepatitis B Infections in Pregnant Women in Karangasem District, 2017

Yahya Benyamin Bebengu – FETP UNAIR, Analysis of Basic Immunization Coverage in Tulungagung District 2019

Rosita Dwi Jayanti – FETP UGM, An Evaluation on Web-Based Surveillance System of Chronic Energy Deficiency in Pregnant Women in Gunungkidul District, Special Region of Yogyakarta Province, 2018

Session 5 – The Denpasar Ballroom

Topic: Chronic Diseases and Health Promotion

1. **Evaluation After Implementation of Data Entry Training through System Information Surveillance (SIS) Online Application for Non-Communicable Diseases (NCD) Surveillance Staff, Gianyar District, Bali 2018**

Authors: Vennesa V M Susanto[1], P. Yuliyatni[1,2], D Harimbawa[3]
[1]FETP Postgraduate of Public Health Universitas Udayana; [2]Department of Public Health and Preventive Medicine, Faculty of Medicine Universitas Udayana;[3]Gianyar District Health Office

Background: After first evaluation, NCD surveillance in Gianyar district needed a data entry training through SIS online application as implementation (0% data entry). Therefore, the training held in 13th September 2018. Approval target for data entry was minimum 5 data each day for *FKTP* data and enter all *e-monev* data. This evaluation aimed to know the result of the implementation using surveillance indicator and responses world health organization (WHO).
Methods: This evaluation used several methods, in-depth interviews (NCD surveillance officers) and online report analysis (SIS applications). The evaluation started from September-December 2018. Using surveillance indicator and responses WHO (system structure, core functions, support functions and quality attributes) as indicator of the evaluation and using questionnaire as instrument.
Results: For system structure attribute, online reporting has been activated since 2017 (legal aspect); for core functions attributes, there was 24.7% increase in *e-monev* data and 0% for *FKTP* data (report); for support functions attributes, there was 77% health center NCD surveillance staff and 100% of Gianyar district health office NCD surveillance staff attend the training (training), monitoring done through WhatsApp messanger and there was no further feedback from district health office staff (monitoring), there was lack of materials such as computer/laptop and internet network (resource); for quality attributes, 15.4% health center complete *e-monev* data and 0% for *FKTP* data (completeness), NCD surveillance staff said that online report not simple (simplicity).
Conclusions: Online data increases but only slightly. It is recommended to improve monitoring and coordination, also providing time limits, targets and always reminding NCD surveillance staff related to data entry.
Keywords: program evaluation, non-communicable diseases, risk factors, internet

2. **Challenges in Implementing the Comprehensive of Disaster Mental Health Program (DMHP) in Primary Health Care (PHC) - Wonogiri District, 2018**

Authors: Menikha Maulida[1], S. Heryanto[2], T. A. Wibowo[1]
[1]FETP FKKMK UGM; [2]Wonogiri District Health Office

Background: Indonesia is a disaster-prone area including Wonogiri District. During a disaster, people did not only experience physical damage but also experienced a decrease in mental and emotional conditions. Disasters can increase the risk of severe or moderate mental health disasters as much as 20%. This study aimed to know the challenges in preparing and implementing comprehensive disaster mental health programs at PHC.
Methods: This study was an observational study using mixed methods. Subjects for quantitative study were 21 of 34 PHCs in Wonogiri District and 2 district officers. Subjects for qualitative study were 5 patient's family, 1 district's psychiatrist, and 1 social worker in rehabilitation center. Evaluation conducted in July-August 2018. Sample size of subjects was calculated using Slovin formula. Primary data were obtained by interview using questionnaire. Data analysis was done descriptively.
Results: There was no special budget allocation for mental health program (MHP) at PHCs. There was only 1 psychiatrist in the district and no psychologist at PHCs. All mental health officers (MHO) in PHCs were nurses. Only 5 of 21 MHO received training about MHP. There was no disaster/emergency mental health team. Only 25% PHC had screening instrument and surveillance form. Besides that, the other results include the incomplete medicine supply in the district and the lack of attention to mental health which was the problem of district-level supervision to PHCs, especially for MHP.
Conclusions: Challenges in the implementation of MHP were related to resources, funding, health surveillance, self-motivation, health insurance, and supervision. Importance of including disaster mental health plans, community support, surveillance, collaboration across institutions and resources upgrading can lead to implementing for disaster mental health program.
Keywords: Disaster, Mental Health, Program, Implementation, Challenges

3. **Evaluation of Hypertension Surveillance In Blitar District, East Java Province in 2018**

Authors: Faridha Almira[1], A.C Hidajah[2], A. Nugroho[3]
[1]FETP Student Universitas Airlangga; [2]Department of Epidemiology, Universitas Airlangga; [3]East Java Province Health Office

Background: Hypertension is one of the highest causes of death in the world. Based on the health profile book of Blitar District, hypertension was in the top 10 diseases that have occurred in Blitar in the past few years. One effort to control hypertension is the surveillance of hypertension, which is integrated with surveillance of non-communicable diseases. The objective of this study was to evaluate the hypertension surveillance system based on attributes in Blitar District
Methods: This study was an evaluation study. The subject of this study was a hypertension surveillance system. The informants were 12 people consisting of 10 people in the Puskesmas, two officers at the Blitar District Health Office. The selection of informants is done purposively. Puskesmas were chosen based on the location of the administrative region (north, south, east, west and center), each region selected 2 health centers with the criteria of the highest and lowest number of cases. Previous holders of the NCD Program at the Blitar District Health Office were interviewed because the current program holders only served one year. The instruments used in this study are interview guides, observation sheets, stationery and voice recording devices. Data analysis was carried out descriptively.
Results: Of the 12 informants interviewed, 58.3% of the participants were women. 41.7% of informants have vocation education in Health, 50% of officers have tenure as NCD officers for 1-2 years. 90% of informants stated that the hypertension surveillance system was simplicity. The system was quite flexible and sensitive. Acceptability and representative data are good enough. The study of documents in the 2017 report recapitulation in the Blitar Health Office show that 50% of the 10 Puskesmas interviewed did not collect reports regularly every month. Data quality and data stability were quite good. The assessment of the attributes of positive predictive value cannot be done.
Conclusions: The hypertension surveillance system in Blitar District was simple, flexible and sensitive. Acceptability and representativeness were quite good However, the high workload of officers and the amount of data that needs to be entered often makes timeliness and quality of data less. It is necessary to optimize the role of Posbindu cadres in the entry of Posbindu data, especially in web-based surveillance in order to reduce the workload of officers at the puskesmas level so that recording and reporting activities can still run well.
Keywords: Attributes, Surveillance, Hypertension, Simplicity, Acceptability

4. **Evaluation of Primary Health Care Based on Non Communicable Diseases – Hypertension Surveillance System in Bogor City, 2018**

Authors: Defi A. S. Ningrum[1], B. Kusnadi [2]
[1]FETP Student Universitas Indonesia; [2]Bogor City Health Office

Background: Based on basic health research in 2013, the prevalence of hypertension in Bogor City was higher than national prevalence of hypertension. The result of NCDs priority setting in Bogor City on 2017 placed hypertension as the most priority disease of NCDs. Hypertension surveillance system in Bogor City has not been evaluated externally. The purpose of this evaluation is to describe and assess the performance of NCDs – Hypertension Surveillance System in Bogor City.
Methods: This evaluation interviewed doctor and officer coordinator of the NCDs surveillance for the 25 primary health care in Bogor city and reviewed case hypertension in NCDs surveillance monthly report from January – July 2018. CDC Guidelines for Evaluating Public Health Surveillance System was used to describe operation of the surveillance system, resource used to operate the system, and the performance of the surveillance system.
Results: The evaluation showed poor in analyzing surveillance data for action in primary health care level. Hypertension surveillance system is unstable due to server backup. About 66% of interviewed surveillance officers considered the system acceptable. The NCDs surveillance monthly report completeness was 67% and timeliness was 12%. There was diversity of doctor in defining the hypertension case which is influencing the quality of the data. The sensitivity was low in 15.8%.
Conclusions: Hypertension surveillance system in Bogor city is needed to be improve in all indicators performance. We recommend strengthening staff competence, building consensus about the operational definition of hypertension cases, and involving head of the primary health care to monitor the officers in collecting the report.
Keywords: Evaluation, Hypertension, Surveillance System

Session 6 – The Gianyar Room

Topic: Maternal, Child, and Reproductive Health

1. **Evaluation of Therapeutic and Community Feeding Center – Kulon Progo District, 2018**

Authors: Iffa K. Permatasari[1], Sugiarto[2], T. Hidayati[3]
[1]FETP FKKMK UGM; [2]Kulon Progo District Health Office, Yogyakarta; [3]Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta

Background: Malnutrition in children can result in stunting and other health problems if left untreated. Therapeutic Feeding Center (TFC) and Community Feeding Center (CFC) are programs that have been done in Kulon Progo District since 2012 to treat malnourished children and improve their nutrition status. This study aims to determine the success rates of both programs and identify factors that influence them.
Methods: The descriptive observational of TFC and CFC program evaluation conducted at two public health centers (PHCs) in Kulon Progo District, July-August 2018. Respondents were 26 children targeted by TFC and CFC programs in 2017. Data collected from primary and secondary data. Primary data collected by interview to targeted children's mothers/caregivers using standardized questioner. Secondary data was taken from both programs' report period 2017. Variables studied consist of improvement in nutritional status, graduation rate and factors influencing nutritional status.
Results: Of 8 severe underweight children in TFC, 3 (37.5%) children improved their nutritional status to underweight. One severe underweight child who participated in the CFC program did not experience improvement in nutritional status. Graduation rates in the TFC and CFC programs were 30.8% and 53.8%, respectively. Of the 11 children who did not graduate from the two programs, 9 (81.8%) had low appetite, 6 (54.5%) got some of their supplementary foods consumed by family, and 1 (9,9%) had grandparents as primary caregiver.
Conclusions: The graduation rates of malnourished children in the TFC and CFC program were still 30.8% and 53,8%. Child and family factors have important roles in supporting the success of children in improving nutritional status. Mentoring of mothers/caregivers is needed regarding efforts to feed children.
Keywords: therapeutic feeding center, community feeding center, malnutrition, program evaluation

2. **Seroprevalence of Human Immunodeficiency Virus and Hepatitis B Infections in Pregnant Women in Karangasem District, 2017**

Authors: I Nengah A. Surapathi[1], A. A. S. Sawitri[2]
[1]FETP Postgraduate of Public Health Universitas Udayana; [2]Department of Public Health and Preventive Medicine, Faculty of Medicine Universitas Udayana

Background: Human immunodeficiency virus (HIV) and Hepatitis B virus (HBV) occur in pregnant women can harm the fetus and passed on to the infant. However, these conditions are preventable by performing a screening test during antenatal care visits. This study aims to determine the seroprevalence of HIV and HBV in pregnant women attending the antenatal clinic in Karangasem District.
Methods: The total area of Karangasem District is 839.54 km² with a population of 469,265 people and one fifth population is concentrated in urban area and an estimated of 7,140 pregnant women. Retrospective analysis was conducted at the antenatal clinic at a district public hospital and 12 public health centers. Antenatal register and patient records were examined for the year 2017. Socio-demographic characteristics also obtained for age, type of areas and parity. Data were analysed descriptively.
Results: The overall seroprevalence of HBsAg (+) among the 3089 pregnant women was 2% (n=62) and 49 (79%) were screening test during antenatal care visits at a district public hospital. The prevalence of human immunodeficiency virus (HIV) infection was 0.2% (n=6) and 4 (66.7%) were found at a district public hospital. There was no dual infection of Hepatitis B and HIV. The highest HBV and HIV infections rate occurred in pregnant women of 20 – 29 years of age group, in rural areas and multiparous.
Conclusions: The endemicity of HBV and HIV infection is low. However, early detection and immune-prophylaxis for exposed new-born is essential. Health education programs on prevention and control measures must be institutionalized.
Keywords: HBV, HIV, Seroprevalence, Pregnant Women

3. Analysis of Basic Immunization Coverage in Tulungagung District 2019

Authors: Yahya B. Bebengu[1], A. C. Hidajah[2], A. Ratgono[3]
[1] FETP Student Universitas Airlangga; [2]Department of Epidemiology, Faculty of Public Health, Universitas Airlangga; [3]Tulungagung District Health Office

Background: Basic Immunization coverage is still one of problems in Tulungagung district. For the last 3 years, the basic immunization coverage did not cover all the target infants. In 2018, from the target of 15,147 infants, there were 1,116 infants (7,4%) who did not receive immunization of Hepatits B (Hb 0), 689 infants (4,5%) were not immunized with Bacillus Calmette Guérin (BCG) and 849 infants (5,6%) were not immunized for Oral Polio Vaccine (OPV) 1. The purpose of this study is to analyze the problems of basic immunization program in Tulungagung District Health Office in 2018.
Methods: This study was done at Tulungagung District Health Office from January to February 2019. Identification of problems was done by conducting interviews, analyzing secondary data on basic immunization coverage of the Tulungagung health profile from 2016 to 2017 and section report Surveillance and Immunization in 2018. Prioritisation of Basic Immunization problems was done using *Urgency, Seriousness, Growth* (USG) criteria. Analysis of the problem cause was done by Fishbone methods.
Results: Of the problems identified, the first priority problem in Tulungagung District 2018 is Hepatits B (Hb 0) immunization coverage does not reach the target. The root causes were poor immunization, under qualified workers in data collection and validation of targets, poor integration of Basic Immunization and Maternal and Child Health (MCH), lack of promotion and media campaign.
Conclusions: Low Hepatits B (Hb 0) immunization coverage is a priority problem for basic immunization programs in Tulungagung District. Optimization of the integration of child and maternal health immunization program (MCH) is needed, periodic validation of program coverage and health promotion on Hb 0 immunization using creative promotional media.
Keywords: Basic Immunization, USG, Fishbone, Maternal and Child Health

4. An Evaluation on Web-Based Surveillance System of Chronic Energy Deficiency in Pregnant Women in Gunungkidul District, Special Region of Yogyakarta Province, 2018

Authors: Rosita D. Jayanti[1], S.H. Sukoco[2], R.A. Ahmad[1]
[1]FETP FKKMK UGM; [2]Gunungkidul District Health Office, Yogyakarta

Background: Chronic Energy Deficiency (CED) is a notifiable nutrition deficiency in Indonesia that has impact on stunting and low birth weight. Started in 2018, the CED among pregnant women in Special Region of Yogyakarta including Gunungkidul district was reported using a web based surveillance system. The study aimed to assess attributes of flexibility, stability, timeliness, and data quality of the web based surveillance system of CED in Gunungkidul District.
Methods: This was a descriptive evaluation study. Primary data came from interview data of 30 midwives' coordinator at 30 Public Health Centers (PHCs) in Gunungkidul District and 1 manager of maternal and child health program in Gunungkidul District Health Office using structured questionnaires to assess flexibility, stability, timeliness, and data quality. Secondary data from the web based surveillance system was used to assess timeliness and data quality. Data were summarized using graphs and tables.
Results: 76.7% of midwives coordinator considered the web based system was easier than the previous system. 86,7% of them also reported no error data while reporting. The timeliness in sending reports was 48.3% due to 33.3% late reports from independent midwives. There was only annual data validation conducted by the program manager in district level, hence only 26.7% of PHCs showed equal comparison between the number of pregnant women measured by mid upper arm circumference and the number of those of the first visit (K1).
Conclusions: The web-based reporting system of CED in pregnant women was proven satisfactory in flexibility and stability. However, its timeliness and data quality were poor. A quarterly data validation is recommended to improve both, timeliness and data quality. Whatsapp Messenger Group is required to improve independent midwives' timeliness.
Keywords: web-based surveillance system, chronic energy deficiency, flexibility, stability, timeliness, data quality

Oral Presentations 7 and 8

Thursday, August 20, 2019/16.15-17.15

Session 7
Environment and Occupational Health, Respiratory Disease
Moderator: dr. Mondastri Korib Sudaryo MS, D.Sc

Gumson Josua Tampubolon – FETP UGM, Tuberculosis Treatment Outcome and Factors Associated in PT. Freeport Indonesia Miners, Mimika District, Papua 2016-2018; A Retrospective Cohort Study

Nyoman Suardani – FETP UNUD, Trends of Post-Earthquake Diseases at Nipah Health Center, North Lombok District, 2018

Ahmad Musyafa – FETP UGM, Health Seeking Behavior among individuals with Tuberculosis Symptoms in Blora, Indonesia 2017

Liliana Uddin – FETP UI, Determining the Health Problem Priority in Jember District Health Office, East Java, 2019

Session 8
Food and Water Borne Diseases 3
Moderator: Sugiarto, SKM, MPH

Reza Iqbal Suhada – FETP UGM, An Outbreak of Food Poisoning in Islamic Boarding School, Sleman, Yogyakarta, March 2019

Putu Ayu Merry Antarina – FETP UNUD, Water Contamination as a Risk Factors for Outbreaks in Banjar Sandan, Bangli Village, Baturiti District, Tabanan Regency 2019

Leli Rachmawati – FETP UGM, Outbreak Eschericia Coli O157 Associated with Contaminated Cooked Rice – Purworejo, January 2019

Michelle Rampengan – FETP UNUD, Diarrhea after the earthquake in North Lombok District - West Nusa Tenggara, 2018

Session 7 – The Denpasar Ballroom

Topic: Environment and Occupational Health, Respiratory Disease

1. **Tuberculosis Treatment Outcome and Factors Associated in PT. Freeport Indonesia Miners, Mimika District, Papua 2016-2018; A Retrospective Cohort Study**

Authors: Gumson J.Tampubolon[1], R.A. Ahmad[1,2], N. Rintiswati[2] Rustamaji[3]
[1]FETP FKKMK UGM; [2] Departement of Tropical Medicine, FKKMK UGM; [3]FKKMK UGM

Background: Mineral mining is one of the world's most hazardous occupations because of the clear link between mining, lung disease and tuberculosis (TB). No studies has been done to identify treatment outcome and risk factor of TB in the setting of mining area. The aim of our study was to estimate survival probability and to assess the association outcome of TB treatment among miner of PT. Freeport Indonesia (PTFI).
Methods: We conducted a retrospective cohort study among 191 TB patients treated at Tembagapura Hospital and Kuala Kencana Clinic PTFI. Patients were categorized as having successful and unsuccessful treatment. Data from January 2016 to December 2018 were analyzed using Stata/MP13.1. Survival rate was analyzed using Kaplan Meier method and Cox Regression analysis was applied to factors associated with TB treatment outcome.
Results: The survival probability at the end of the treatment (eighth month period) was 82.3%. A majority of unsuccessful treatment (57.8%) occurred during the intensive phase of the treatment. HIV history, TB type and health facility where treatment initiatiated were significantly different in the survival curve ($\rho<0.05$). Cox regression showed that patient with HIV history (HR 2.7; 95% CI 1.19-5.48), patient extrapulmonary TB (HR 2.4; 95% CI 1.05-5.76) and referral other health facilities (HR 2.5; 95% CI 1.19-5.48) were associated with unsuccessful treatment outcomes.
Conclusions: Most unsuccessful treatment occurred in the intensive phase. Patients with HIV, extrapulmonary TB and other health facility where treatment was initiatiated increased treatment failure. Therefore, health care providers should strengthen the DOTs program and a special follow up of TB patients during the intensive phase may be important to consider as interventions to reduce unsuccessful during TB treatment.
Keyword: Tuberculosis, Treatment Outcomes, Survival, Miners, PTFI

2. **Trends of Post-Earthquake Diseases at Nipah Health Center, North Lombok District, 2018**

Authors: Nyoman Suardani[1,2], A.A.S. Sawitri[1]
[1]FETP Postgraduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana, [2]Buleleng District Health Office

Background: The 6.4 magnitude earthquake occurred on 29 July 2018, in Lombok - NTB, followed by aftershocks with varying magnitudes. Many people lost their homes and forced to stay in crowded refugee camps with inadequate sanitation facilities. Recording and reporting disease data is crucial to provide post-disaster epidemiological information.
Methods: Observations were made at the Nipah Health Center (NHC) from 5 August to 10 September 2018. The NHC covers two villages (Melaka and Gili Indah) consisting of 15 sub-villages. After the earthquake, 74.9% of the 13,880 population lived in refugee camps. NHC staff provided services in refugee camps; meanwhile, volunteers and health post staff recapitulated the data. The aggregate data were reported daily to the NHC via Whats-App, while individual data were reported by email. Data were analyzed descriptively and presented with tables, graphs, and narratives.
Results: Total patients at the center were 3,001 cases. The top five diseases were ARI (681; 22.7%), minor injuries (293; 9.8%), acute diarrhea (225; 7.5%), skin diseases (184; 6.1%) and fever (139; 4.6%). Three diseases occurred mainly at the age of 20-44 were ARI (219; 32.2%), minor injuries (158; 53.9%) and skin diseases (64; 34.8%). Acute diarrhea (66; 29.3%) and fever (42; 30.2%) tends to be prominent at the age of 1-4. There were four varicella cluster cases in four sub-villages with a total of 16 cases. All cases have been dealt with and were not widespread.
Conclusions: The study found an increased case of infectious diseases related to the inadequate clean water provision and poor sanitation, injury cases as a direct result of earthquakes and varicella as a potential outbreak disease. Strengthening the recording and reporting system is essential for accurate Epidemiological information, but the integrated work of all sectors is a must.
Keywords: Surveillance, Disaster, Earthquake, Lombok

3. **Health Seeking Behavior among individuals with Tuberculosis Symptoms in Blora, Indonesia 2017**

Authors: Ahmad Musyafa[1], Citra Indriani[1], Riris Andono Ahmad[1]
[1]FETP FKKMK UGM

Background: On 2016, the WHO estimated 10.4 million TB cases in the world. Case findings are a key element of the TB control program, which is related to public health seeking behavior. The delay in health seeking will result in greater transmission in society. The study was conducted to determine the factors related with health seeking behavior among individuals with TB symptoms in Blora District
Methods: We conducted Cross-Sectional Study with multistage cluster random sampling. Subjects were people with cough more than 2 weeks with age above 15 years which fulfills the last 6 months, is able to communicate well and sign informed consent. We collected data with interview. Analyzes using Chi Square and Poisson regression with robust variance to estimate Prevalence ratio (PR).
Results: Of 240 respondents (43.33% DOTS), 50% male, 82.92% married and 83.33% live in the village. Median duration of patient delay 4.27 weeks. Health seeking behavior among individuals with symptoms of TB to medical care (59.58%), alternative health services (34.17) and unpaid (6.25%). The result of multivariable analysis showed that factors related to health seeking behavior were family income with p value = 0.002, PR = 0.52 (95% CI = 0.34 - 0.78) and knowledge level with p value = 0.043, PR = 0.74 (CI 95 % = 0.55 - 0.70). Individuals with high income and knowledge seeking treatment to non DOTS facilities and sel-employed physicians, pharmacies and drugstores.
Conclusions: Health seeking behavior among individuals with tuberculosis symptoms is related to the level of knowledge and family income. The involvement of private sector through publict private mix (PPM) and health promotion should be undertaken to improve TB prevention programs.
Keyword: Health seeking behavior, Tuberculosis, Blora

4. **Determining the Health Problem Priority in Jember District Health Office, East Java, 2019**

Authors: Liliana Uddin[1], C.U. Wahyuni[2], A.Y.Setiawan[3]

[1]FETP Student Universitas Airlangga; 2 Department of Epidemiology, Faculty of Public Health, Universitas Airlangga[3]Jember District Health Office

Background: Analysis of health problem priority is essential in order to plan appropriate solution program to health problems in the area with limited resources. This study aimed to determine the health problem priority in Jember on 2019.
Methods: This study was an observational descriptive study conducted on January 2019 in Jember. Health problem identification and analysis used primary data obtained through interviews and secondary data from the Regional Health Office Profile during 2016-2018. The data collected were demographics, surveillance reports, health status, morbidity, and mortality. Health problem priority was determined using the assessment of urgency, seriousness, and growth (USG) criteria of each problem, and then the root cause of the problem was determined with Ishikawa diagram sequencing.
Results: The main health problem priority was Tuberculosis (TB) with a value of 190. Tuberculosis was the top priority due to low percentage of Case Detection Rate (CDR) achievement in Jember. In 2016, the TB case finding rate was 49.42%, then in 2017 it decreased into 45.5% and in 2018 it decreased further into 40.3%. The root cause of the problem was the lack of report from health care workers (TB officers, TB cadres, independent doctors, nurses, and midwives) in finding TB cases and low public awareness to screen TB disease in Jember.
Conclusion: Low CDR is the main health problem priority in Jember. It is suggested to improve the report from TB health care workers through active case finding to increase the CDR and expand both cross-sector and cross-program cooperation to combat tuberculosis in Jember.
Keywords: Tuberculosis, health problem priority analysis, USG method, Ishikawa

Session 8 – The Gianyar Room

Topic: Food and Water Borne Diseases 3

1. **An Outbreak of Food Poisoning in Islamic Boarding School, Sleman, Yogyakarta, March 2019**

Authors: Reza Iqbal Suhada[1], Putri Adekayanti[1], Misinem[2], Haripurnomo Kushadiwijaya[1]
[1]FETP FKKMK, UGM, [2]Wonosobo District Health Office, Center Java.

Background: On March 2nd, 2019 Sleman District Health Office received a report on suspected food poisoning at an Islamic Boarding School in Sleman Regency which affected 23 students. Twenty students were referred to emergency unit due to severe nausea, vomiting, abdominal pain and headache. Investigation were initiated to find the source of transmission.
Methods: Steps in outbreak investigation was conducted. Students or teacher with nausea, vomiting, abdominal pain and headache was used as the case definition during active case finding. Food consumption history was collected during the interview. Case control with 1:1 ratio was design to identify potential risk factor. Food and faecal samples were sent to province laboratory. Data were summarized based on time, place and person, attack rate ratio were calculated.
Results: In total 37 cases were found with no fatality. Mean incubation period was 15 hours with minimum 7 hours and maximum 25 hours. Epidemic curve showed a common source pattern. There are three menus including breakfast, lunch, dinner. The second menu has the highest attack rate ratio of 3.98%. Laboratory test results showed *Proteus mirabilis* bacteria was found in faecal samples from two patients.
Conclusions: There was outbreak of food poisoning at an Islamic Boarding School in Sleman Regency. The source of food poisoning from the second menu, which contains chicken. It was same as the results of laboratory tests on 2 sample faeces of patients the bacteria Proteus mirabilis which causes diarrhea. Recommendation to the chicken sellers that they should more attention to cleanliness.
Keywords: Outbreak, Food poisoning, Students, Sleman

2. **Water Contamination as a Risk Factors for Outbreaks in Banjar Sandan, Bangli Village, Baturiti District, Tabanan Regency 2019**

Authors: Putu A. M. Antarina[1], D. M.A. Utami[1], A. A. S. Sawitri[1], I. K. Gita[2], I. W. Triana[3]
[1]FETP Postgraduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; [2]Denpasar City Health Office; [3]Tabanan District Health Office

Background: On January 12, 2019, there was an increase of diarrhea cases in Banjar Sandan, Bangli Village, Baturiti District, Tabanan. The investigation was conducted to ensure the outbreaks, risk factors and sources of transmission.
Methods: Investigation were conducted through site visit and interview. Laboratory specimens (water and feces samples) were taken and examined at the provincial and district laboratories. Data was presented descriptively by tables, graphs and narratives. Case control design was analyzed by chi-square tests. Variables related to diet and drinking, hand wash before eating behavior, and defecation behavior were explored using a questionnaire
Results: The number of diarrhea cases was 212 people with AR=17,2%, the highest are in women (51.9%) and age group > 45 years, while CFR=0%. Epidemic curve is in the form of common source with the most clinical symptoms of dilute diarrhea (100%), stomachache (92,5%), slimy diarrhea (67,5%), and fever (42,9). Environmental conditions and behavioral factors supporting the transmission of diarrhea include drinking non-boiled water (92.9%), not wash hands before and after eating (97.6%), and after defecation (92.9%). There were 50 people (23,6%) out of 212 people consuming food during traditional events. Although fried pork meat was statistically proven as a risk factor [OR = 7,286, 95% CI (2.505-12.93)], water and feces samples showed positive Escherichia coli.
Conclusions: There has been an outbreak of diarrhea in Banjar Sandan, caused by pathogenic bacteria of Escherichia coli. The transmission is presumed through contaminated water and food due to poor healthy hygiene behavior. Intensive health promotion efforts are needed to change people's behavior.
Keywords: Outbreak, Diarrhea, Escherichia. coli, behavioral factors.

3. **Outbreak Eschericia Coli O157 Associated with Contaminated Cooked Rice – Purworejo, January 2019**

Authors: Leli Rachmawati[1], Sugiarto[2], T. Hidayati[3]
[1]FETP FKKMK UGM; [2]Kulon Progo District Health Office; [3]Faculty of Medical and Health Science, Universitas Muhammadiyah Yogyakarta

Background: On January 10, 2019, the Purworejo District Health Office requested confirmation of 4 suspected food poisoning patients who were hospitalized at Kulon Progo's hospital. Symptoms performed were vomiting, watery diarrhea, malaise, chill and abdominal pain. Suspected source of poisoning was food from *Mitoni* which held at Geparang- Purworejo on January 4, 2019. Outbreak investigations aimed to identify the infection source and recommend preventive measures.
Methods: A case-control study held with 93 cases and 93 controls. Samples were recruited from primary care data, list from owners of *Mitoni* and referral from food recipients. Cases are people who had at least one symptom of diarrhea, nausea, vomiting, chill from 4-9 January, after receiving *Mitoni* foods. Data collected by interviewing respondents and, food handlers, environment observation also conducted. Laboratory test of patients stools used to confirm diagnose. Multivariate analysis used to identify foods associated with illness.
Results: 16 patients hospitalized and one dead. Most of the cases showed symptoms diarrhea (84.9%), joint pain (58%), chill (53.7%), and abdominal pain (49.4%). One hospitalized was a food handler get diarrhea since January 2, 2019. Laboratory results on stools from two patients were positive E. coli O157. The average incubation period was 17 hours (range 1-96 hours). Main risk factor from multivariate analysis was rice (OR=3.25; p=0.002). Rice was cooked several hours before the event with a non-permanent stove located next to the cowshed and then handled by person who got diarrhea.
Conclusions: Food poisoning outbreak in Purworejo was caused by rice contaminated with E. coli O157. Rice can be contaminated by food handlers who had diarrhea before *Mitoni*. We recommend to increasing hygiene of food handlers with public education.
Keywords: Foodborne diseases, E. coli O157, food handling, hygiene

4. **Diarrhea after the earthquake in North Lombok District - West Nusa Tenggara, 2018**

Authors: Michelle A. G. Rampengan[1], N. L. P. Suariyani[1]
[1]FETP Postgraduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana

Background : On August 5, 2018, an earthquake occurred in North Lombok District. Post disaster situations increase the spread of infectious diseases such as diarrhea. Diarrhea is one of the causes of death in post disaster situations. On August 9, 2018, an increase in cases of diarrhea began to occur in North Lombok District. The purpose of this paper is to investigate the incidence of diarrhea in North Lombok District after the earthquake.
Methods : The study used secondary data analysis and literature studies. Secondary data was taken from the daily reports of potential disease outbreaks after the earthquake from August 8, 2018 to August 28, 2018 collected from health centers in North Lombok District.
Results : 1,196 cases of diarrhea were found in North Lombok District within 3 weeks after the earthquake. Most cases of diarrhea in Gangga Health Center were 234 cases. High diarrhea cases in the 0-5 year age group were 400 over cases and in female sex were 604 cases. Risk factors for the incidence of diarrhea after the earthquake, that is overcrowding (close and multiple contacts), insufficient nutrient intake, contaminated water and poor sanitaion condition.
Conclusions : The situation after the earthquake has increased the incidence of diarrhea in affected communities. The 0-5 year age group and female sex are most susceptible to diarrhea in a post-disaster situation. Prevention and control of diarrhea begins with hand washing, with proper handling of water and food, must establish protected access to safe drinking water, provision of adequate clean water, creating good sanitation in the environment and access to primary health care.
Keywords : Disaster, earthquake, infectious diseases, diarrhea, risk factor.

Oral Presentation 9 and 10

Wednesday, August 21, 2019/13.00-14.00

Session 9
Zoonotic disease, HIV-STI
Moderator: Erni Astutik, S.KM, M.Epid

Novie Ariani – FETP UI, Surveillance Sentinel Leptospirosis in Banten Province

Rosita Dwi Jayanti – FETP UGM, Cutaneous Anthrax Outbreak in Karangmojo Sub-district, Gunungkidul District, 2019

Titis F. Djatmikowati – FETP-V, BBVet Maros, Anthrax in South Sulawesi Province, Indonesia 2015-2017

Gaby Gabriela Langi – FETP UGM, Determinants of Stigma and Discrimination against People Living with HIV/AIDS among Health Workers in a Rural Area – Gunungkidul District , 2017

Session 10
Food and Water Borne Diseases 4
Moderator: Putu Suariyani, S.KM, MHlth & Int Dev

Erna Yati Renyaan – FETP UGM, Staphylococcus aureus Outbreak From Rice Boxes In The Misdinar Retreat At A Church In Ngaglik, Sleman District, June 2018

Desak Made Abdi Utami – FETP UNUD, Diarrhea Outbreak in Riang Gede Village, Penebel, Tabanan District, Bali, 2018

Kusnia Wati Rahayu – FETP UGM, Food Poisoning During Match Training Activity of Special Sports Class Between Senior High School 2 Playen, Gunungkidul District and Senior High School 2 Ngaglik, Sleman District, November 2018

Putri Adekayanti – FETP UGM, Food Poisoning Investigation in Purwomartani, Kalasan, Sleman District, December 2018

Session 9 – The Denpasar Ballroom

Topic: Zoonotic disease, HIV-STI

1. Surveillance Sentinel Leptospirosis in Banten Province

Authors: Novie Ariani[1], T.Y.M. Wahyono[2]
[1]FETP Student Universitas Indonesia, [2]Department of Epidemiology, Universitas Indonesia

Background: Banten is one of Leptospirosis endemic province. The results of Riskhus Vektora in 2015 obtained data Leptospira bacteria were found in rodent caught at the survey site. Based on this information, in the year 2017, the Banten province was selected as one of the Sentinel Surveillance Leptospirosis. There is six sentinel location in Serang and Tangerang district.
Methods: The sampling procedure was to the patients in the sentinel Leptospirosis site with Leptospirosis criteria (age ≥ 15 years, duration of fever 3 - 7 days, temperature ≥ 37.5^0C). Patients with Leptospirosis criteria were tested using Leptospirosis Rapid Diagnostic Test (RDT). If the RDT results (+), the patient will be taking blood serum sampling for the Microscopic Agglutination Test (MAT). If the RDT results (-) the patient will be taking whole blood sampling for Polymerase Chain Reaction (PCR) test.
Results: In the year 2017, 48 samples tested, the results: 28 samples were RDT (+). In the year 2018, 118 samples tested, the results: 63 samples were RDT (+) and 6 samples were PCR (+). The results of serovar found were more than ten types of serovar, among others Shermani, Castelionis, Cynopteri, Benjamini, Tarassovi, Australis, Copenhagen, Naam, Bataviae, and Pomona. In several samples was found more than one type serovar.
Conclusion: Patients with Leptospirosis criteria were found more at Hospital site. In the Primary Health Center, the results obtained more are RDT (-), the reverse for results found in the hospital site, more RDT (+). Leptospirosis cases with RDT (+) were found in 27 subdistricts, 9 in Serang district and 18 Tangerang district.
Keywords: Leptospirosis, Surveillance Sentinel

2. Cutaneous Anthrax Outbreak in Karangmojo Sub-district, Gunungkidul District, 2019

Authors: Rosita D. Jayanti[1], K.W. Rahayu[1], S.H. Sukoco[2], C. Indriani[1], R.R. Arisanti[1], R.A. Ahmad[1]
[1]FETP FKKMK UGM; [2] Gunungkidul District Health Office

Background: Gunung Kidul District Health Office was notified of 7 anthrax cases among cattles (all dead) between April 25 – June 27 2019 in Grogol IV Hamlet. Investigation was conducted to identify the possible risk factors for human transmission and control measures.
Methods: Human and animal sector were involved in the investigation and control. Suspected at risk individuals were interviewed. Environmental and laboratory investigation were performed.
Results: 5 suspected cutaneus human anthrax were identified. PCR result from 2 wound samples were negative for *Bacillus anthracis,* and IgG-ELISA were positive in four samples. The attack rate was 6.34% with incubation period of 2-9 days. All cases had contact with the dead cattles of whom 3 individuals lifted the infected dead cows and 1 person chopped the meat. As a response, the district One Health Task Force coordinated the human and animal control intervention through: active surveillance, formaline watering, animals vaccination, dead cattle burial processes, and cementation. Additionally as a preparations for Eid al-Adha festival they further disseminated the animal welfare practices and anthrax alertness among mosques managements; animal inspection among Qurban animals at the animal markets and traders; and animal health certificates publication.
Conclusions: Human cutaneous anthrax was confirmed and direct contact with *Bacillus anthracis* infected animals was found to be main risk factor. One health approach had implemented and strengthening accross-sector communication and coordination related to early anthrax alertness are recommended.
Keywords: Outbreak, cutaneous anthrax, one health, response

3. Anthrax in South Sulawesi Province, Indonesia 2015-2017

Authors: Titis F. Djatmikowati[1], D. Wahyu Yudianingtyas[1], F. Zakariya[2], Haeriah[1], S. Gesha Utami[1]
[1] Diseases Investigation Center Maros, Directorate General Husbandry And Animal Health, Indonesia Agriculture Ministry; [2]Vaterinary Pharmacy Center, Directorate General Husbandry And Animal Health, Indonesia Agriculture Ministry.

Background: South Sulawesi Province is endemic area of anthrax diseases in Indonesia with some human case reported. We determined proportion, describe the distribution of anthrax high risk areas in South Sulawesi Province with geographic mapping and temporal distribution to determine priority villages for anthrax vaccination program purpose.
Methods: We descriptively analyzed using the proportion of anthrax positive, negative and suspect villages in South Sulawesi from passive - active surveillance Maros Disease Investigation Center (DIC) and priority syndrome reports at National Animal Health Information System (iSIKHNAS) 2015- 2017 using percentage, mapping using Quantum Geographic Information System (QGIS) and calculated odds ratios of anthrax incidence in the dry season and rainy season using univariate analysis (X2 table).
Results: The proportion of each positive, negative and suspected villages was 28%, 71% and 2% from 109 village units reported. Anthrax distributed in eight districts: Maros, Gowa, Makassar, Takalar, Bone, Pare-Pare, Sidrap and Pinrang. Spatial distribution results showed that in 2016 Pinrang was newest infected area. The highest anthrax cases occured in August (35.3%) with the probability (OR) of the incidence in the dry season, 3.14 times higher than in the rainy season.
Conclusions: Dry season was factors that associated with the incidence of anthrax in South Sulawesi Province. Control strategies to reduce incidence of anthrax outbreak in South Sulawesi Province, regarding on high risk area of this study, anthrax vaccination should be conducted in July. Every anthrax suspect should be reported to the iSIKHNAS by Animal Health District Officer and followed by laboratory confirmation.
Keywords: anthrax, distribution, iSIKHNAS, South Sulawesi, Indonesia

4. Determinants of Stigma and Discrimination against People Living with HIV/AIDS among Health Workers in a Rural Area – Gunungkidul District , 2017

Authors: Gaby G. Langi[1], I. Praptoraharjo[2], R.A. Ahmad[1]
[1] FETP FKKMK UGM; [2]FKKMK UGM

Background: Stigma and discrimination against people living with HIV/AIDS (PLWHA) in health facilities are one of the key barriers to an effective response to the HIV/AIDS epidemic. Stigma and discrimination among health workers adversely affected the adherence of antiretroviral treatment, access to health services and quality of life of PLWHA. We identified factors associated with stigma and discrimination against PLWHA among health workers in a rural area.
Methods: We conducted a cross-sectional study in a public hospital and 13 public health centres in Gunungkidul District, Yogyakarta, from December 2016 until March 2017. We enrolled 234 health workers determined by stratified random sampling from all employed health workers. The data collection tool was a self-administered questionnaire. We used ordinal logistic regression to explore association between variables.
Results: Of the 234 health workers, 191 (81.62%) had ever encountered PLWHA; 91.88% of 191 expressed at least one form of stigma and discrimination. There was a significant relationship between knowledge of HIV/AIDS (aOR 0.71; 95% CI 0.58-0.87), fear of being infected by HIV (aOR 1.26; 95% CI 1.15-1.39), contact experience with PLWHA (aOR 0.55; 95% CI 0.31-0.97), and types of health workers (paramedical personnel aOR 3.27; 95% CI 1.25-8.53) with stigma and discrimination against PLWHA. Fear of being infected by HIV had the highest z value (z=4.80).
Conclusions: Fear of being infected by HIV was the most powerful factor associated with stigma and discrimination against PLWHA among health workers compared with low knowledge of HIV/AIDS, no contact experience with PLWHA, and being paramedical personnel. Health facilities should provide comprehensive HIV/AIDS-related training to health workers, ensure the availability of standard precaution equipment, and supervise the use of standard precaution among health workers.
Keywords: Social Stigma, HIV Infections, Acquired Immunodeficiency Syndrome, Health Personnel, Risk Factors, Logistic Models

Session 10 – The Gianyar Room

Topic: Food and Water Borne Diseases 4

1. **Staphylococcus aureus Outbreak From Rice Boxes In The Misdinar Retreat At A Church In Ngaglik, Sleman District, June 2018**

Author: Erna Yati Renyaan[1], T. Sriwahyuni[1], T.B Rahayujati[1], I. Dharmawidjaja[2]
[1]FETP FKKMK UGM, [2]Prambanan Hospital, Yogyakarta

Background: On June 26, 2018, a hospital in Yogyakarta reported to the district surveillance officer of Sleman District Health Office about 29 suspected cases food poisoning among people who were attending a misdinar retreat at a church in Ngaglik. The investigation conducted to confirm the outbreak, identify risk factors and recommend control measures.
Methods: A retrospective cohort study. Conducted to explore the risk of poisoning among people who participated in the retreat. A case defined an individual with one or more symptoms of nausea, vomiting, dizziness, abdominal pain, diarrhea on June 25-26, 2018 after consuming rice boxes in misdinar retreat activities at a church Ngaglik Sleman. Active case detection conducted using a structured questionnaire. Interview with food handlers and kitchen observation were also conducted. The food samples were sent to the laboratory.
Results: 60 rice boxes from a restaurant were brought from Semarang. There were 45 cases out of 58 people interviewed (AR 77.6%). 29 people were hospitalized and zero case fatality rate. 80% of cases were female, 78.6% aged <16 years with the main symptom, nausea (91.1%), vomiting (86.7%), and diarrhea (53.3%). The average incubation period was 1 hour 39 minutes. Individuals who ate shredded chicken had the highest risk of getting sick RR= 2.74 (95% CI: 0.532-14.183). The laboratory tests showed that food samples were positive for Staphylococcus aureus. The improper storage of food, the time of serving food too long from processing to consumption is a potential risk.
Conclusions: There has been a food poisoning outbreak in the misdinar retreat at a church in Ngaglik, Sleman District, June 25, 2018, caused by Staphylococcus aureus. The health office need conducts training and supervision of food security for catering services to prevent future outbreaks.
Keywords: Food poisoning, Staphylococcus aureus, Sleman

2. **Diarrhea Outbreak in Riang Gede Village, Penebel, Tabanan District, Bali, 2018**

Authors: Desak M A Utami[1], M Antarina[1,] A A S Sawitri[1], I W T Suryanata[2]
[1]FETP Post Graduate Stady Program of Public Health, Faculty of Medicine, Universitas Udayana; [2]Tabanan Provincial Health Office

Background : On September 22-October 2 2018, there were reported 56 cases of diarrhea in Riang Gede Village,Tabanan, Bali. Investigation was carried out to find the magnitude of problem, transmission and possible causes of outbreaks.
Methods : Tracking documents and field visits was conducted to determine the number of cases of diarrhea in Riang Gede Village and described by person,place and time. Outbreaks risk factors were analyzed by case-control study involving 30 cases and 30 controls. Interviews explored eating behavior defecation and environmental observations including distribution and conditions of clean water supply. The data obtained were analyzed quantitatively and qualitatively.
Results : Attack Rate (AR) for this outbreak was 5,1% in which in male was 4,9% and women was 5,2%. While Attack Rate (AR) in Banjar Darma Kaja was 3,2%, Darma Tengah was 3,5% and Darma Kelod was 1,7%. Epidemic curve showed the common source pattern. The habit of drinking raw water proven statistically as a risk factor for outbreaks (OR=10,71 ; 95%CI : 2,15-53,35 ; p-value : 0,01). Environment observation found that there was a leak of water pipe and shows a same pattern with the distribution of diarrhea cases. Laboratory results from water pipes and water supply in the case's home provide positive for E-Coli. It was suspected that E-Coli contamination originated from a home septic tank.
Conclusion : The habit of drinking raw water is a risk of outbreaks when piped water is contaminated. In addition, health promotion is required not only environmental sanitation supervision but also on the distribution of clean water.
Keywords : Outbreaks, Diarrhea, E-coli, Drinking, Riang Gede Village

3. **Food Poisoning During Match Training Activity of Special Sports Class Between Senior High School 2 Playen, Gunungkidul District and Senior High School 2 Ngaglik, Sleman District, November 2018**

Authors: Kusnia W. Rahayu[1], E. Y. Renyaan[1], S. H. Sukoco[2], R. A. Ahmad[1]
[1] FETP FKKMK; [2]Gunungkidul District Health Office

Background: On November 16, 2018, Gunungkidul District Health Office (DHO) received a report from Sleman DHO about suspected food poisoning at Senior High School 2 Ngaglik, after attending a match training activity of special sports class in Senior High School 2 Playen, Gunungkidul District on November 15, 2018. Investigations conducted to confirm the outbreak, identify risk factors, and implement control measures.
Methods: We did a retrospective cohort study. Cases were people with one or more symptoms of abdominal pain, diarrhea, dizziness, nausea, and vomiting on November 15-16, 2018 after consuming rice boxes during the match training activity. We did interview with a structured questionnaire in both schools and environmental observation in the catering. Data analysis used chi-square test and poisson regression.
Results: Of the 279 people interviewed, we found 211 cases (AR 75.6%). Cases were 55% came from Senior High School 2 Ngaglik, 63% male, 79.6% aged 12-25 years. The main symptoms were 86.3% abdominal pain, 74.4% diarrhea, and 18% dizziness. The average incubation period was 10 hours. Data analysis showed that people who consumed chicken had the highest risk of becoming ill (IRR 9.88, 95% CI 1,094-90,975). There was no food samples and laboratory examination.
Conclusions: Food poisoning has occurred during the match training activity of special sport class between Senior High School 2 Playen and Senior High School 2 Ngaglik. Taking into account the duration of incubation, sign and symptoms reported, one possible cause of the outbreak was *Staphylococcus aureus*. Poor quality of chicken and long process of cooking chicken were the potential risk. Socialization to the catering regarding standardized food processing was conducted to prevent future outbreaks.
Keywords: food poisoning, school, Sleman, Gunungkidul

4. **Food Poisoning Investigation in Purwomartani, Kalasan, Sleman District, December 2018**

Authors: Putri A[1], N. Sabila Adzani[1], I. Dharmawidjaja[2], C. Indriani[1]
[1]FETP FKKMK UGM; [2]Prambanan Hospital, Yogyakarta

Background: On December 14th, 2018 the Kalasan Public Health Center surveillance officer reported 6 suspected food poisoning cases that occurred 4th day before, at Citra Ringin Mas Housing Purwomartani, after consuming rice box from a household gathering on December 9th, 2018. This study aimed to identify sources, modes of transmission and make recommendations to prevent the occurrence of the same event.
Methods: A retrospective cohort study was conducted. Active case finding with structured questionnaire was used to data collection. Environmental observations and interview with food handler were carried out to observe cleanliness, sanitation of food handlers, cooking procedures and food storage. There were no food samples to confirm the agent due to late reporting. Bivariate analysis was used Chi square test
Results: There were 72 populations at risk, 12 people suffered from food poisoning with dominant symptoms of nausea (75%), vomiting (75%) accompanied by diarrhea (33,3%). Incubation period range was 1.75 to 9 hours with average 4.19 hours. Grilled chicken was suspected to be the cause of food poisoning based on the results of the attack rate calculation (AR = 29,3%) and statistical tests (*p-value* = 0,001; Relative Risk (RR) = 2,07; 95% CI= 1,592-2,687). *Staphylococcus aureus* was suspected as the causative agent of outbreaks that contaminate grilled chicken. Suspected cause of food handlers did not wash their hand with soap when processing food and storing food at room temperature for a long time.
Conclusion: Food poisoning outbreak occurred in Citra Ringin Mas Housing Purwomartani likely cause by consuming grilled chicken that has been contaminated with *staphylococcus aureus*. This event can be prevented by implement the principle of food safety when processing and storage food.
Keywords: food poisoning, grilled chicken, *Staphylococcus aureus*, food handling, room temperature

Oral Presentation 11 and 12

Wednesday, August 21, 2019/14.00-15.00

Session 11
Food and Water Borne Diseases 5
Moderator: Dr. dr. A.A. Sagung Sawitri, MPH

Anasyia Nurwitasari – FETP UNAIR, Hepatitis A Outbreak Investigation at Pacitan and Trenggalek Districts East Java Province in 2019

Abdullah – FETP UGM, An Outbreak of Salmonella sp. in Rice Boxes served during Ramadhan Iftar - Sleman District, Indonesia, 2018

Ima Ananda – FETP UI, Epidemiological Investigation of An Hepatitis A Outbreak at Islamic Boarding School in Cirebon Regency, 2018

I Gede Kresnananda Wisesa – FETP UNUD, Food Poisioning Outbreak in STP Nusa Dua Kuta Selatan, Badung Regency, Bali 2019

Session 12
Vaccine Preventable Disease and other
Moderator: dr. Wihardi Triman, MQIH

Rido Illahi Ayef Eka Putra – FETP UGM, Lesson Learned Initial EVM (Effective Vaccine Management) Evaluation at Puskesmas in Boyolali District 2018

Astari Marullyta – FETP Intermediate, Evaluation of CBMS in Banyuwangi District, 2018

Faridatun Khasanah – FETP UGM, Diarrhea Outbreak in Bonjor Village Temanggung District Central Java, 2018

Ni Wayan Deisy Arisanti – FETP UNHAS, Investigation of Rubella outbreak In subdistrict Mananggu, Gorontalo province 2018

Session 11 – The Denpasar Ballroom

Topic: Food and Water Borne Diseases 5

1. **Hepatitis A Outbreak Investigation at Pacitan and Trenggalek Districts East Java Province in 2019**
Authors: Anasyia Nurwitasari[1], M. Maulidin[1], Y.B. Bebengu[1],L. Uddin[1,] A.C. Hidajah[2].
[1]FETP Student Universitas Airlangga; [2]Department of Epidemiology, Universitas Airlangga

Background: Health Office of Pacitan reported an Hepatitis A outbreak with 176 cases and CFR 0%. The case in Pacitan is suspected to have relation with case in Trenggalek because of its bordering location. The investigation aimed to find out additional cases, describe events according to epidemiological variables, and identify risk factors associated with Hepatitis A outbreaks.
Methods: The study design was case-control. Samples were taken randomly with case and control ratio of 1:2. The investigation was carried out on 27 June 2019-6 July 2019.
Results: Until 6 July 2019, there were 1085 cases in Pacitan. Laboratory results from 86 specimens were confirmed 84 positive HAV. Meanwhile, there were 187 cases in Trenggalek, laboratory results from 26 specimens were confirmed 22 positive HAV. Hepatitis A patients were dominated by male with the highest proportion of age group 25-44 years. Index case in Pacitan occured on 2 May 2019 while in Trenggalek it occured on 8 May 2019. Epidemic curve was common source. Significant risk factors were travel contact history (p value 0.000; *OR*: 40.61; 95% *CI* 5.19-317.25), home contact (p value 0.000; *OR*: 3.94; 95% *CI* 2-7.78), attending celebration (p value 0.012; OR: 2.33; 95% CI 1.21-4.50), and attending Eid visit (p value 0.001; *OR*: 3.05; 95% *CI* 1.54 -6.04).
Conclusions: Hepatitis A outbreaks in Pacitan and Trenggalek showed transmission patterns of common source. Risk factors are travel contact history, home contact and attending Eid visit. Control and prevention of Hepatitis A outbreaks is recommended by doing clean and healthy lifestyle.
Keywords: Outbreak, Hepatitis A, Pacitan, Trenggalek, Clean and Healthy Lifestyle

2. **An Outbreak of Salmonella sp. in Rice Boxes served during Ramadhan Iftar - Sleman District, Indonesia, 2018**
Authors: Abdullah [1], Nurfitri Sakina[1],Trisno Agung Wibowo [1], Elisabeth Cucuk Prasetyaningsih[2]
[1]FETP FKKMK UGM; [2]Banjarnegara District Health Office

Background: On June 2, 2018, a hospital reported to Sleman District Health Office, 43 patients suspected food poisoning after consuming homemade rice boxes during Ramadhan iftar in Jogotirto Village, Sleman District. The investigation was conducted to confirm the outbreak, determine source and transmission mode, recommend control and preventive measures.
Methods: We conducted a retrospective cohort study. Active case finding was done among villagers who received rice boxes. Case defined as any person who consumed homemade rice box served for iftar at the X Mosque, Jogotirto village, Sleman on June 1, 2018 and showed at least 2 of the following symptoms: fever, nausea, vomiting, and diarrhea. Environmental observation and interviewing food handler were also done. Food, vomit, feces and water samples were collected and sent to Yogyakarta Health Laboratory
Results: Out of 327 population at risk, 161 became ill (AR=49,2%). As many as 62% of persons were hospitalized but zero case fatality rate. 53,4% of cases were female,. Main symptoms were diarrhea (74.5%), fever (73.3%), dizziness (71.4%) and nausea (66,5%). Incubation periods ranged from 1-57 hours (average=16 hours). Statistical analysis showed the highest risk ratio (RR) in 'balado eggs' (RR=8.1; 95%CI=5.213-12,559). *Salmonella sp.* were found in food and 2 faecal samples. Potential contaminants were food processing located close to a chicken shed, inadequate of cooking eggs, and the use of the same cooking utensils for five different dishes
Conclusions: Based on epidemiological finding and laboratory finding, Salmonella outbreak linked to homemade rice boxes occurred on June 1, 2018 at Jogotirto village Sleman District. Education of the food handler on safe eggs processing was done by FETP trainees as a preventive measure
Keywords: *Salmonella* outbreak, Iftar, Cohort Studies

3. **Epidemiological Investigation of An Hepatitis A Outbreak at Islamic Boarding School in Cirebon Regency, 2018**

Authors: Ima Ananda[1], S. Syarif[2], A. Nurlina[3]
[1] FETP Student Universitas Indonesia; [2]Department of Epidemiology, Faculty of Public Health, Universitas Indonesia;[3]Cirebon District Health Office

Background: Hepatitis A outbreak at X Islamic Boarding School in January 2018 was the first Hepatitis A outbreak in Cirebon Regency. This study aimed to identify risk factors of hepatitis A outbreak and formulate recommendation.
Methods: This investigation used a case-control design with 30 cases and 53 controls. Cases are students of the boarding school with typical clinical symptoms of Hepatitis A, namely jaundice skin and eyes and thick colored urine like tea from December 2017 to January 2018. Controls are students of the boarding school who present on January 16, 2018, and did not experience a history of jaundice skin and eyes and thick colored urine like tea before January 16, 2018. Personal hygiene behaviors was gained directly from the observation and interview.
Results: We identified age, the habit of washing utensils not using soap, eating habits using hands, and the habit of using shared eating utensils were variables related to the incidence of hepatitis A. Logistic regression tests obtained two variables as risk factors for Hepatitis A outbreak, namely age (OR = 4.1032, 95% CI = 1.2929-13.0223, p = 0.017) and the habit of washing utensils not using soap (OR = 16.8741, 95% CI = 4.0917- 69,5882, p = 0,000).
Conclusions: This study concluded that unhealthy and unhygienic behavior were risk factors for the occurrence of hepatitis A at X Islamic Boarding School– Cirebon Regency. Cirebon Regency Health Office is advised to provide education about hepatitis A and clean and healthy living behavior for students and boarding school managers, increasing inspection intensity and improving boarding schools environmental sanitation.
Keywords: outbreak, hepatitis A, the habit of washing utensils not using soap, personal hygiene

4. **Food Poisioning Outbreak in STP Nusa Dua Kuta Selatan, Badung Regency, Bali 2019**

Authors: I.G.K.Wisesa[1], I.M. Arta[1] , I.W.S.Aradea[2], P. Cintya[1]
[1]FETP Post Graduate Stady Program of Public Health, Faculty of Medicine, Universitas Udayana; [2]Bali Province Health Office

Background : On 18 of March 2019, public health centre of Kuta Selatan reported that there has been an outbreak of food poisoning with 10 case people who suffer from symptoms such as headeache, nausea, and vomiting. They had simptoms after consuming food from food stall which located nearby STP Nusa Dua. Epidemiology investigation must been conducted to find out the magnitude of the problem, source and transmission.
Methods : Observational analytic study (*case control study*) was carried out to analyze a risk factor of the food poisoning. Sample (21 people) which consist of 10 cases and 11 controls. Case was people who had a symptoms after consuming food from food stall, while control was people who had no symptom and consumed food from food stall.
Results : Most of the case was male (60%), and majority of the symptoms were nausea (30%), Vomiting (60%), abdominal pain (60%), dearrhea (50%), and fever (50%), based on incubation (8-23 hour) shown that Escheria coli as a suspected cause of the outbreak. (OR=15,00) (95 CI 1,34-167,63).
Conclusions : There has been food poisioning outbreak in STP Nusa Dua which with food contaminated with E.Coli as a cause of outbreak. Supervision and improvement of sanitation is needed to prevent the future outbreak.
Keywords : Outbreak, Food Poisoning, *Escheria Coli*

Session 12 – The Gianyar Room

Topic: Vaccine Preventable Disease and other

1. **Lesson Learned Initial EVM (Effective Vaccine Management) Evaluation at Puskesmas in Boyolali District 2018**

Authors: Rido Illahi Ayef Eka Putra[1], T.T. Kuncoro[2], D. Pramono[1]
[1]FETP FKKMK UGM; [2]Boyolali District Health Office

Background: Since 2012, WHO recommend the EVM assessment to understand the vaccine quality and cold chain management program. Boyolali has met 90% fully immunized children in 2018. However, measles cases still found on children 2018. This study aims to evaluate the distribution and stock vaccine management using the EVM tools in Public Health Center (PHC) at Boyolali district in 2018.
Methods: This is the descriptive observational study to the 15 randomly selected PHCs in Boyolali. Information was obtained through interviewing health officer using EVM WHO tools. Beside that we also use secondary data from both Boyolali District Health Office and PHCs.
Results: There were 6 PHCs (40%) that have not implemented vaccine distribution in accordance with WHO guideline due to limited knowledge of the immunization officer related to the procedure of vaccine storage in cold-boxes and vaccine carriers. All PHCs do not have SOPs for arranging vaccines and cold-pack in vaccine carriers during cold chain management frequently harm the vaccine quality for children. All PHCs also have score less than 80% on vaccine stock management, this would give disadvantages for evaluating and monitoring vaccine control program in PHCs. In addition, manual recording system and incomplete record would be miscalculation information for arranging vaccine planning program for Boyolali District Health Office.
Conclusions: The distribution and vaccine stock management in selected PHC of Boyolali still under the target. Refreshing training on the cold chain management to the immunization officer in PHC level is needed. Close monitoring of implementation the SOP and shifting the recording system from manual to computerize will support the improvement the quality of vaccine stock management.
Keywords: EVM, vaccine stock management, distribution, vaccine management.

2. **Evaluation of CBMS System in Banyuwangi District, 2018**

Authors: Astari Marullyta[1], A.Y. Setiawan[2]
[1]FETP-Intermediate Trainee, Banyuwangi District Health Office; [2]Field Supervisor, Jember District Health Office

Background: District Health Office (DHO) Banyuwangi implementing Case-based Measles Surveillance (CBMS) as one of measles control strategies. CBMS evaluation was conducted to understand the performance of CBMS and to provide recommendations to improve CBMS in Banyuwangi district.
Methods: Evaluation was performed in May 2019 using USCDC public health surveillance evaluation guidelines. CBMS data was analyzed to describe the performance of CBMS based on national standard. Simplicity, timeliness, data quality and acceptability attributes were evaluated.
Results: Total 14 suspected measles cases reported in 2018 and 0 of them positive, 6 is negative, and 8 is compatible for measles/rubella. The performance indicators of CBMS were as follows: Non measles rate is 0.37 per 100.000 population, specimen collection rate 78.6%, cases with adequate specimen is 27.3%. Health center completeness of reports 95.6%, and hospital active surveillance completeness 14.2%. Missing values were found in reporting C1 form. Based on attributes, the surveillance system is simplicity (97.2%), timeliness (82.2%), and acceptability (95.6%) by surveillance officers, while quality data is low (45.5%).
Conclusions: In 2018, performance of Non-measles rate, hospital based reports, and collection of adequate specimen does not meet minimum standard might resulted un-ability of DHO to detect measles cases promptly. CBMS considered simple, timely, and high acceptability by Surveillance officers. Limitation verification to hospital medical records was not done in this evaluation. DHO should advocacy and regular meeting with hospital. Surveillance officers should cross-check and verify CBMS data with EWARS dan PHC management information systems. DHO should send feedback to Laboratory if report not received.
Keywords: Evaluation, Measles, Surveillance, System

3. Diarrhea Outbreak in Bonjor Village Temanggung District Central Java, 2018

Authors: Faridatun Khasanah[1], Wafiyyah R Wiariyanti[1], Khabib Mualim[2], Dibyo Pramono[1]
[1]FETP FKKMK UGM; [2]Temanggung District Health Office

Background: On July 16, 2018, Tretep Primary Health Center (PHC) reported to Temanggung District Health Office (DHO) that 24 residents in Bonjor village had diarrhea after Hajj ceremony a day before. The investigation was conducted to confirm the outbreak and risk factors to identify control measure.
Methods: Design study used was case-control study. The case was defined as a person with a condition of increased defecation three or more times with liquid consistency within 24 hours since 12 July 2018 and live at Bonjor village. Interviews were done using standardized questioner. Observation conducted to environment and water sources. Food and water samples were sent to the laboratory.
Results: 114 people were interviewed and 38 cases identified (AR=33,3%). 57,9% of cases were female and 44,4% in 26-45 years age group. Two causes of the outbreak were food and water. Statistical results on eating did not indicate the presence of related food types. Kalitengah Hamlet people had the highest OR of 2.88 (95% CI=1,84-4,492). Laboratory results showed that food and water samples were contaminated by *Escherichia coli*. Two water sources that are used in the Kalitngah hamlet contaminated by *Escherichia coli*. Poor environment, dry season, and lack of clean water sources caused by damaged water pumping machines were risk factors contamination of *Escherichia coli*.
Conclusions: There was outbreak diarrhea caused by *Escherichia coli* in Bonjor Village on 15-22 July 2018. We recommended PHC to motivate residents to have a standard water reservoir as a supply of clean water and reduce contamination.
Keyword: *Escherichia coli*, contamination, standard water reservoir

4. Investigation of Rubella outbreak In subdistrict Mananggu, Gorontalo province 2018

Authors: Ni Wayan Deisy Arisanti[1], Ansariadi[1], Indra Dwinata[1] Hariyati Potutu[2]
[1]FETP Universitas Hasanuddin; [2]South Sulawesi Province Health Office

Background : Rubella, a vaccine preventable disease, is commonly occur among children and young adults. From February to April 2018 local health center reported 26 cases number of suspected measles. This study aims to investigate rubella outbreaks in Gorontalo Province, Indonesia. After the laboratory examination and confirmation results obtained 9 positive cases of rubella.
Methods : This research use case control study design to know risk factor, source and mode of transmission. Cases are people with clinical symptoms of heat and rash with one or more symptoms such as cough, runny nose, conjunctivitis and shortness of breath. Controls are family / neighbors and friends in school from cases that have no symptoms. Total sample 1: 2 (26 cases and 53 controls). The investigation was conducted by interview and observation. Data were analyzed using Chi Square test.
Results : . The laboratory examination and confirmation results obtained 9 positive cases of rubella. There were 26 cases identified and age ranged from 8 months to 39 years. 100% have symptoms like fever, rash accompanied by cough, runny nose, conjunctivitis. A total of 7.7% has shortness of breath. Attack Rate of rubella outbreak was 17.18 / 10000. The majority of cases (50.0%) age 12-24 years and most of the cases were women (65.3%). Case fatality rate of the rubella outbreak was 3.84. Bivariate analysis showed statistically significant correlation between immunization status with extraordinary incidence rubella, OR =7.5 (95% CI 2532-3101, P = 0.000) where people who are not immunized against rubella 7.5 times higher risk compared to those immunized.
Conclusions : immunization status 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, Gorontalo

POSTER PRESENTATIONS

POSTER ABSTRACT LISTING

Code	Name	Title
P01	Julianti Jeanette Sabono FETP UGM	Integrated Community-Based Prevention of Non Communicable Diseases: Program Evaluation, Magelang City 2018
P02	Ni Made Setiawati FETP UNUD	Food Poisoning at Traditional Ceremonial In Ungasan Village, South Kuta District, Badung Regency
P03	Juniarty Naim FETP UNHAS	Rapid health assessment of flash floods disaster in Jayapura Regency 2019
P04	M. Wildan Hapiz FETP UNUD	Food poisoning outberak in Yangapi Village,Tembuku Sub district, Bangli District,Bali Province 2019
P05	Febriyanti FETP UNAIR	Implementation of HIV Surveilance Systems in Working Areas Blitar District Health Office in 2018
P06	Eka Wahyuni FETP UNUD	Implementation of Dengue Hemorrhagic Fever Surveillance System Based On First-Level Health Facility, Tabanan District 2018
P07	Anasyia Nurwitasari FETP UNAIR	Problem Analysis of Immunization in Diphtheria Prevention at the Bangkalan District of East Java, 2019
P08	Muhammad Maulidin FETP UNAIR	Problem Analysis Of Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome In Jember District 2018
P09	Riris Prastina FETP Intermediate	Evaluation of CBMS System in Situbondo District, 2018
P10	Kuuni Ulfah Naila El Muna FETP UI	Salmonella spp in Telur Omega-3 Attend to Cause Food Poisoning-Bogor City 2018
P11	Harni Utari Nennong FETP UNAIR	Analysis of Post Disaster Health Problem in Palu, Sigi and Donggala 2018
P12	Antonius Adolf Gebang FETP UGM	Investigation Chikungunya Outbreak in Argosari Village, Bantul District May 2018
P13	Frans Abidondifu FETP UNAIR	Analysis of Health Problems in the Stunting in Magetan District, East Jawa, 2019
P14	Dwi Sora Yullyana FETP UI	Epidemiological Investigation of Hepatitis A Outbreak at Elementary School in Depok City, 2019
P15	Isti Handayani FETP UNAIR	Analysis of the Tuberculosis Findings in the Tulungagung Regency of East Java In 2018

1. **Integrated Community-Based Prevention of Non Communicable Diseases: Program Evaluation, Magelang City 2018**

Authors: Julianti Jeanette Sabono[1], Adi Isworo[2], Riris Andono Ahmad[1]
[1]FETP FKKMK UGM, [2]Politeknik Kesehatan Kemenkes, Semarang

Background: Integrated community-based prevention of non-communicable diseases (Posbindu-PTM) is one of the non-communicable disease controled strategies in Indonesia. There were 12 Posbindu who runs, among 17 Posbindu in urban villages, Magelang City. However, program evaluation has never been carried out since it was formed. Therefore, evaluation of posbindu-PTM activities in Magelang was necessary to describe program implementation, to find out the barriers and achievements of the program, and provide recommendations for future improvements.
Methods: Descriptive study design by assessing input, process, and output. Subjects were 5 PHC officers and 17 posbindu coordinators. Data was colleceted by interviews using questionnaires in July-November 2018.
Results: 100% Posbindu had limited resources in fund, cadres, and facilities. One Posbindu does not have an organization. Lack of communication between PHC officers and cadres. Risk factors assessment through interviews, health checks was not optimal in all Posbindu. Furthermore, recording and reporting does not carry out by one posbindu meanwhile 92% did manually reporting. 100% of posbindu activities coverage was very low.
Conclusion: There were several barriers in the input, process, and output of Posbindu-PTM implementation in Magelang City. Training, socialization, procurement of equipment, programs integration, and good communication between PHC and cadres can be carried out to increased program coverage.
Key word: program evaluation, prevention, NCDs, risk factor

2. **Food Poisoning at Traditional Ceremonial In Ungasan Village, South Kuta District, Badung Regency**

Authors: N M Setiawati[1], M Windyningtyas[1], NLP Suariyani[2], IGAA Naya[3]
[1]FETP Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; [2]MIKM Universitas Udayana; [3]Badung District Health Office

Background: 27th October 2018, Bali Jimbaran Hospital reported that 19 people had symptoms of food poisoning after attending a thanksgiving in Ungasan Village.17 Of the 19 people,were hospitalized and 2 were outpatient. Therefore, it is important to conduct further epidemiological investigation in order to find out the source and cause of the incident.
Methods :This investigation is carried out through interview, study document, direct observation and laboratory examination. The risk factor investigation of the transmition is carried out with case control design with 19 cases and 19 control of 40 people who attended. Case were who attend, consuming the dish and experience one of the symptoms diarrhea, nausea, fever, while control is a guest who attend, consuming the dish but didn't experience any symptoms as occured on the cases. Risk factor were analyzed by logistic regression.
Results :The attack rate of poisoning outbreak is 47.5%, hingher in men (51,14%) and aged around 26-45 years (51,81%). It is common source outbreak which is from the same source with incubation time around 4-25 hour. The laboratory examination of vomit sample find positive Escheria coli and found positive containing Entamoeba histolytika on the feces. Symptoms and incubation period it is leading into escheriacoli as the causes of the food poisining. The risk factors of outbreaks are kopyor ice (OAR:10.39; 95% CI: 1.27-84.90.) and dawet ice (AOR: 13.22 95% CI: 2.01-86.59)
Conclusion: There has been a food poisoning outbreak in Ungasan Village with the causes of E.coli which found in kopyor ice and dawet ice. It is necessary to increasing health promotion specifically for food security include personal hygiene food handlers to the community.
Keywords: Food poisoning, investigation, Escheria Coli

3. **Rapid health assessment of flash floods disaster in Jayapura Regency 2019**

Authors: Juniarty Naim[1], A. Khaer[2], T. Supriyati[3]
[1]FETP Student Universitas Hasanuddin, [2]Department of Environmental Health, Makassar Health Polytechnic, [3]Center for Makassar Regional Crisis Response

Background: Jayapura regency is one of the region in the province of Papua. On March 16, 2019 there have been flash floods and landslides in several districts in the region. To get fast and accurate data on health impacts arising from the disaster as a basis for disaster management planning, the Makassar Regional Crisis Mitigation Center together with FETP students conducted a Rapid Health Assessment (RHA) on March 18-22, 2019.
Methods: RHA is done by conducting field observations, interviews and secondary data collection from refugee camps and disaster-affected health facilities (Hospitals and Health Centers).
Results: Affected victims were 11,725 people spread across 24 refugee camps, 104 people died, 93 people were declared missing, 840 people were lightly injured, and 55 people were seriously injured. A number of health facilities (1 hospital and 1 health center) are severely damaged and cannot be used. There are 429 health workers in charge, consisting of expert doctors, general practitioners, nurses, midwives, pharmacyst, nutritionionist, sanitarian, health analysts, health promotor, epidemiologists, health administrator and evacuation teams.
Conclusion: The number of health personnel on duty has not been in accordance with the needs of evacuation posts, including the lack of surveillance staff to carry out data collection and recording. The sources of drinking water and clean water are very lacking, most rely on rainwater storage. The number of latrines is very lacking, causing some refugees to find defecation in any place. Therefore, it is necessary to seek additional health workers immediately, efforts to provide clean water and latrines to prevent transmission of diseases due to poor hygiene and sanitation.
Keywords: Rapid Health Assessment, Disaster, observation, secondary data

4. **Food poisoning outberak in Yangapi Village,Tembuku Sub district, Bangli District,Bali Province 2019**

Authors: Muhammad W Hapiz[1], IGK Wisesa[1,] P Kardiwinata[1], IK Subrata[2]
[1]FETP Post Graduate Study Program of Public Health, Faculty of Medicine, Universitas Udayana; [2]Bali Province Health Office

Background: At 11 of March 2019 around 18.00 pm, there was a suspect of food poisoning outbreak of wrap rice in wedding party in Yangapi village Tembuku in Bangli. An epidemiology investigation need to be done to make sure of the outbreak, cause, and their risk factor of the outbreak.
Methods: An epidemiology investigation was conducted with a case control design in which 18 cases and 70 controls. Case was people who consume the wrap rice and had the symptoms like nausea, throw up, headache, and diarrhea. Control was people who consume the wrap rice but didn't feel any kind of symptoms. Data collection was done by interview, food sampling and vomit specimens were analyzed in laboratory of Bali Province.
Results: The clinical symptoms of 18 cases was headache (100%), vomit (100%), limp (100%), diarrhea (16,66%) and other symptoms (5,55%). Noodle in wrap rice be came a risk factor of the outbreak (OR=5.659; 95% CI=1,207 – 26,527), with attack rate (AR)=4,50%.the laboratory result showed positive of Esherichia coli in the vomit specimens, however it showed negative result on the food. Food processing and food storage were done in the open area.
Conclusion: There has been a food poisoning outbreak that caused by Escherhiacoli which noodle as a risk factor. The transmission is happen as a common source of the transmission which is bay consume food at the same time, short incubation periode show there are a contamination of bacteria which produce a toxin. Food safety including processing, storage, and sanitation of the environmental must be increased for food handler to prevent the outbreak.
Keywords: Outbreaks, Food poisoning, risk factor, Esherichia coli

5. Implementation of HIV Surveilance Systems in Working Areas Blitar District Health Office in 2018

Authors: Febriyanti[1], Atik C. Hidajah[1], A. Nugroho[2]
[1]FETP Universitas Airlangga; [2]East Java Province Health Office

Background: Blitar is the region with the highest fifteen HIV cases from 38 regencies/cities in East Java with 142 cases in 2018. The high number of HIV cases and the easy of spreading cases requires prevention efforts. One of them is by conducting surveillance to provide epidemiological information and recommendations in decision making for planning and corrective actions. The purpose of this study was to evaluate the implementation of the HIV surveillance system in the working area of the Blitar District Health Office in 2018.
Methods: This research is a descriptive qualitative study with an evaluation study design. The evaluation process was carried out in accordance with the guidelines of the Centers for Disease Control and Prevention (CDC) regarding evaluation of surveillance systems based on attributes (*simplicity, flexibility, acceptability, representativeness, timeliness, data quality and stability*). This activity was held in May - June 2018 in 15 Puskesmas in Blitar District. The technique of data collection is done by interviewing officers holding HIV-AIDS programs at the District Health Office and Puskesmas.
Results: *Simplicity:* The holders of HIV-AIDS programs in Puskesmas vocation Nursing education with a total of 8 people (53.4%) and the lowest is the Health Nursing School which is 1 person (6.7%). Data collection is fairly simple because it is done during service by filling out counseling and test forms. *Flexibility*: there are no changes in the implementation of surveillance. *Acceptability:* the participation of health workers and the participation of other agencies in conducting surveillance. *Representativeness*: Data reported is accurate because it uses the HIV-AIDS information system. *Timeliness:* the accuracy of the report collection is still lacking because there are 10 Puskesmas (66.7%) of the 15 Puskesmas that are late. *Data Quality:* data quality is fairly good because every 3 months data validation is always done. The analysis process was only carried out at the Health Office level, Puskesmas does not conduct analysis. *Stability:* there is still interference with the computer system even though data input and data processing do not require a long time.
Conclusions: The HIV surveillance system in Blitar District can be said to be simple, acceptable and representative even though in timeliness and stability the data is still lacking. So that improvements are needed in terms of improving officers epidemiological abilities especially surveillance and the timeliness of report collection.
Keywords: Surveillance, HIV, Blitar, Implementation, Attributes

6. Implementation of Dengue Hemorrhagic Fever Surveillance System Based On First-Level Health Facility, Tabanan District 2018

Authors: Eka Wahyuni[1], Putu Suariyani[1,2], Wayan Triana[1,3]
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Background: The Evaluating implementation of the DHF surveillance system is important, to see if anything is missing in the surveillance system that has been implemented. The results of the evaluation are based on the results of interviews with 13 DHF program holders it was found that 61.53% of officers who have more than three tasks. 53.84% of officers who have received training related to DHF surveillance and 53.84% officers who can show ownership Standard Operating Procedures (SOP) for epidemiology investigations. Based on the results of the data above the surveillance attributes that want to be prioritized are Flexibility in the ownership of SOP for DHF Epidemiology investigation.
Methods: Using the *pretest-posttest* by means of intervention provides an example of making Standard Operating Procedure (SOP) on one the job training, which was conducted on 5 officers holding DHF programs in 5 health centers.
Results: After the intervention was carried out where 5 officers who previously could not show that they had SOP for DHF Epidemiology Investigations during evaluation, after the intervention they can show ownership of the SOP of the DHF Epidemiology Investigation in accordance with the given. The SOP for Epidemiology dengue investigations in each health center that is intervened is different because, Preparation of SOP DBD adjust Epidemiology investigation resources available in each health center.
Conclusion: Based on interviews with DHF program holders, regarding the procedures for conducting Epidemiology investigations of DHF in SOP recommended when implementing some officers, the procedure is clearer and easier to implement.
Keywords: Surveillance, Dengue Hemorrhagic Fever (DHF), Standard Operating Procedure (SOP), Epidemiology

7. **Problem Analysis of Immunization in Diphtheria Prevention at the Bangkalan District of East Java, 2019**

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Background: Diphtheria in Bangkalan District was the third highest in East Java. The highest cases of diphtheria during the last 5 years occurred in 2018. Until the end of January 2019, there have been 4 times diphtheria outbreaks which 2 cases positive toxigenic laboratory confirmation. The aim of the study was conducted to find out the priority and root cause immunization problem and used in planning and implementing diphtheria control programs appropriately.
Methods: This study was a descriptive observational study conducted at the Bangkalan District Health Office in January 2019. Data were collected from the Bangkalan District Health Profile, surveillance reports, epidemiological investigations reports, and discussion with staf used Nominal Group Technique method. Determination of priority immunization problems using the CARL method based on criteria of Capability, Accessibility, Readiness, Leverage. The root cause of problem was determined using fishbone method.
Results: Complete basic and DPT Booster immunization coverage for the past 3 years has not met the target and was unevenly distributed as a top priority immunization problem in Bangkalan District. Based on the epidemiological investigations of diphtheria outbreaks in 2018, 95.4% of cases did not get DPT immunization during infancy. The coverage of the DPT booster in 2018 was 66.4%. The root cause of priority problem were the village coordinator of immunization were not good at collecting data about the number of targets actively and did not carry out counseling before immunization. Training immunization coordinator at the puskesmas, village, or private services level was still limited.
Conclusion: Strengthening the role of the village coordinator of immunization by involving others sector, and establish a community empowerment program such as My Home My Village is necessary.
Keywords: diphtheria, immunization, DPT, immunizations coordinator

8. **Problem Analysis Of Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome In Jember District 2018**

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Background: Problem analysis is the initial part of a health program planning to determine the problems according to the facts. In 2016, number of HIV/AIDS new cases in Jember District was 566 cases and in 2017 it increased to 637 cases, though in 2018 it decreased to 506 cases. The aim of this study was to analyze the problem priority of HIV/AIDS in Jember District on 2018.
Methods: An observational descriptive study was conducted in Jember District Health Office on January 2019. The data collected were demographic aspect, health status, morbidity, mortality, and nutritional status from the Health Profile of Jember District in 2016-2018 and interviews with officers. Determination of problem priority used the criteria of Urgency, Seriousness, and Growth (USG) which was conducted to 15 respondents. the cause of problem was analyzed using Ishikawa method.
Results: According to the USG method, HIV/AIDS was in the second order with a score of 189 and the finding of HIV cases which has not been optimum was chosen as the main problem priority. The number of AIDS related deaths had fluctuated and there were 73 cases in 2017. HIV/AIDS cases mostly found in men and at the age range of 20-49 years. Based on the Ishikawa method, the root of the problem was the lack of public knowledge about HIV/AIDS and the lack of public awareness to carry out HIV testing.
Conclusion: The finding of HIV cases which has not been optimum was the main problem priority. It is necessary to strengthen the cross-program and cross-sector collaboration by making independent socialization in the surrounding environment and maximizing the role of health cadres and peer educators to educate about HIV/AIDS to reduce stigma and discrimination.
Keywords: HIV/AIDS, Urgency, Seriousness, Growth, Ishikawa

9. Evaluation of CBMS System in Situbondo District, 2018

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Background: The number of measles cases reported in Situbondo District decreased from 86 cases in 2017 to 22 cases in 2018. Compared to 2017, where ten outbreaks were reported, in 2018 there were no outbreak reports. Based on review of CBMS report in 2017, there were significant difference number of suspected cases between C1 (86 suspected cases) and W2 (175 suspected cases). CBMS never been evaluated before. This study aimed to understand the performance of CBMS and recommend improvement.
Methods: This evaluation conducted in May-June 2019 by interviewing 17 surveillance officers of Public Health Center (PHC) in Situbondo District. The performance and implementation of the system is evaluated based on the Indonesian Ministry of Health CBMS guidelines. We reviewed CBMS report from 2017-June 2019. Descriptive analysis was done to analyze measles data. Surveillance attributes measured were timeliness, completeness, simplicity, sensitivity, and stability.
Results: All surveillance officers at the PHC carry out multiple tasks and have never attended surveillance training. The performance of CBMS indicators showed Non measles rate is 0.4 per 100.000 population, specimen collection rate 72.7%, cases with adequate specimen is 50%. After reviewed the CBMS report and EWARS in 2018, we found differences in the number of reported cases in C1 and W2 at three Public Health Center (PHC). Based on attributes were Timeliness C1 (52.9%) and W2 (91,2), Completeness C1 and W2 (100%), Simplicity (89%), Sensitivity (9,1%), and Stability (22%).
Conclusions: Performance of CBMS in Situbondo District was not meet the national standards. The timeliness of C1 report and stability was low. We recommend to collect specimens from suspected cases, and measles data validation meetings should be conducted regularly by Situbondo DHO.
Keywords: completeness, evaluation, measles, surveillance, timeliness

10. Salmonella spp in Telur Omega-3 Attend to Cause Food Poisoning-Bogor City 2018

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Background: On 21th December 2018, due to report from epidemiological investigation from health center located in Bogor city, Indonesia. Notified, there was food poisoning attacked 31 people who attended traditional culture event called “Hajatan 4 Bulanan”. Further investigation performed to identify source of intoxication, cut the transmission chains and recommend further action to health officer.
Methods: This investigation used cohort design. Fifty five people who attended and ate at least one kind of foods were interviewed. Investigators also asked about food storage and processing, to identify critical point using HACCP. Cases defined as attendance who experienced diarrhea, abdominal cramps, headache, nausea, fever, and vomiting. Food sample collected by health center and were identify by LABKESDA (Laboratorium Kesehatan Daerah) of Bogor City.
Results: Ten out of 55 respondents classified as cases. They were all women with an average age of 36 years old. The mean of incubation period was 12 hours and 6 minutes. Cases among respondents who ate Telur Omega-3 Balado was 21,3%. Attributable risk contributed by Telur Omega-3 Balado and Nasi, both were 100%. Telur Omega-3 Balado suspected as source of food poisoning (RR 2,24; 95%, CI: 0,37-13,4). Culture of *Salmonella spp* was isolated in Telur Omega-3 test by LABKESDA.
Conclusions: It was quite likely that the cause of this food poisoning was *Salmonella spp* in Telur Omega-3. Food sample testing, throwing food away and health promotion held by Health center and health officer of Bogor city due to restrain this food poisoning happen again. For future investigation on outbreak in addition to indepth interview, specimens were also important to be collected and tested to prove the cause of outbreak.
Keywords: Salmonella, Food Poisoning, Investigation, Bogor City

11. Analysis of Post Disaster Health Problem in Palu, Sigi and Donggala 2018

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Background: Disasters that occurred in Palu City, Sigi Regency and Donggala Regency on September 28, 2018 resulted in potential outbreaks of disease. This is known through the reporting system carried out by public health center to the Central Sulawesi Provincial Health Office. The purpose of this study is to describe the disease situation in disaster victims based on the early alert system and daily response at the Central Sulawesi Provincial Health Office.
Methods: This study is a descriptive study using case data based on an early alert system report and daily responses that are described according to the characteristics (gender, age) of the place and number of cases obtained from surveillance at the Central Sulawesi Provincial Health Office on 12 to 23 October 2018.
Results: Most reports were found in cases of acute respiratory infections with a total of 485 cases. Distribution of cases based on age is divided into two, namely the highest at age> 5 years as many as 317 cases and <5 years as many as 136 cases on October 18, 2018. Based on 3 areas affected by disasters the potential for outbreaks is found in the work area of Lembasada health center in Donggala Regency.
Conclusions: all diseases that have the most potential outbreaks of disease after disasters in the city of Palu, Sigi Regency and Donggala Regency are acute respiratory infections which are triggered by dense dwellings and large amounts of dust in refugee camps.
Keyword: Epidemiology, Analysis of Health Problem, EWARS, Trend of cases disease

12. Investigation Chikungunya Outbreak in Argosari Village, Bantul District May 2018

Authors: Antonius Adolf Gebang[1], Kusnia Wati Rahayu[1], Dibyo Pramono[1], Khabib Mualim[2].
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Background: On Wednesday, May 23, 2018, the communicable disease contron division of the Bantul District Health Office (DHO) received a report from the Sedayu 1 Public Health Center surveillance officer that increasing of suspected chikungunya case to 30 people occurred in Jaten Hamlet, Argosari Village. The investigation was carried out to ensure the case, identify the risk factor and measure the control effort.
Methods: This investigation used a case control design with a ratio of 1:2. Suspected cases are people with symptoms of fever, join paint and or skin rash with or without other symptoms such as itching, nausea, vomiting, headache, sore throat, shortness of breath. The confirmation use rapid diagnostic test of chikungunya to the 8 samples. Door to door interview conducted using structured questioner into 4 neighborhood organization. The environmental observation also conducted to find out the breeding place.
Results: There were found 30 suspected cases. The majority of the cases were women (53,3%), >15 years old (56,7%), work as a farmer (27%) and housewife (23%). The case spread into 3 neighborhood aorganization (RT) wich highest rate in RT 41 attack rate 15,7%. It supported with the finding that in area also found the larvae of Aedes aegypti 91,46% in 2 neighborhood organization breeding place. The environmental and homes situation supported to increase number of Aedes aegypti population become a major risk factor of transmission.
Conclusions: There has been a chikungunya outbreak in Argosari Village, Bantul in may 2018. It recommend to eradication of mosquito nests with 3M+ followed by regular and periodic larvae monitoring.
Keywords: Chikungunya, Aedes Aegypti, Outbreak

13. Analysis of Health Problems in the Stunting in Magetan District, East Jawa, 2019

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Background: The major issue for children under five years in the world is stunting. The cases of stunting in Magetan was fluctuated. Based on data, in 2017 the case was 24,8%, in 2016 was 22,1%, and in 2015 was 22,4 %. The goal of this study is to identify the cause of stunting and to determine the priority problem for stunting at Magetan district..
Methods: This study was observational study. Data collection used second data analysis, brain storming and in depth interview. Health service indicator was created from health profile of Magetan district, report of nutrition program and accountability report from health office of Magetan district in 2017. This analysis used Urgent Seriousness Growth (USG) method for priority problem, Diagram Analysis of Health Issue is used to identify the cause of problem and finally the used of Capability Accessibility Readiness Leverage (CARL) to find the priority problem.
Results: The result saw that several midwife would not understand how anthropometry measurement. The pregnant mothers and his families did not aware the importance of nutrition during the premarital, maternity and breastfeeding period. Several midwives have not implemented integrated Antenatal Care (ANC). Not all cadres of skilled perform anthropometric measurements. Stunting nutrition surveillance system have not yet optimal.
Conclusion: It is obvious that the training related to stunting, anthropometric measurements, and ANC for midwife in the village. Building intensive communication among midwife and cadre; Sharing information and knowledge to the teenager and young mother about the important of nutrition. Do revitalization in integrated health service pos (Posyandu) and refreshment program towards the cadre. It is necessary to evaluate and strengthen the stunting surveillance system in stage.
Keywords: Nutrition, Stunting, Anthropometry, Magetan

14. Epidemiological Investigation of Hepatitis A Outbreak at Elementary School in Depok City, 2019

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Background: On January 14, 2019, the Depok City Health Office received information that 22 children at elementary school in Depok City had symptoms of jaundice. This study aims to identify risk factors of hepatitis A outbreak at elementary school in Depok City.
Methods: This investigation used a case-control design with 30 cases and 90 controls. Probable cases defined as a child who had specific clinical symptoms of hepatitis A, such as jaundice eyes and skin or colored urine like tea, from November 2018 to January 2019. Controls were a child who hadn't experience a history of jaundice eyes and skin or colored urine like tea before January 16, 2019. We identified exposures to suspected food items, hygiene behavior and direct contact with the case.
Results: We found 25 cases (89.29%) with specific symptoms of jaundice eyes. All cases were less than 15 years old (6 to 13 years old). T-test analysis obtained two risk factors of Hepatitis A outbreak, that a child who used cutlery in wet conditions (30.00% in case group and 13.33% in control group; OR 2.79; 95% CI 1.04-7.49) and a child who consumed cilok (foods made from tapioca) (26.67% in case group 10.00% in control group; OR 3.27; 95% CI 1.13-9.47). Hepatitis A outbreak was a propagated source outbreak. The transmission route described by the epidemic curves.
Conclusion: This study concluded risk factors the occurrence of hepatitis A was poor hygiene behavior. The key to prevention of hepatitis A outbreak in the future is enhancing awareness of hygiene behavior.
Keyword: Epidemic, Hepatitis A, Outbreak

15. Analysis of the Tuberculosis Findings in the Tulungagung Regency of East Java In 2018

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Background: The lack of Tuberculosis case finding is one of the problems in Tulungagung. During the last three years, targets and indicators of tuberculosis prevention have not reached 70%. In 2018 with 1,035,290 people, the *Case Detection Rate* result obtained was as of 47% with an incidence rate as of 3,013 people. This study aims to analyze the problems on the lack of the scope of tuberculosis findings that can be used as planning, advocacy and policy for improvement.
Methods: The study was conducted in the Tulungagung District Health Office from January 2019. The problem identification was carried out by interviewing and observing secondary data of *Case Detection Rate* from Tulungagung Health Profile, the quarterly reports on findings of people with tuberculosis and reports of the Regional Action Planning implementation of 2018. The problem priority used the (CARL) method: *Capability, Accessibility, Readiness, Leverage*. The analysis of problem causes was done using the *Fishbone* method.
Results: The significant issue in Tulungagung in 2018 is the Tuberculosis cases finding shave not reached the predetermined target. The primary cause on the lack of the scope of tuberculosis findings is due to deficient frequency of supervision and feedback for program implementers. Cross-program coordination carried out is still lacking in communication to the group affected. Minimum service standard changes, the *all cases* review, become the staff obstacles.
Conclusions: The lack on the scope of case findings has become the main problem to the Tuberculosis program in Tulungagung. It suggests increasing the frequency of supervision and feedback for program implementers, enhancing the coordination of network programs related to tuberculosis and improving the staff performance on the newly minimum service standard.
Keywords: Tuberculosis, *Case Detection Rate*, CARL, *Fishbone*

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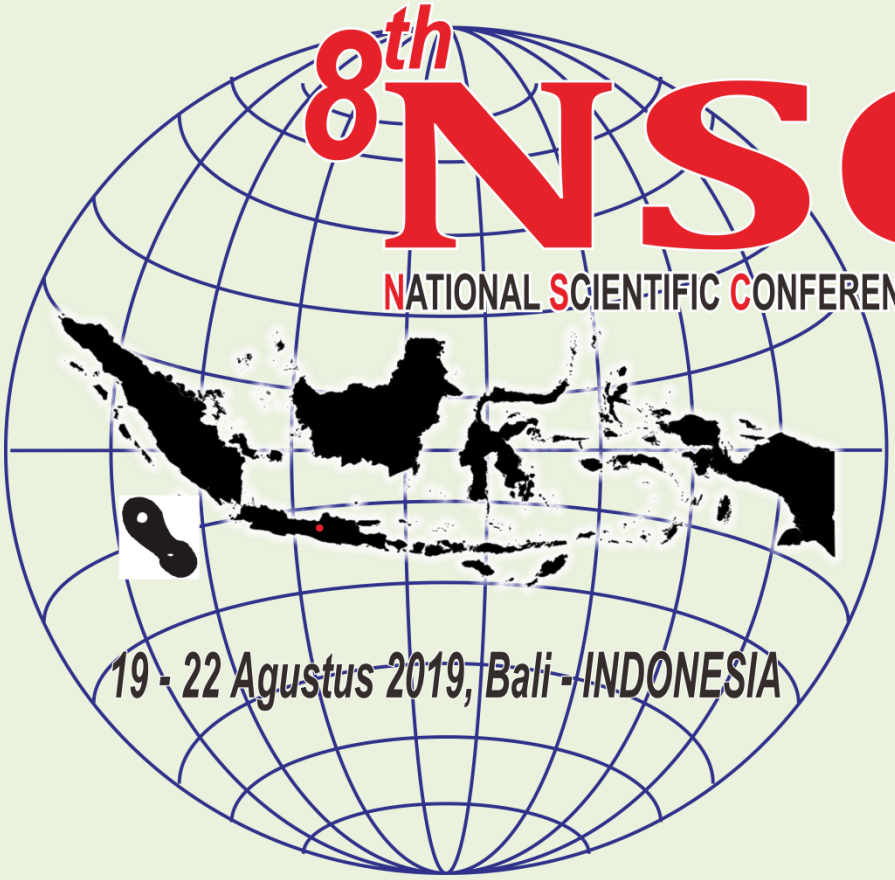
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