## FACULTY OF NURSING
### UNIVERSITAS AIRLANGGA
*Excellence With Morality*

# INTERNATIONAL
# NURSING CONFERENCE

**The Proceeding of**
**The 7th International Nursing Conference**
"Global Nursing Challenges in The Free Trade Era"
Surabaya, April 8th – 9th 2016

**Flinders** UNIVERSITY    **jiCA**

CO-HOST:

The Proceeding of 7th International Nursing Conference:
*Global Nursing Challenges in The Free Trade Era*

Fakultas Keperawatan Universitas Airlangga

Fakultas Keperawatan Universitas Airlangga

The Proceeding of 7th International Nursing Conference:
*Global Nursing Challenges in The Free Trade Era*

716  hlm, 21 x 29,7 cm

ISSN : 2407-0629

# CONTENTS

**Keynote Speaker** : Junaidi Khotib, S.Si, M.Kes., PhD

# COMMITTEE

Patron : Rector of Universitas Airlangga

Advisor : Prof. Dr. Nursalam, M.Nurs (Hons)
Dean Faculty of Nursing,Universitas Airlangga
Dean Faculty of Nursing and Midwifery Universitas Nahdlatul Ulama Surabaya
Dean Faculty of Health Science Universitas Muhammadiyah Surabaya
Head of STIKES Ngudia Husada Bangkalan
Head of STIKES Pemerintah Kabupaten Jombang
Head of STIKES Maharani Malang
Head of Nursing Programme Poltekkes Kementerian Kesehatan Malang
Head of Nursing Programme Poltekkes Kementerian Kesehatan Surabaya
Dean Faculty of Health Science Universitas Islam Sultan Agung Semarang
Dean Faculty of Health Science Universitas Pesantren Tinggi Darul Ulum Jombang
Head of STIKES Nurul Jadid Probolinggo
Head of STIKES Insan Cendekia Husada Bojonegoro
Dean Faculty of Nursing Universitas Muhammadiyah Banjarmasin
STIKES YARSI Mataram

Steering Committee : Dr. Kusnanto, S.Kp.,M.Kes.
Vice Dean 1 of Faculty of Nursing Universitas Airlangga
Eka Mishbahatul Mar'ah Has.,S.Kep., Ns., M.Kep.
Vice Dean 2 of Faculty of Nursing, Universitas Airlangga

Steering Chairman : Dr. Ah. Yusuf, S.Kp.,M.Kes.
Vice Dean 3 of Faculty Nursing, Universitas Airlangga

Organizing Committee

  Chair : Laily Hidayati, S.Kep., Ns., M.Kep.

  Secretaries : Rista Fauziningtyas, S.Kep. Ns, M.Kep.
Lailatun Ni'mah, S.Kep. Ns, M.Kep.

  Treasury : Erna Dwi W., S.Kep., Ns., M.Kep.
Ninik Setyaningrum D, S.H

| | |
|---|---|
| Event division board | : Retnayu Pradanie, S.Kep., Ns.M.Kep.<br>Tiyas Kusumaningrum, S.Kep.,Ns.M.Kep.<br>Ika Nur Pratiwi, S.Kep., Ns.M.Kep.<br>Iqlima Dwi Kurnia, S.Kep., Ns.M.Kep.<br>Fauziyatun Nisa', S.S.T., M.Kes.<br>Ana Farida Ulfa, S.Kep., Ns., M.Kep.<br>Sestu Retno D.A,S.Kp,M.Kes<br>Rahmawati Maulidia., M.Kep<br>Wahyu Endang S. S.KM, M.Kep.<br>Dede Nasrullah, S.Kep., Ns.M.Kep.<br>Nisfil Mufidah, S.Kep., Ns.M.Kep.<br>Ferawati, S.Kep., Ns<br>Ns. Dwi Adji Norontoko, M.Kep. |
| Scientific board | : Dr. Joni Haryanto, S.Kp.,MSi<br>Dr. Tintin Sukartini, S.Kp, M.Kes<br>EstyYunitasari, S.Kp, M.Kes<br>Harmayetty, S.Kp, M.Kes<br>Yulis Setiya Dewi, S.Kep., Ns.,Mng<br>Erna Dwi Wahyuni, S.Kep., Ns.M.Kep.<br>Elida Ulfiana, S.Kep., Ns.M.Kep.<br>Praba Diyan Rahmawati, S.Kep., Ns.M.Kep.<br>Ilya Krisnana, S.kep, Ns, M.kep.<br>Khamida, S.Kep.Ns.,M.Kep.<br>Dr. Ririn Probowati,S.Kp,M.Kes<br>Lilla Maria., M.Kep<br>Diah Ayu Fatmawati, S.Kep., Ns., M.Kep.<br>Ns Suyanto, M.Kep.<br>Yuanita Wulandari, S.Kep.,Ns.MS.<br>Mulia Mayangsari, S.Kep., Ns.M.Kep. Sp.Kep.MB.<br>Sri Astutik Andayani, S.Kep.Ns, M.Kes.<br>M. Roni Al faqih, S.Kep., Ns<br>Ns. Endah Suprihatin, M.Kep., Sp. Mat.<br>Dr. Luluk Widarti, M.Kes.<br>Hasyim As'ari, S.Kep. Ns., M.Ked. |
| Publications, partnership, & Sponsorship | : Setho Hadisuyatmana, S.Kep., Ns., M.NS (CommHlth&PC)<br>Dimas Dwi Arbi, S.Kom.<br>Sylvia Dwi W., S.Kep., Ns.M.Kep.<br>Nur Hidayah, S.Kep.Ns.,M.Kes.<br>Anis Satus Syarifah, S.Kep,Ns,M.Kes<br>Feriana Ira Handian., M.Kep<br>Edi Wibowo S., S.Kep,Ns,M.Kes<br>Septian Galuh Winata, S.Kep., Ns.<br>Mufarika, M.Kep.<br>Ns. Handono Fathur R. M.Kep.Sp.Kep.MB. |

Maslicah, S.Kep., Ns.

| | |
|---|---|
| Accomodation board | : Kristiawati, S.Kp,M.Kep., Sp. Kep. An. Candra Panji A., S.Kep., Ns., M.Kep. Nur Rohmawati |
| Logistics | : Dr. Hanik Endang N, S.Kep., Ns.M.kep Suyatik |
| Equipment division | : M. Anwari Suharto Sukardjianto Arifin Sodikin |

# SCIENTIFIC PAPER REVIEWER

Prof. Dr. Nursalam, M.Nurs (Hons)     Universitas Airlangga, Surabaya, Indonesia
Ellen Rosskam, PhD, MPH.              University Research Council & Center for Human Services, United States

Dr. Ah. Yusuf, S.Kp.,M.Kes.          Universitas Airlangga, Surabaya, Indonesia
Dr. M. Hasinuddin, S.Kep., Ns., M.Kep.  STIKES Ngudia Husada, Bangkalan, Indonesia

Dr. Joni Haryanto, S.Kp.,MSi.        Universitas Airlangga, Surabaya, Indonesia
Dr. Ririn Probowati,S.Kp,M.Kes.      STIKES Pemerintah Kabupaten Jombang, Indonesia

Dr. Kusnanto, S.Kp.,M.Kes.           Universitas Airlangga, Surabaya, Indonesia
Dr. Tintin Sukartini, S.Kp, M.Kes.   Universitas Airlangga, Surabaya, Indonesia

# LIST OF ORAL PRESENTATION

# ANALYSIS FACTORS AFFECTING DIPHTHERIA EPIDEMIC IN BANGKALAN MADURA

**Meiana Harfika**

Stikes Hang Tuah Surabaya

e-mail: meianaharfika@gmail.com

**ABSTRACT**

**Introduction:** Diphtheria is a disease caused by *Corynebacterium diphtheriae*. in 2012 this disease became epidemic in several regions of East Java, including Bangkalan, Situbondo, Jombang and Surabaya. **Method:** This study was an applied research using secondary data drawn from Puskesmas Bangkalan in 2013. **Results:** The results showed that the human resources versus the target number PIN (p = 0.048) and immunization coverage have a relationship with the incidence of diphtheria in Bangkalan (p = 0.041). **Discussion:** High immunization coverage is expected to reduce the incidence of the disease are immunized. The full immunization coverage have a significant influence on the case of diphtheria. The results of this study are expected in improving health promotion in order to reduce cases of diphtheria in East Java

**Key word :** diphtheria, epidemic

## INTRODUCTION

Diphtheria is a health problem both worldwide and in Indonesia itself. Diphtheria is an acute disease caused by the bacteria *Corynebacterium diphtheria*. The disease was first described by Hippocrates at -5 th century BC, and then only in the 6th century AD Aetius tells of diphtheria epidemic. In 1883, the germs of diphtheria Klebs researching on pseudomembranous and bred by Loeffler in 1884. At the end of the 19th century, the experts found diphtheria antitoxin, while the new toxoid was developed in the 1920s. Diphtheria is an endemic disease in many countries in the world. In the early 1980s an increased incidence of diphtheria cases in State ex-soviet union because chaos immunization program, and in the 1990s is still going great epidemics in Russia and Ukraine. In the 2000s epidemic of diphtheria still occur and spread to neighboring countries.

In Europe, diphtheria immunization program began in I940. and since the incidence of diphtheria immunization program is quite low. Since then, only two epidemics have occurred, the first in 1982 - 1985 and the second that began in 1990. The epidemic is primarily affected republics in the former Soviet Union, in particular Russia and Ukraine (ProgramPerluasan Immunization in 1993). More than 95% of cases are now reported in the European Region of Russia and Ukraine.

In Indonesia, in 2011 the world health Indonesia struck by the spread of diphtheria in the province of East Java (East Java). A total of 11 333 children died of diphtheria cases that arise during the year 2011. Therefore, the government of East Java Province set KLB (Unusual) diphtheria in East Java in October 2011. Determination of the status of outbreaks is done considering the case has spread in almost all regencies / cities East Java.

Diphtheria is a case of "re-emerging disesase" in East Java because of diphtheria cases actually declined in 1985, but increased again in 2005 during an Extraordinary Events (KLB) in Bangkalan. Since then, the spread of diphtheria increasingly widespread and reached its peak in 2012 of 955 cases with 37 deaths and are scattered in 38 districts / cities. Diphtheria cases in East Java is the largest contributor to the case in Indonesia (which

amounted to 74%) even in the world (East Java Health Office, 2013)

Diphtheria cases in East Java has plagued 34 cities / districts. In 2012 diphtheria cases was highest in Situbondo (129 cases), Jombang (95 cases), and Surabaya (78 cases). While the lowest cases Kediri (2 cases), Pasuruan (3 cases) and Madison County (4 cases). As figure 1.1

Figure 1.1 The case of diphtheria in East Java
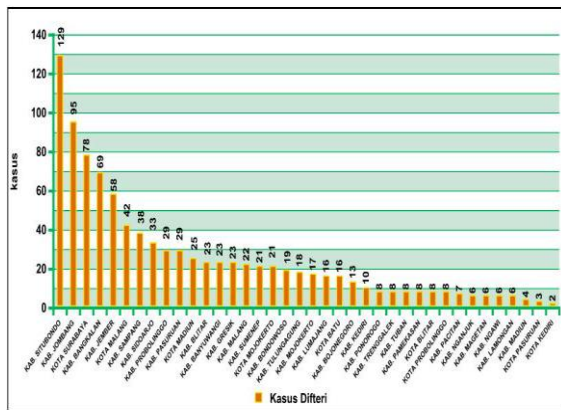


Transmission of diphtheria has been increasing since 2005. In 2010, in the East Java region is high morbidity as many as 304 cases of diphtheria in 32 areas and resulted in 21 children died. Whereas in 2009, there were 140 cases in 24 regions in East Java with the victim eight people died. East Java Province for two years from 2012 to June 2013 declared Extraordinary Events Diphtheria with the number of cases as many as 1,264, the case was with the details of the year 2012 as many as 954 cases with the death of 37 people, the year 2013 until the month of June as many as 310 cases with the deaths of 15 people (East Java Health Office, 2013).

Based on data from the Health Office Bangkalan, terdpat 76 people stricken with diphtheria in 2013. This deadly disease occurred in 14 districts and only four districts that are not reported any incidence of diphtheria. In 2012, the number of people stricken with diphtheria Bangkalan that as many as 69 people, and of these six people died.

Efforts are being made to suppress a case of diphtheria is to do the basic immunization in infants with vaccines Diphtheria-Pertussis-Tetanus and Hepatitis B (DPT-HB). The vaccine is given three (3) times that at the age of 2 months, 3 months and 4 months. Moreover, due to the surge of cases in school age children the additional immunization Tetanus Diphtheria (TD) is also given to primary school children and equal grades 4-6 and high school (SMP) (East Java Health Office,2013)

## RESEARCH METHOD

This type of research used in this study is an applied research is research that is used to apply and develop science in which the theory is applied in the field of health statistics. The location of this research is in the province of Bangkalan Madura and research time from May to June 2014. The data used in this study is data from the Health Office Bangkalan 2012. This data is the data of Extraordinary Events diphtheria. The variables in this study consisted of the dependent variable and independent variables. The dependent variable is the Diphtheria outbreak. The independent variable is the density of occupancy, direct contact, Human Resources (HR), distance between regions and Immunization Coverage.

## RESULT

### Number of Cases

Distribution of the District according to the number of cases in the District can be viewed through the following table

Table 1 Average Number of Cases Difetri by the District in 2013

| Subdistrict | Case Number | Percentage (%) |
|---|---|---|
| Tanjung Bumi | 24 | 16.55 |
| Sepuluh | 3 | 2.07 |
| Klampis | 21 | 14.48 |
| Kokop | 1 | 0.69 |
| Arosbaya | 8 | 5.52 |
| Geger | 6 | 4.14 |
| Bangkalan | 17 | 11.72 |
| Burneh | 8 | 5.52 |
| Konang | 0 | 0 |

| Subdistrict | | |
|---|---|---|
| Tanah Merah | 9 | 6.21 |
| Galis | 8 | 5.52 |
| Socah | 6 | 4.14 |
| Tragah | 2 | 1.38 |
| Blega | 1 | 0.69 |
| Kamal | 2 | 1.38 |
| Labang | 6 | 4.14 |
| Kwanyar | 11 | 7.59 |
| Modung | 12 | 8.28 |
| **Total** | **145** | **100** |

Source: Secondary Data DHO Bangkalan Year 2013

Table 1 shows that in Bangkalan, the average number of cases of diphtheria most was the district of Tanjung Bumi is 24 cases (16.55%) and the lowest number of cases of diphtheria is the District Subdistrict Kokop and Blega namely 1 case (0.69%).

**Residential Density**

Distribution of districts according to population density in Bangkalan can be viewed through the following table

Table 2 The average density of occupancy by the District in 2013

| Subdistrict | Density Residential |
|---|---|
| Tanjung Bumi | 732.65 |
| Sepuluh | 539.73 |
| Klampis | 742.40 |
| Kokop | 507.34 |
| Arosbaya | 963.91 |
| Geger | 517.90 |
| Bangkalan | 2,229.43 |
| Burneh | 857.97 |
| Konang | 564.43 |
| Tanah Merah | 859.80 |
| Galis | 627.20 |
| Socah | 1,004.93 |
| Tragah | 682.37 |
| Blega | 583.38 |
| Kamal | 1,126.52 |
| Labang | 970.38 |
| Kwanyar | 894.40 |
| Modung | 584.31 |

| Total | 14989 |
|---|---|

Source: Secondary Data DHO Bangkalan Year 2013

Table 2 shows that in Bangkalan, the average occupancy density sufficient qualified District of Bangkalan is 2229.43 and less qualified occupancy density is the District Kokop ie 507.34.

**Direct contact**

Distribution of districts according to the number of direct contacts in Bangkalan can be viewed through the following table:

Tabel 3. Average Number of Contacts Direct by the District

| Subdistrict | Direct of Contact |
|---|---|
| Tanjung Bumi | 7.3 |
| Sepuluh | 9.6 |
| Klampis | 15 |
| Kokop | 3.48 |
| Arosbaya | 5.75 |
| Geger | 9 |
| Bangkalan | 11.33 |
| Burneh | 9.8 |
| Konang | 4.36 |
| Tanah Merah | 12 |
| Galis | 11 |
| Socah | 11.6 |
| Tragah | 2.99 |
| Blega | 23 |
| Kamal | 6 |
| Labang | 9.25 |
| Kwanyar | 13 |
| Modung | 8.6 |
| **Total** | 173.06 |

Source: Secondary Data DHO Bangkalan Year 2013

Table 3 shows that in Bangkalan, the average number is the most direct contact the District Blega with 23 contacts and the lowest was Trega namely the District 3 contacts.

**Human Resources According to People (The Comparison of Human Resources by Total Goals)**

Distribution Comparison of the District according to Human Resources by Total Goals in Bangkalan can be viewed through the following table.

Table 4 The average HR by the District

| Subdistrict | HR according to target |
|---|---|
| Tanjung Bumi | 568.66 |
| Sepuluh | 705.09 |
| Klampis | 853.47 |
| Kokop | 1416.17 |
| Arosbaya | 495.61 |
| Geger | 1455.32 |
| Bangkalan | 992.58 |
| Burneh | 763.96 |
| Konang | 1358.42 |
| Tanah Merah | 1080.11 |
| Galis | 1283.15 |
| Socah | 692.35 |
| Tragah | 758.07 |
| Blega | 1149.89 |
| Kamal | 813.88 |
| Labang | 990.90 |
| Kwanyar | 968.41 |
| Modung | 856.36 |
| **Total** | 17202.40 |

Source: Secondary Data DHO Bangkalan Year 2013

Table 4 shows that in Bangkalan, areas of high average human resources (HR) is the District Geger is 1455.32 and the average area of human resources (HR) Low is the District Arosbaya ie 495.61.

**Distance of Territory**

Distribution Sub-district according to population density in the district can be seen through the following table:

Table 5 Average Spacing Region Based on the District

| Subdistrict | Distance of Territory |
|---|---|
| Tanjung Bumi | 61 |
| Sepuluh | 50 |
| Klampis | 42 |
| Kokop | 66 |
| Arosbaya | 35 |
| Geger | 43 |
| Bangkalan | 21 |
| Burneh | 18 |
| Konang | 36 |
| Tanah Merah | 0 |
| Galis | 10 |
| Socah | 29 |
| Tragah | 13 |
| Blega | 21 |
| Kamal | 39 |
| Labang | 18 |
| Kwanyar | 10 |
| Modung | 31 |
| **Total** | 543 |

Source: Secondary Data DHO Bangkalan Year 2013

Table 5 shows the farthest distance from Tanah Merah districts are districts Kokop 66 KM and cement the closest distance from Tanah Merah districts are Galis and Kwanyar 10 KM.

**Immunization Coverage**

Distribution Sub-district according to population density in the district can be seen through the following table:

Table 6. Average Immunization Coverage Based on the District

| Subdistrict | Immunization Coverage |
|---|---|
| Tanjung Bumi | 95.08 |
| Sepuluh | 96.51 |
| Klampis | 96.60 |
| Kokop | 101.44 |
| Arosbaya | 101.10 |
| Geger | 89.79 |
| Bangkalan | 96.68 |

| | |
|---|---|
| Burneh | 97.50 |
| Konang | 90.88 |
| Tanah Merah | 85.63 |
| Galis | 95.33 |
| Socah | 101.87 |
| Tragah | 115.35 |
| Blega | 98.36 |
| Kamal | 110.77 |
| Labang | 103.51 |
| Kwanyar | 92.41 |
| Modung | 93.38 |
| **Total** | 1762.18 |

Source: Secondary Data DHO Bangkalan Year 2013

Table 6 shows that the highest immunization coverage at the health center were Tragah that is equal to 115.35% and then amounted to 110.8% Kamal health centers, health centers Labang 103.508%, 101.44% Kokop health centers, and health centers Arusbaya of 101.095%. While the lowest immunization coverage at the health center Tanah Merah which amounted to 85.6298%.

## DISCUSSION
### Density Residential

From the analysis p value $0.128 > \alpha\ 0{:}05$ this means there is no relation between the extraordinary event diphtheria with residential density in Bangkalan.

Density residential home also affect health due to potentially spread the disease agent be easily transmitted from one human to another human. The density of occupants in the house also affect the breeding of germs in the room. Residential density in the home, is one factor that can increase the incidence of diphtheria.

But in the data analysis, no association between residential density with dfteri disease events in general this is due to good occupancy density in the group of children and adults in Bangkalan is good enough. Variations to the increased cases of diphtheria, causing outbreaks of diphtheria allegedly due to other factors.

In general appraisal occupant density by using the provisions of minimum standards, the occupant density that meets the health requirements derived from the quotient between the area of the floor with the number of inhabitants> 10 m² / person and occupant density does not meet health requirements when the obtained quotient between the area of the floor with the number of occupants <10 m² / person(Lopez,1989).

### Direct of Contact
The results of multiple linear regression analysis obtained by value p-value of 0.625 (p <0.05), which means that there is no influence between the number of direct contacts with the outbreak of diphtheria in Bangkalan.

The main source of human infection is diphtheria. Transmission occurs through the respiratory air when direct contact with patients or carriers (carrier) germs. Someone with diphtheria can transmit the disease since the first sick day to 4 weeks or until no longer found in the lesions of existing bacteria. A carrier (carrier) can transmit disease germs to 6 months (Cahyono, 2010).

Based on the results of data analysis and the theory of the variable direct contact influential only in the group of children alone but not the adult group caused by the immune system to target children more vulnerable than the adult group, so as to the occurrence of diphtheria directly to children more easily than people adult.

### Comparison between the HR and the target
The comparison between the amount of human resources to provide faksinasi with the target number also the risk of the spread or transmission of diphtheria in Bangkalan district, meaning that the less the ratio between the SDM with the target number will further reduce the risk of contracting or spreading the disease.

Based on the results obtained by linear regression analysis p-value of 0.048 (p <0.05) means that there is a significant relationship

between the number of HR with diphtheria outbreak in Bangkalan.

According to Sonny Sumarsono (2003), Human Resources or the human recources contains two meanings. First, is the work effort or service that can be provided in the production process. In other respects the human reflect the quality of the effort given by a person in a certain time to produce goods and services. The second notion, HR involves the human who is able to work to provide the services or work effort. Ability to work means being able to engage in activities that have economic activities, namely that these activities generate goods or services to meet the needs or the public.

Human Resources (HR) became the main factor of success running an organization. Then how the resources that need to be developed so that organizational goals can be achieved with good. In this case the SDM is a health worker spearheading an immunization services. sometimes the number of health and immunization disproportionate number of participants so that in one day a health worker holds a lot of goals. It would be ineffective ratio between 1 health worker does not balanced. The other problem is the problem of distance and transport lines are hard to reach so do not allow health workers to visit the place. For regions where low immunization coverage must be held sweeping immunization. For immunization workers, need to increase activity in counseling about immunization to the community, especially to do parents in meeting the needs of children about health.

## The distance between Territory

In Bangkalan first discovered diphtheria is in the district of Tanah Merah then to the district Labang. From the available data, the distance between district Tanah Merah and Labang 18 KM. while judging from the number of cases is subdistrict Cape Earth 24 cases, the distance between the Tanah Merah district of Tanjung Bumi is 61 KM. and the second most cases is the District Klampis with 21 cases, the distance between Tanah Merah to the District Klampis is 42 KM.

While the closest distance from the district of Tanah Merah District of Galis and District Kwanyar with a distance of 10 KM while the two districts the number of 8 cases and 11 cases.

In this case far or near distance between the area has nothing to do because of the first discovered in the district of Tanah Merah with 9 cases, it was the highest cases are sub-district of Tanjung Bumi with the distance between the regions is 61 KM.

From the results of linear regression analysis processing child cases the distance between regions have influence with the incidence of diphtheria p value 0.299> 0.05 means that there is no effect of distance between regions with the incidence of diphtheria.

## Immunization Coverage

Based on the results of a linear regression analysis on the scope of acquired immune p-value of 0.041 (p> 0.05) means no statistical effect on the incidence of diphtheria. In theory, high immunization coverage is expected to reduce the incidence of the disease are immunized. The full immunization coverage have a significant influence on the case of diphtheria.

DPT immunization schedule is very full and proper effect on the incidence of Diphtheria, with DPT complete and correct to form immunity (artificial active immunization). Completeness is not enough to protect the immune system from infection Corybacterium diphtheriae, but also must be balanced with the immunization schedule accuracy. Research has been done a significant association between the incidence of diphtheria immunization status. Status DPT and DT incomplete provide opportunities for diphtheria.

## CONCLUSION

Bangkalan District is the first district of infection of diphtheria which later became

Extraordinary Events (KLB) in eastern Java. In 2012 when the Province of East Java to Bangkalan Diphtheria outbreak incident became the order of 4 with most patients after Situbondo, Jombang and Surabaya. Data taken a secondary data drawn from District Health Office Bangkalan. From the results, the results were significantly affected Diphtheria outbreak in Bangkalan Regency is a target value of Human Resources and Immunization Coverage PIN.

## REFERENCES

Achmadi, U.F. (2008). *Manajemen Penyakit Berbasis Wilayah*. Kompas: Jakarta.

Azwar, A. (1996). *Pengantar Ilmu Kesehatan Lingkungan*. Jakarta: Mutiara Sumber Widya.

Cahyono, J.B.S. (2010). *Vaksinasi Cara Ampuh Cegah penyakit Infeksi*. Yogyakarta: Kanisius.

Chin, J. (2000). *Manual Pemberantasan Penyakit Menular*. Alih Bahasa: I Nyoman Kandun. Edisi 17. Jakarta: Departemen Kesehatan RI.

Dewi, EF. (2008). *Hubungan Cakupan Imunisasi Dengan Kejadian Campak*. Dikutip dari http://www.lontar.ui.ac.id/file?file=digital/125942-s-5525-hubungan%20cakupan_literatur.pdf diakses tanggal 10 Juli 2014 jam 02.00 WIB.

Dinkes Provinsi Jatim. (2013). *Profil Kesehatan Jawa Timur 2012*. Surabaya: Dinkes Provinsi Jatim.

Dinkes Provinsi Jatim. (2013). *Penyakit Difteri per Kabupaten/Kota di Jawa Timur per tanggal 11 Januari 2013*. Surabaya: Dinkes Provinsi Jatim.

Dinkes Provinsi Jatim. (2011). *Difteria*. Surabaya: Dinkes Provinsi Jatim. Diakses dari http://dinkes.jatimprov.go.id/userimage/dokumen/PENYAKITDIFTERI&SIUASIDIJATIM.pdf. Diakses 1 Juli 2014.

Drapper, N.,R.,& Smith, H. (1996). *Applied regression analysis* (2nd ed.). New York: John Wiley & Sons. Chapman and Hal.

Efron, Bradley & Tibshirani, J. Robert. (1993). *An Introduction to the Bootstrap*. New York : Champman & Hall, Inc.

Eubank, RL. (1988) *Regression analysis; Nonparametric statistics; Spline theory*. New York : M.Dekker.

Fox, J. (2002). *Bootstrapping Regression Models*, Dikutip dari http://cran.r-project.org/doc/contrib/Fox-Companion/Appendix-Bootstrapping.pdf. Pada tanggal 17 April 2014.

Green, B & Silverman, W. (1994). *Nonparametric Regression and Generalized Linear Models: A roughness penalty approach*. United Kingdom: Taylor & Francis.

Hardle, W. (1990). *Applied Nonparamteric Regression*. United State of America; Cambridge University Press.

Hidayat, AA. (2011). *Pengantar Ilmu Kesehatan Anak untuk Pendidikan Kebidanan*. Jakarta : Salemba Medika.

Hjorth, J. (1994). *Computer Intensive Statistical Methods: Validation, Model Selection, and Bootstrap*. London: Chapman & Hall.

IDAI, (2011). *Pedoman Imunisasi Nasional di Indonesia Edisi Keempat Tahun 2011*. Jakarta: IDAI.

J.-H Lim. (2004) *Bootstrap Confidence Intervals For Steady-State Availability. Asia Pasific Jurnal Of Operational Research*; Vol.21, N0.3; Singapore: ABI/INFORM Global.pp.407-419.

Juslan, Januari (2011) http://juslanskm.blogspot.co.id/2011/01/hubungan-kepadatan-hunian-ventilasi_03.html, jam 2.18 pm

Kartono, B, Purwana, R & Djaja, IM. (2013) *Hubungan Lingkungan Rumah dengan Kejadian Luar Biasa (KLB) di kabupaten Tasikmalaya (2005-2006) dan Garut Januari 2007, Jawa Barat*. Jurnal Kesehatan, Makara Vol 12 no.1, Juni 2008: 8-12) http://journal.ui.ac.id/health/article/viewFile/276/272 diakses tanggal 10 April 2014

Keele, L. (2008). *Semiparametric Regression For The Social Sciences*. England : John willey and Sons Ltd.

Kusnoputranto, H. (2000). *Kesehatan Lingkungan*. Fakultas Kesehatan Masyarakat Universitas Indonesia: Jakarta.

Mulyono, A.H. (2001). *Program Statistik Model Auto Regresi Dalam Metode "Bootstrap"*. Tesis tidak dipublikasikan. Surabaya : PPS-Universitas Airlangga.

Noor, N.N. (2006). *Epidemiologi Penyakit Menular*. Jakarta : Rineka Cipta.

Notoatmodjo, S. (2003). *Ilmu Kesehatan Masyarakat, Prinsip-prinsip Dasar*. Jakarta: Rineka Cipta.

Rahayu, S., & Tarno. (2006). *Prediksi Produksi Jagung Di Jawa Tengah dengan Arima dan Bootstrap*. Prosiding SPMIPA.pp. 157-162. Semarang : Universitas Diponegoro.

Ryan, T.P. (1997). *Modern Regression Methods*. New York: John Wiley & Sons Inc.

Ruppet, D., Wand, M.P., & Carrol, R.J. (2003). *Semiparametric Regression*. New York : Cambridge University Press.

Sari, MP. (2012). *Pengaruh Kondisi Sanitasi Rumah, Status Imunisasi, Dan Pengetahuan Ibu Terhadap Kejadian Difteri Pada Bayi Di Kota Surabaya*, Jurnal Swara Bhumi UnesaVol. 1 No.2.

Setiasih, Asih. (2011). *Faktor Risiko Kejadian Difteri di Kota Surabaya Provinsi Jawa Timur*. Tesis. Universitas Gajah Mada. Tidak dipublikasikan.

Sitohang, V. (2002). *Hubungan Kepadatan Serumah dengan Kejadian Difteri pada Kejadian Luar Biasa (KLB) Difteri di Kabupaten Cianjur Jawa Barat Tahun 2000-2001*, Tesis. Universitas Indonesia. Tidak dipublikasikan.

Sprent. (1993). *Applied Nonparametrik Statistical Methods*. Second Edition, New York : Chapman And Hall

SPSS Inc. (2010). *IBM SPSS Bootstrapping 19*: New York:SPSS Inc.

Sumarsono, Sony (2003). Ekonomi Manajemen Sumber Daya Manusia dan Ketenagakerjaan. Graha Ilmu Yogyakarta.

Utami, F (2013). *Determinan Kejadian Difteri Klinis Di Kabupaten Bangkalan Pasca SUB PIN Difteri Tahun 2012*. Tesis tidak dipublikasikan. Surabaya : Universitas Airlangga.

Uyanto, S. (2009). *Pedoman Analisis data dengan SPSS*. Graha Ilmu : Yogyakarta.

# Faculty of Nursing
## Universitas Airlangga

**Flinders** UNIVERSITY   jICA

# Certificate

This is to certify that :

## MEIANA HARFIKA, S.K.M., M.Kes.

has attended

## as ORAL PRESENTER

# The 7th International Nursing Conference

"Global Nursing Challenges in The Free Trade Era"
Garuda Mukti Universitas Airlangga, Surabaya – April 8th – 9th 2016

Acreditated based on degree of Indonesia National Nurse Association

| No : 389/DPP.PPNI/SK/K.S/IV/2016 | | No : 390/DPP.PPNI/SK/K.S/IV/2016 | |
|---|---|---|---|
| Speaker | : 5 SKP | 1st Author | : 2 SKP |
| Comitte/Moderator | : 3 SKP | 2nd Author | : 1 SKP |
| Participant | : 2 SKP | | |

Prof. Dr. Nursalam, M.Nurs, (Hons)
Dean
Faculty of Nursing
Universitas Airlangga Indonesia

Laily Hidayati, S.Kep., Ns., M.Kep.
Chairperson
Organizing Committee

CO-HOST:

Unipdu JOMBANG   UNJSA