

ISBN 978-602-74235-5-8



# **Abstract Book**



## **International Conference on Public Health for Tropical and Coastal Development (ICOPH-TCD 2016)**

**Organized by :**  
**Faculty Of Public Health**  
**Diponegoro University**

**October 15-17, 2016**  
**Patra Jasa Semarang Convention Hotel**

**ABSTRACT BOOK**  
**INTERNATIONAL CONFERENCE OF PUBLIC HEALTH**  
**FOR TROPICAL AND COASTAL DEVELOPMENT 2016**

©2016 FKM UNDIP PRESS

**EDITORS:**

Martha Irene Kartasurya  
Martini Sulaiman  
Lintang Dian Saraswati  
Yudhy Dharmawan  
Henry Setyawan Santoso

This abstract book is published by

FKM UNDIP PRESS  
Jl. Prof. Soedarto, SH, Tembalang  
Semarang 50275  
Phone: +62-24-7460044  
E-mail: fkmundip.press@gmail.com

ISBN

Copyright © 2016 by FKM UNDIP PRESS

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopy, without permission in writing from the publisher.

## ORGANIZING COMMITTEE

- Board of Adviser** : ➤ Prof. Dr. Yos Johan Utama, SH,  
M.Hum (Rector of Diponegoro  
University, Indonesia)
- Anung Sugihantono MD, MPH.  
(Director-General of Public Health,  
Ministry of Health, Republic of  
Indonesia)
- Chair** : Martha Irene Kartasurya, MD, MSc., Ph.D.  
**Secretary** : Suyatno, BSc. Eng., MPH  
**Secretary Staff** : Farid Agushybana, BSPH, DEA, PhD  
Ratih Indraswari, BSPH, MS  
Ekawati, BSPH, MSc.  
Eka Yunila, BSPH, MS
- Treasurer** : Siti Fatimah Pradigdo, MD, MS  
**Treasurer Staff** : Yus Sudarso, BSc Soc, MS & Sri Winarni,  
MD, MS
- Plenary committee** : Dr. Henry Setyawan Susanto, DDS, MSc.  
**Plenary committee staff** : Lintang Dian Saraswati, BSPH, MS  
Dr. Martini, BSc., MS  
Yudhy Dharmawan, BSPH, MS
- Public relation and accommodation** : Praba Ginanjar, BSPH, MS  
Aditya Kusumawati, BSPH, MS
- Documentation** : Imam Yulianto, BSc; Priguna Septia Putra,  
BSc & Teguh Wibowo, Dipl.
- Transportation** : Yunarso Hendrianto, BSc

## TABLE OF CONTENTS

<b>COPYRIGHT .....</b>	<b>Error! Bookmark not defined.</b>
<b>PREFACE .....</b>	<b>ii</b>
<b>ORGANIZING COMMITTEE .....</b>	<b>iii</b>
<b>SCIENTIFIC COMMITTEE .....</b>	<b>iv</b>
<b>MAIN SPEAKERS .....</b>	<b>v</b>
<b>TIME SCHEDULE .....</b>	<b>vi</b>
<b>ORAL PRESENTATIONS .....</b>	<b>viii</b>
<b>TABLE OF CONTENTS .....</b>	<b>xx</b>
<b>MAIN SPEAKER .....</b>	<b>1</b>
<b>1. ADVANCING PUBLIC HEALTH PROGRAM AND POLICY IN TROPICAL AND COASTAL REGION .....</b>	<b>2</b>
<b>2. ADVANCING PUBLIC HEALTH RESEARCH AND EDUCATION FOR TROPICAL AND COASTAL DEVELOPMENTS .....</b>	<b>3</b>
<b>3. EFFECT OF CLIMATE CHANGE AND MIGRATION ON HEALTH PROBLEMS IN TROPICAL AND COASTAL REGIONS .....</b>	<b>4</b>
<b>4. SMALL ISLAND DEVELOPING STATES, CLIMATE CHANGE, AND FOOD AND NUTRITION SECURITY .....</b>	<b>5</b>
<b>5. TRAINING AND EDUCATION IN OCCUPATIONAL HEALTH – A GLOBAL CHALLENGE .....</b>	<b>6</b>
<b>6. MATERNAL AND CHILD HEALTH HANDBOOK DEVELOPMENT IN TROPICAL AND COASTAL REGIONS .....</b>	<b>7</b>
<b>Sunday, 16<sup>th</sup> October 2016</b>	
<b>ROOM 1 .....</b>	<b>8</b>
<b>1. SOCIALIZING HEALTH CARE AND SOCIAL AGENCY IN INCREASING BENEFICIARIES OF MEMBERSHIP IN WEST ACEH DISTRICT .....</b>	<b>9</b>
<b>2. STRATEGY TO REDUCE LOW BIRTH WEIGHT BABIES IN WEST ACEH REGENCY .....</b>	<b>10</b>
<b>3. SOCIAL CAPITAL, HEALTH INSURANCE AND COMMUNITY ACTION: TOWARD UNIVERSAL HEALTH COVERAGE FOR INFORMAL WORKERS .....</b>	<b>11</b>
<b>4. DELIVERY OF INTEGRATED MENTAL HEALTH SERVICE IN PRIMARY CARE AS STRATEGY TO ACHIEVE SAFE MOTHERHOOD .....</b>	<b>12</b>
<b>5. CESAREAN SECTION TARIFF ANALYSIS BASED ON INDONESIAN CASE BASE GROUPS IN CIPTO MANGUNKUSUMO HOSPITAL .....</b>	<b>13</b>
<b>6. EVALUATION OF POLICY IMPLEMENTATION EXCLUSIVE BREASTFEEDING DURING WORK HOURS IN THE WORKPLACE: A CASE STUDY IN CENTRAL JAVA PROVINCE, INDONESIA .....</b>	<b>14</b>
<b>7. ANALYSIS OF NOT RECEIVING WAGE WORKERS PARTICIPANT'S (PBPU) COMPLIANCE IN PAYING NATIONAL HEALTH INSURANCE PREMIUM .....</b>	<b>15</b>
<b>8. FOOD SAFETY KNOWLEDGE, ATTITUDE AND PRACTICE AMONGST HOSPITAL FOOD HANDLERS .....</b>	<b>16</b>
<b>9. FINANCING INPATIENT CARE AT THE NONPROFIT DD HOSPITAL POST JKN ENFORCED .....</b>	<b>17</b>

10. WORKLOAD INDICATORS OF STAFFING NEED (WISN) METHOD OF MEDICAL RECORD STAFFS IN IBNU SINA PADANG ISLAMIC HOSPITAL 2016.....	18
11. DEVELOPMENT OF SELF MANAGEMENT SUPPORT THROUGH INDEPENDENT HEALTH CARD .....	19
ROOM 2 .....	20
1. RISK FACTORS OF PROLONGED LABOUR AT THE MOTHER AND CHILD HOSPITAL PERTIWI MAKASSAR .....	21
2. EFFECTIVENESS USING INTERACTIVE SOFTWARE AND FLIPCHART MEDIA ON THE DENTAL HEALTH KNOWLEDGE OF THE ELEMENTARY SCHOOL STUDENT.....	22
3. IMPROVING REFERRAL SYSTEM OF MATERNAL AND NEW BORNEEMERGENCY SERVICES IN TANGERANG DISTRICT, INDONESIA.....	23
4. RELATED FACTOR WITH WOMEN'S PREFERENCES FOR BIRTH ATTENDANCE IN MENTAWAI ISLANDS WEST SUMATERA AT 2015 .....	24
5. PROMOTING HEALTHY DIET THROUGH PEER NUTRITION COUNSELING AT POSYANDU REMAJA .....	25
6. THE EFFECT OF ANTENATAL CLASS PLUS COPING SKILL TRAINING TOWARD LEVEL OF STRESS, AND CHILDBIRTH SELF- EFFICACY .....	26
7. HORMONAL CONTRACEPTIVE EXPOSURE AND RISK FACTOR FOR MENINGIOMA IN SOETOMO HOSPITAL 2012 – 2016 .....	27
8. CORRELATION BETWEEN MATERNITY PLACE AND SUPPORT'S HUSBAND WITH STATUS OF EXCLUSIVE BREASTFEEDING IN THE AREA OF ULIN RIVER PUBLIC HEALTH CENTER, BANJARBARU CITY (OBSERVATIONAL STUDIES TO THE MOTHER WITH 6-12 MONTHS BABY).....	28
9. KNOWLEDGE OF ADOLESCENT ABOUT FAMILY PLANNING AND REPRODUCTIVE HEALTH (PRIMARY STUDY ON JUNIOR AND SENIOR HIGH SCHOOL IN BREBES AND PEMALANG, CENTRAL JAVA, INDONESIA).....	29
10. SMS GATEWAY APPLICATION TO REPORTING SUSPECTED TUBERCULOSIS.....	30
11. THE EMPLOYERS IN IMPLEMENTING REPRODUCTIVE HEALTH (THE CHILD BIRTH LEAVE) RIGHT OF THE WOMAN LABOURERS .....	31
ROOM 3 .....	32
1. SPATIAL ANALYSIS AND BEHAVIORAL EVALUATION TO IDENTIFY DIFFERENTIATING FACTOR FOR STATUS OF FILARIASIS ENDEMIC AREA.....	33
2. SPATIAL ANALYSIS OF DENGUE HEMORRHAGIC FEVER INCIDENCE IN SALATIGA CITY, CENTRAL JAVA, INDONESIA .....	34
3. FACTORS ASSOCIATED WITH FAILURE OF CONVERSION AMONG TUBERCULOSIS PATIENT.....	35
4. REDUCE SPLEEN-IFN- $\gamma$ CORRELATED WITH CXCL9 LEVELS DURING CEREBRAL MALARIA PHASE IN ANNONA MURICATA-TREATED SWISS MOUSE STUDY .....	36
5. ANNONA MURICATA ASSOCIATED WITH INCREASE-PHYTOHEMAGLUTIN INDUCED SPLEEN IL-10 PRODUCTION OF SWISS MICE DURING CEREBRAL MALARIA PHASE.....	37
6. ANNONA MURICATA ASSOCIATED WITH REDUCE MACROPHAGE PHAGOCYtic INDEX OF SWISS MICE DURING CEREBRAL MALARIA PHASE .....	38
7. Aedes Aegypti RESISTANCE TO TEMEPHOS IN CENTRAL JAVA REPUBLIC OF INDONESIA.....	39

8.	POSITIVE CORRELATION BETWEEN KIDNEY INJURY MOLECULE-1 AND GENTAMICIN TROUGH LEVEL IN NEONATES WITH INFECTION.....	40
9.	THE EFFECT OF TOOTH BRUSHING ASSISTANCE AMONG BLIND AND DEAF STUDENTS TOWARDS ORAL HYGIENE.....	41
10.	USE AS A STERILE RAZOR HIV TRANSMISSION PREVENTION EFFORTS IN YOGYAKARTA, INDONESIA.....	42
11.	THE CORRELATION BETWEEN THE LEVEL OF HBA1C WITH TOTAL SERUM CHOLESTEROL OF UNCONTROLLED TYPE 2 DIABETES MELLITUS PATIENTS IN BINJAI, SUMATERA UTARA .....	43
	ROOM 4.....	44
1.	THE ADEQUACY OF NUTRIENTS, HISTORY OF DISEASE AND NUTRITIONAL STATUS OF CHILDREN WHO FULFILL THE WHO STANDARD NORMS IN SURABAYA .....	45
2.	PHYSICAL ACTIVITY AND PREFERENCES TO FIBER SOURCE FOOD AS OBESITY DETERMINANT OF MARDIYUANA ELEMENTARY SCHOOL STUDENT .....	46
3.	ANALYSIS PERCEPTION RESPONSIVENESS MATERNAL IN PARENTING WITH PERCEIVED BENEFIT IN MAINTAINING DENTAL HEALTH OF CHILDREN WITH DOWN SYNDROME .....	47
4.	CHANGING OF SNACK FOOD BEHAVIOR AMONG SCHOOL CHILDREN PARTICIPANT OF GOOD SNACKS EDUCATION PROGRAM .....	48
5.	POTENCY OF PROBIOTIC FROM AVOCADO FRUIT (PERSEA AMERICANA P.MILL) AS ANTI HELICOBACTER PYLORI AGENT .....	49
6.	THE CORRELATION BETWEEN BODY MASS INDEX AND SELF-EFFICACY WITH BLOOD GLUCOSE LEVEL IN TYPE 2 DIABETES MELLITUS PATIENTS IN TUNTUNGAN COMMUNITY HEALTH CENTER, MEDAN .....	50
7.	THE RISK FACTORS ANALYSIS TOWARD THE LOW BIRTH WEIGHT (LBW) BABIES IN GORONTALO CITY 2015.....	51
8.	NUTRITIONAL AND ANTINUTRITIONAL PROPERTIES OF LINDUR (BRUGUIERA GYMNORRHIZA) FRUITS FLOUR FROM DIFFERENTS PRETREATMENTS .....	52
9.	SUPPLEMEN VITAMIN A AND ZINC TO INCREASING EFECTIVITY MEDICATION ON MALARIA VIVAX .....	53
10.	PREDICTION MODEL FOR LOW BIRTH WEIGHT OF PREGNANT WOMEN IN NORTH CENTRAL JAVA, INDONESIA .....	54
11.	THE RISK FACTORS OF MALNUTRITION AMONG CHILDREN UNDER FIVE YEARS OF AGE IN RURAL AREA CENTRAL JAVA, INDONESIA .....	55
	ROOM 5.....	56
1.	SELECTION OF ALTERNATIVES ASPECT HOUSE CONDITION IN HANDLING TUBERCULOSIS (TB) IN THE PROVINCE OF GORONTALO.....	57
2.	HOW IMPORTANT IS CULTURE TO SANITATION UPTAKE? THE INFLUENCE OF LOCAL VALUES IN RURAL BALI.....	58
3.	A STUDY OF FOOD COMSUMPTION FREQUENCY AND DENGUE HAEMORRHAGIC FEVER CASES IN TODDLER, CHILDREN, AND ADOLESCENTS IN SEMARANG .....	59
4.	PESTICIDE EXPOSURE AND THE LEVEL OF REVERSE TRIIODOTHYRONINE IN SCHOOL CHILDREN IN DISTRICT BREBES - INDONESIA.....	60
5.	IMPACT OF POLLUTION ON COASTAL ENVIRONMENT A CASE STUDY OF KALIPRAU COASTAL, PEMALANG.....	61

6.	INVERSE DISTANCE WEIGHT METHOD AND ENVIRONMENTAL HEALTH RISKS PB POLLUTION IN DRINKING WATER BASED ON DISTANCE AND DEPTH OF THE BORE WELL IN BELAWAN COASTAL AREA .....	62
7.	MANGROVE HEALTH INDEX AS PART OF SUSTAINABLE MANAGEMENT IN MANGROVE ECOSYSTEM AT KARIMUNJAWA NATIONAL MARINE PARK .....	63
8.	HOST RISK FACTORS FOR TYPHOID FEVER OCCURRENCE IN CHILDREN (A STUDY AT MARTHA FRISKA AND MITRA MEDIKA GENERAL HOSPITALS MEDAN)....	64
9.	THE INCIDENCE OF DENGUE HEMORRHAGIC FEVER IS RELATED TO AIR TEMPERATURE, RAINFALL AND HUMIDITY OF THE CLIMATE IN SEMARANG CITY .....	65
10.	DIFFERENCE THE LEVELS OF PLUMBUM (PB) IN THE AIR WITH THE LEVELS OF HB IN THE BLOOD AT A GAS STATION WORKERS AT YOGYAKARTA .....	66
11.	HEAVY METALS LEVEL AND HEALTH EFFECTS OF COMMUNITY IN INDUSTRIAL AREA .....	67
12.	THE DEVELOPMENT OF PRE-SCHOOL CHILDREN IN THE AREA OF HORTICULTURE IN MAGELANG.....	68
	ROOM 6.....	69
1.	KNOWLEDGE OF FATHERS ON SUPPORTING THE SUCCESS OF EARLY REPRODUCTIVE HEALTH EDUCATION .....	70
2.	THE RELATIONSHIP OF DRINKING ALCOHOL, EXCESS SALT INTAKE, AND SMOKING WITH HYPERTENSION OCCURRENCE IN COASTAL COMMUNITIES .....	71
3.	ATTITUDE AND EXPECTATION TOWARDS INCLUSION EDUCATION FOR CHILDREN WITH DISABILITY: A FRONTIER STUDY IN SEMARANG, CENTRAL JAVA, INDONESIA .....	72
4.	CORRELATION BETWEEN EMOTIONAL INTELLIGENCE AND WORK ENGAGEMENT OF SPECIAL SCHOOL TEACHERS.....	73
5.	SELF EFFICACY OF DRUG-DEPENDENCY WITHDRAWING RESIDENT THROUGH FACILITATING CONDITIONS IN TANAH MERAH REHABILITATION HOUSE OF SAMARINDA CITY .....	74
6.	HEALTH PROMOTION PROCESS IN PARENTING EDUCATION .....	75
7.	VERBAL PERSUASION AS THE DETERMINING FACTORS OF ADOLESCENT SELF-EFFICACY FOR EARLY MARRIAGE IN SOUTH BANGKA REGENCY IN 2016 .....	76
8.	THE MEANING OF TATTOO AND LESBIAN COUPLES: A PHENOMENOLOGY STUDY ...	77
9.	DEMOGRAPHIC RESIDENCY ASSOCIATED WITH EPITHELIAL CERVICAL CELL INFECTION OCCURENCES AMONG BALINESE WOMEN (2013-2016) .....	78
10.	RELATIONSHIP BETWEEN MEDIA INFORMATION AND KNOWLEDGE IN REPRODUCTIVE HEALTH STUDENTS IN ISLAMIC BOARDING SCHOOL DARUT TAQWA BULUSAN SEMARANG.....	79
	Monday, 17 <sup>th</sup> October 2016	
	ROOM 1 .....	80
1.	ASSET-BASED COMMUNITY DEVELOPMENT (ABCD) MODEL FOR STRENGTHENING HEALTHY COMMUNITY DEVELOPMENT .....	81
2.	INITIAL STEP TOWARDS IMPLEMENTATION OF ANTENATAL DEPRESSION AND ASSOCIATED RISK FACTORS SCREENING IN URBAN SETTING .....	82
3.	DETERMINANT OF HEALTH INSURANCE OWNERSHIP IN THE INFORMAL SECTOR: A PANEL STUDY FROM INDONESIA FAMILY LIFE SURVEY .....	83
4.	DETERMINAT'S FACTORS ON OVER NUTRITION.....	84

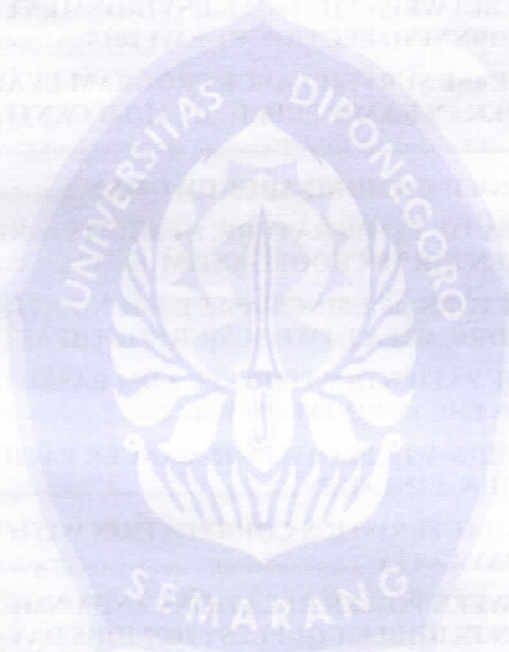
5.	KNOWLEDGE, INTEREST AND ABILITY TO PAY OF INFORMAL WORKERS ABOUT NATIONAL HEALTH INSURANCE IN 2015 .....	85
6.	WASTE ANALYSIS WITH LEAN MODEL ON PHARMACEUTICAL SERVICES OUTPATIENT RS.PANTI RAHAYU HOSPITAL PURWODADI GROBOGAN INDONESIA ..	86
7.	IMPLEMENTATION OF NATIONAL HEALTH INSURANCE IN HOSPITAL 2015 (CASE STUDY IN RSUD KOTA SEMARANG).....	87
8.	MENTORING PREGNANT WOMAN BY PUBLIC HEALTH STUDENT TO INCREASE COMMUNITY PARTICIPATION .....	88
9.	PREDICTION MODEL OF FILARIASIS DETERMINANS BASED GEOSPASIAL IN PALM OIL PLANTATION, WEST PASAMAN.....	89
10.	MEASURING PATIENT SAFETY CLIMATE AT HOSPITALS IN DKI JAKARTA.....	90
	ROOM 2 .....	91
1.	THE EVALUATION OF MATERNAL AND CHILD HEALTH REPORTING SYSTEM IMPLEMENTATION AT WONOSOBO DISTRICT, CENTRAL JAVA PROVINCE.....	92
2.	IMPLEMENTATION OF GEOGRAPHICAL INFORMATION SYSTEM FOR ANALYZING THE MATERNAL HEALTH SERVICE ACCESSIBILITY IN SUB-URBAN OF SEMARANG - CENTRAL JAVA .....	93
3.	ISSUES ON DETECTION OF HIGH RISK PREECLAMPSIA IN ANTENATAL CARE DATA OF VILLAGE-MIDWIVES: AN OBSERVATIONAL STUDY IN TEMANGGUNG DISTRICT, CENTRAL JAVA PROVINCE .....	94
4.	BODY IMAGE AND RELIGIOSITY IN ADOLESCENTS: A COMPARATION BETWEEN PUBLIC AND PRIVATE HIGH SCHOOL STUDENTS .....	95
5.	DIFFERENCES BMI, INTAKE OF MICRONUTRIENTS LEPROSY TYPE MULTIBACILLARY ( SERO POSITIVE) AND NON LEPROSY ( STUDIES IN THE ENDEMIC AREAS DISTRICT BRONDONG , LAMONGAN YEAR 2013 ).....	96
6.	TEMPEH BENGUK EXTRACT AS STIMULANT OF THE NUMBER AND MOTILITY OF MUS MUSCULUS SPERMATOCYTES .....	97
7.	LAG SPATIAL MODELING FOR FINDING THE FACTORS AFFECTING INFANTS MORTALITY RATE IN EAST JAVA .....	98
8.	ISOLATION AND IDENTIFICATION OF LACTOFERRIN AND LACTOPEROXIDASE FROM THE COLOSTRUM OF INDONESIAN DAIRY GOAT .....	99
9.	ANTENATAL DEPRESSION AND ITS DETERMINANT FACTORS IN URBAN COMMUNITY SETTING .....	100
10.	ISOLATION OF STREPTOMYCES SP. FROM LAPINDO MUD SOIL, SIDOARJO, EAST JAVA PROVINCE, INDONESIA AS A LARVICIDE CANDIDATE AGAINST AEGES AEGYPTI .....	101
11.	ISOLATION AND IDENTIFICATION BACTERIAL ENDOPHYTE OF SWEET POTATO (IPOMOEA BATATAS L.) AND ITS ANTIBACTERIAL TEST AGAINST BACTERIAL PATHOGEN.....	102
12.	THE MATERNAL HEALTH SERVICE ACCESSIBILITY ANALYSIS IN SUB-URBAN OF SEMARANG - CENTRAL JAVA BY IMPLEMENTATION OF GIS .....	103
	ROOM 3 .....	104
1.	THE BAIT PREFERENCE OF AMERICAN COCKROACH (PERIPLANETA AMERICANA): FIELD AND LABORATORY STRAINS .....	105
2.	LARVICIDAL ACTIVITY OF BRUCEIN A ISOLATED FROM BRUCEA JAVANICA (L) MERR ON AEGES AEGYPTI LINNAEUS LARVAE.....	106

3.	<b>RISK FACTORS OF CHRONIC SUPPURATIVE OTITIS MEDIA IN UNDER FIVE YEARS CHILDREN IN SEMARANG, INDONESIA .....</b>	<b>107</b>
4.	<b>SOIL TRANSMITTED HELMINTH INGESTION AFTER MASS TREATMENT: AN INTEGRATED ENVIRONMENT AND BEHAVIOR STUDY IN ELEMENTARY SCHOOL CHILDREN .....</b>	<b>108</b>
5.	<b>THE EFFECT OF SE SUPPLEMENTATION ON CHEA AND HAEMOGLOBIN AMONG FARMERS WORKING AS PESTICIDE SPRAYERS .....</b>	<b>109</b>
6.	<b>HEALTH RISK NITROGEN DIOXIDE IN PRIMARY SCHOOL, OGAN ILIR, SOUTH SUMATERA.....</b>	<b>110</b>
7.	<b>POPULATION AND BIOLOGICAL CHARACTERISTIC OF Aedes sp AS A POTENTIAL VECTOR OF DENGUE IN SEMARANG CITY .....</b>	<b>111</b>
8.	<b>COMPARISON BETWEEN TB-HIV PATIENTS AND HIV PATIENTS: A CROSS-SECTIONAL STUDY AT PULMONARY DISEASES CENTER SEMARANG CITY, INDONESIA.....</b>	<b>112</b>
9.	<b>PULMONARY TUBERCULOSIS INFECTION RISK FOR GOLD MINING WORKERS (A STUDY OF TRADITIONAL GOLD MINING IN LEBONG REGENCY, BENGKULU, INDONESIA).....</b>	<b>113</b>
10.	<b>SKIN WOUNDS AS A RISK FACTOR FOR LEPTOSPIROSIS IN SEMARANG CITY: A META-ANALYSIS STUDY.....</b>	<b>114</b>
11.	<b>ACTIVITIES OF BIO-INSECTICIDES FROM BACTERIAL SYMBIONTS OF MARINE SPONGE MB_SP 1 AGAINST Aedes Aegypti.....</b>	<b>115</b>
	<b>ROOM 4 .....</b>	<b>116</b>
1.	<b>ACTIVITY TEST OF PLEUROTUS OSTREATUS JACQ AND PLEUROTUS CYSTIDIOSUS O.K.MILL AS ANTIBACTERIAL AGAINST ESCHERICHIA COLI MIGULA.....</b>	<b>117</b>
2.	<b>STRUCTURED-MODULE EVALUATION AS A KNOWLEDGE IMPROVEMENT EFFORTS AMONG PEOPLE LIVE WITH HIV/AIDS NUTRITION IN SEMARANG .....</b>	<b>118</b>
3.	<b>ESTIMATION CUT OFF POINT ENERGY AND PROTEIN INTAKE TO WEIGHT AND LENGTH OF BIRTH BASED ON MATERNAL HEIGHT .....</b>	<b>119</b>
4.	<b>STUDY OF SIKALA (ETLINGERA ELATIOR) AS TRADITIONAL MEDICINE FOR CURING TYPHOID FEVER SYMPTOMS IN SOUTHEAST SULAWESI.....</b>	<b>120</b>
5.	<b>TODDLERS' MALNUTRITION PROBLEMS IN CAKUNG BARAT 2016 .....</b>	<b>121</b>
6.	<b>IMPACT OF WEANING FOOD TYPES ON NUTRITION AND HEALTH STATUS OF INFANT AGED 6 - 12 MONTHS IN SEMARANG .....</b>	<b>122</b>
7.	<b>ESTIMATING THE BODY LENGTH FROM THE LENGTH OF TIBIAL AND ULNAR IN CHILDREN AGED 6-24 MONTHS IN BOGOR .....</b>	<b>123</b>
8.	<b>RISK FACTORS OF CALCIUM SUPPLEMENTS COMPLIANCE AND CALCIUM SUPPLEMENTS CONTRIBUTION TO CALCIUM ADEQUACY LEVEL AMONG PREGNANT WOMEN IN JEMBER.....</b>	<b>124</b>
9.	<b>THE EFFECT OF EXCLUSIVE BREASTFEEDING PRACTICE ON MATERNAL ANTHROPOMETRY AND BODY FAT CHANGES .....</b>	<b>125</b>
10.	<b>KNOWLEDGES AND PRACTICES OF IRON SUPPLEMENTATION PROGRAM ON THE PREGNANT WOMEN AT THE AREAS WITH HIGH MATERNAL MORTALITY RATE ....</b>	<b>126</b>
11.	<b>ASSOCIATION BETWEEN SUPPLEMENTATION VITAMIN A, RETINOL SERUM, NUTRIENT INTAKE AND MORBIDITY AMONG CHILDREN 1-3 YEARS IN CENTRAL JAVA.....</b>	<b>127</b>
	<b>ROOM 5 .....</b>	<b>128</b>

1.	RISK ANALYSIS OF TOTAL SUSPENDED PARTICULATES AT BUILDING CONSTRUCTION AREA TOWARDS WORKERS HEALTH.....	129
2.	THE KNOWLEDGE IMPROVEMENT EFFORT OF OCCUPATIONAL WOUND MANAGEMENT IN FISHERMAN AT PAGEDANGAN ILIR VILLAGE, TANGERANG REGENCY .....	130
3.	RELATED FACTORS TO SAFETY RIDING BEHAVIOUR ON STUDENTS OF "X" FACULTY, "Y" UNIVERSITY.....	131
4.	SAFETY CLIMATE AND CONSTRUCTION WORKERS' COMPLIANCE WITH THE USE OF PERSONAL PROTECTIVE EQUIPMENT.....	132
5.	HOW TRADITIONAL FISHERMAN PREVENT THE ACCIDENT IN SEMARANG RESIDENTIAL .....	133
6.	OCCUPATIONAL EXPOSURE ON GASOLINE STATION OFFICERS NOT AFFECT THE NASAL MUCOCILIARY CLEARANCE TIME AND PULMONARY FUNCTION TEST .....	134
7.	CULTIVATING RESEARCH ENVIRONMENT TO ENHANCE OCCUPATIONAL HEALTH OF ACADEMICS IN A UNIVERSITY SETTING.....	135
8.	CORRELATION BETWEEN TENURE, BODY MASS INDEX AND MUSCULOSKELETAL DISORDERS COMPLAINT AMONG GEMSTONE CRAFTSMAN IN KERAMAT VILLAGE EAST MARTAPURA DISTRICT .....	136
9.	THE IMPLEMENTATION OF COPE-A TECHNIQUE IN REDUCING STRESS ON WOMEN CORRECTIONAL OFFICER: INDONESIAN SETTING .....	137
10.	ANALYSIS SIGN AND SYMPTOMS OF MUSCULOSKELETAL BASED ON POSTURE AT WORK WORKERS IN THE SMOKING FISH X TIMES AND SALTED, BANDARHARJO VILLAGE, NORTH DISTRICT SEMARANG .....	138
	ROOM 6 .....	139
1.	CONTRIBUTING FACTORS FOR THE UNWILLINGNESS TO VISIT HEALTH SERVICE POST FOR ELDERLY PEOPLE.....	140
2.	MEDIA USE BEHAVIOR AND HEALTH LITERACY ON HIGH SCHOOL STUDENT IN SEMARANG .....	141
3.	FACTORS RELATED TO THE SLEEP PATTERNS BEHAVIOR OF CLASS XI STUDENTS IN MA ASSALAAM SURAKARTA .....	142
4.	THE EFFECT OF KNOWLEDGE AND BEHAVIOR COUNSELING ON LEPROSY PATIENT IN UPTD CIBUAYA KABUPATEN KARAWANG WEST JAVA.....	143
5.	PREMARITAL SEX ADOLESCENTS AT JUNIOR HIGH SCHOOL STUDENT PEKANBARU RIAU .....	144
6.	DOES EMOTIONAL SUPPORT AS A POSITIVE LEARNING ENVIRONMENT, CAN IMPROVE STUDENTS' HELP-SEEKING BEHAVIOUR? .....	145
7.	ADOLESCENTS' ANXIETY: AN EXPLORATIVE STUDY IN THE COASTAL REGION OF CENTRAL JAVA, INDONESIA .....	146
8.	EVALUATION ON THE ACTIVITIES OF ANTENATAL CLASSES IN SEMARANG AND FEMALE, CENTRAL JAVA INDONESIA .....	147
9.	PSYCHOLOGICAL DISTRESS AMONG UNIVERSITY STUDENT: AN EXPLORATORY STUDY .....	148
10.	EFFECTIVENESS OF HEALTH EDUCATION USING MOVIE MEDIA TOWARDS KNOWLEDGE, ATTITUDE, AND BEHAVIOR REGARDING 'PREVENTION OF MOTHER TO CHILD TRANSMISSION' OF HIV/AIDS .....	149
11.	SELF CARE IN PULMONARY TB AND MEDICATION ADHERENCE .....	150

POSTER.....	151
1. V1016G AND F1534C MUTATION IN THE VGSC GENE IN CYPERMETHRIN RESISTANT AEDES AEGYPTI IN CENTRAL JAVA .....	152
2. THE EFFECT OF TEXT MESSAGING ON CHILD HEALTH PROMOTION TO PARENTS LIVING IN COASTAL AREA OF KUPANG REGENCY .....	153
3. STRATEGIES FOR REDUCTION OF LEPROSY DISABILITIES THROUGH THE SELF-CARE GROUP "PAYOENG MEUREULEUY" IN TRIPA MAKMUR SUB-DISTRICT, NAGAN RAYA REGENCY .....	154
4. WOMEN'S POSITION ON FAMILY PLANNING PROGRAM IN INDONESIA.....	155
5. PREVENTION EFFORTS TO DIFFERENCES IN CLINICAL DIAGNOSTIC AND INSURANCE DIAGNOSTIC IMPOSED BY BPJS KESEHATAN .....	156
6. THE COMPARISON OF THE APPLICATION OF ABATE IN WATER RESERVOIRS IN BALIKPAPAN TOWN.....	157
7. THE PRELIMINARY RESEARCH STUDY OF OCCUPATIONAL SELF-EFFICACY FOR MENTAL HEALTH STUDENT WORKER.....	158
8. THE RELATIONSHIP BETWEEN PHYSICAL ENVIRONMENT WITH THE LABOR PRODUCTIVITY AT SPINNING SECTION PT KWI 2014.....	159
9. EPIDEMIOLOGY DISEASE SURVEILLANCE PROGRAM EVALUATION OF TUBERCULOSIS IN PEKAN KAMIS PUBLIC HEALTH CENTER TILATANG KAMANG AGAM.....	160
10. BLOOD GLUCOSE PROFILE AMONG ADULT WOMEN.....	161
11. CORRELATION STUDY OF TEMPERATURE, HUMIDITY, LIGHTING AND THE QUANTITY OF AMBIEN AIR MICROORGANISM .....	162
12. THE AFFECTING FACTORS OF USING BASIC IMMUNIZATION SERVICE IN PUBLIC HEALTH CENTER WORK AREA LAWE SUMUR SOUTHEAST ACEH DISTRICT 2015 ....	163
13. CHARACTERISTIC OF PATIENTS WITH TYPE 2 DM BASED ON BLOOD SUGAR LEVEL AND HBA1CIN PHC IN BINJAI CITY .....	164
14. ALBUMIN AND LYMPHOCYTE PROFILES IN CANCER PATIENTS BASED ON PROTEIN AND VITAMIN A INTAKES.....	165
15. DEMOGRAPHIC CHARACTERISTICS CORRELATION WITH INDEPENDENCE ELDERLY IN SURABAYA CITY.....	166
16. RELATIONSHIP BETWEEN POWER RELATIONS AND UNMET NEED FOR CONTRACEPTION ON ELIGIBLE COUPLES : 2007 IDHS DATA ANALYSIS.....	167
17. EXPLANATORY FACTOR ANALYSIS ON THEORETICAL BASED PSYCHOMETRIC QUESTIONNAIRE.....	168
18. ENHANCING THE ROLE OF PUBLIC HEALTH CENTER AS GATEKEEPER ON THE NATIONAL HEALTH INSURANCE .....	169
19. ANALISYS OF PLANNING PROGRAM ON DISEASE CONTROL AND ENVIRONMENTAL OGAN KOMERING ILIR HEALTH DEPARTEMENT IN 2014.....	170
20. SALIVARY GLUCOSE LEVEL AND PERIODONTAL TISSUE CONDITION OF PATIENTS TYPE 2 DIABETIC MELLITUS IN ISLAMIC CLINIC SULTAN AGUNG HOSPITAL SEMARANG INDONESIA .....	171
21. VALIDATION ANALYSIS OF DENTIST EXPERT SYSTEM SOFTWARE IN DENTAL CARIES DETECTION BY PATIENTS .....	172
22. DIAGNOSIS OF DENGUE HEMORRHAGIC FEVER BASED ON LABORATORY TEST OF SEROLOGY AND PCR FROM SUSPECT IN HOSPITAL.....	173
23. THE ROLE OF SOCIAL CAPITAL AND COMMUNITY PARTICIPATION IN CASE DETECTION RATE OF TUBERCULOSIS: EVIDENCE FROM INDONESIA .....	174

24. CUSTOMER SATISFACTION ON BASIC MEDICAL SERVICES AT HEALTH CENTER IN EAST JAKARTA - 2016 .....	175
25. SYSTEMATIC REVIEWS OF FOOD SNACKS SCHOOL CHILDREN.....	176
26. MACRONUTRIENT INTAKE BASED ON REGION CHARACTERISTICS IN CHILDREN UNDER-FIVE YEAR, HEALTH CENTRE, TANGERANG DISTRICT.....	177
27. INFORMATION SYSTEMS TO SUPPORT TRIAS UKS IN HEALTH OFFICE OF KLATEN REGENCY.....	178
28. ANALYSIS OF IMPLEMENTATION READINESS REGULATION OF SEMARANG CITY NUMBER 3 OF 2013 ON NO SMOKING AREA IN DIPONEGORO UNIVERSITY.....	179
29. MEDICAL SOLID WASTE HOSPITAL MANAGEMENT IN MEDAN CITY .....	180
30. THE EFFECT OF EDUCATION TOWARD TEACHER'S BEHAVIOR OF PREVENTING BULLYING IN ELEMENTARY SCHOOLS OF PALU .....	181
ACKNOWLEDGMENT .....	Error! Bookmark not defined.



**KNOWLEDGE OF ADOLESCENT ABOUT FAMILY PLANNING AND REPRODUCTIVE HEALTH (PRIMARY STUDY ON JUNIOR AND SENIOR HIGH SCHOOL IN BREBES AND PEMALANG, CENTRAL JAVA, INDONESIA)**

Sri Achadi Nugraheni<sup>1</sup>.; Martha Irene Kartasurya<sup>1</sup>;  
Hastaningsakti<sup>2</sup>; Ani Margawati<sup>3</sup>; Ike Johan<sup>4</sup>, Najib<sup>5</sup>

<sup>1</sup> Faculty of Public Health, Diponegoro University, Semarang, Indonesia

<sup>2</sup> Faculty of Psychology, Diponegoro University

<sup>3</sup> Faculty of Medicine, Diponegoro University

<sup>4</sup> Faculty of Health Sciences, Universitas Pesantren Tinggi Darul Ulum

<sup>5</sup> The National Population and Family Planning (BKKBN) of Central Java

**\*Corresponding Author :** Nugraheni, S.A,  
s.a.nugraheni@gmail.com

**Abstract**

**Background:** Knowledge of adolescent about family planning and reproductive health in Indonesia was lacked. There were many teenagers who did not know how to maintain good reproductive health. This study conducted to describe knowledge of adolescent about family planning and reproductive health in Brebes and Pemalang, Central Java.

**Method:** This study utilized the descriptive study. Population of this study junior and senior high school students, 464 students in Brebes District and 414 students in Pemalang District.

**Results:** It was found that in Brebes District 56,9% respondents did not know properly about family planning and adolescent reproductive health. In Pemalang District 56,1% respondents did not know properly about family planning and adolescent reproductive health.

**Conclusion:** The results demonstrate that prior knowledge about family planning and adolescent reproductive health was lacked. Recommendation to improve risk of Maternal Mortality Rate is a reproductive health education with early intervention in young junior high school or high school as one of strategic actions to improving knowledge and minimize incidence of teenage pregnancy in Brebes and Pemalang, Central Java.

**Keywords:** Education, adolescent, teenagers, reproductive health, family planning.

## STRUCTURED-MODULE EVALUATION AS A KNOWLEDGE IMPROVEMENT EFFORTS AMONG PEOPLE LIVE WITH HIV/AIDS NUTRITION IN SEMARANG

Ani Margawati<sup>1</sup>, Aminarista<sup>2</sup>, Diana NurAfifah<sup>3</sup>

<sup>1,3</sup> Lecturer at Dept of Nutrition Science, Faculty of Medicine, Diponegoro University

<sup>2</sup> Nutritionist at Pesawahan Community Health Centre, Purwakarta District, West Java

\*Corresponding Author: margawati@yahoo.com

### ABSTRACT

**Background:** Decreasing of nutrition status among people with HIV AIDS will increasing infectious risk dan decreasing quality of life among them. Determinant of the worse of nutrition status such as less of food intake, absorption failure, nutrition metabolism, oprtunistic infection, and also less of physical activity. The aim of this reseach was how impact of nutrition education among people with HIV AIDS through structure modul to increase knowledge, attitude changing, and food pattern among people with HIV AIDS in Semarang.

**Method:** Population study was people with HIV AIDS in Semarang, then, the subject of the study was members of peer group in BKPM Semarang. Design study was pre-post test design, and data were collected before and after intervention.

**Results:** This research found that the nutrition knowledge among subject had changing after got modul intervention. The subject of study mention that they rarely put attention about nutrition of food, since the appetite decrease significantly after they got the HIV AIDS. The subject mentioned that they were very appreciate since they read the modul they got knowledge and can change their behaviour especially about food intake.

**Conclussions:** This research suggested that need more attention to treat people with HIV AIDS particularly about their food intake, nutrition status.

**Keywords:** People with HIV AIDS, structured module, nutrition educatiiom.

# **STRUCTURED-MODULE EVALUATION AS A KNOWLEDGE IMPROVEMENT EFFORTS OF PLWHA (PEOPLE LIVE WITH HIV/AIDS) NUTRITION AND DIET IN SEMARANG**

Ani Margawati<sup>1</sup>, Aminarista<sup>2</sup>, Diana NurAfifah<sup>3</sup>

<sup>1,3</sup> *Lecturer at Dept of Nutrition Science, Faculty of Medicine, Diponegoro University*

<sup>2</sup> *Nutritionist at Pesawahan Community Health Centre, Purwakarta District, West Java*

*Presenting Author [margawati@yahoo.co](mailto:margawati@yahoo.co)*

## **ABSTRACT**

Decreasing of nutrition status among people with HIV AIDS will increasing infectious risk dan decreasing quality of life among them. Determinant of the worse of nutrition status such as less of food intake, absorption failure, nutrition metabolism, oprtunistic infection, and also less of physical activity. Intake of macro and micro nutrition are also factors should be need to care among people with HIV AIDS, since have correlatio with morbidity and imunosupresif effect. The aim of this reseach was how impact of nutrition education among people with HIV AIDS through structure modul to increase knowledge, attitude changing, and food pattern among people with HIV AIDS in Semarang.

Population study was people with HIV AIDS in Semarang, then, the subject of the study was members of peer group in BKPM Semarang. Design study was pre-post test design, and data were collected before and after intervention. Variable of study was characteristic among respondents, knwoledge, attitude, length of disease, food pattern, and nutrition status. Intervention was giving through counselling to subjects with modul

This research found that the nutrition knowledge among subject had changing after got modul intervention. The subject of study mention that they rarely put attention about nutrition of food, since the appetite decrease significantly after they got the HIV AIDS. The subject mentioned that they were very appreciate since they read the modul they got knowledge and can change their behaviour especially about food intake.

This research suggested that need more attention to treat people with HIV AIDS particularly about their food intake, nutrition status.

Key notes: People with HIV AIDS, structured module, nutrition education

## **INTRODUCTION**

The development of HIV and AIDS wassues were increasingly worrying both from the quantitative and qualitative. Not surprwasingly, the problem of HIV and AIDS has become an epidemic in nearly 190 countries. Currently, Indonesia was no longer classified as a low prevalence country, but has entered into a concentrated epidemic with more than 5% of certain populations in some cities and regions in Indonesia which have HIV.<sup>1</sup>

Since it was first discovered in 1987 until September 2014, HIV AIDS was spread in 386 (78%) of the 496 districts / cities in all provinces of Indonesia. Estimates of people with HIV and AIDS in Indonesia in 2012 was as much as 591 823. From data on the number of cases reported, each year people with HIV were increasing, while the number of AIDS patients had decreasing.<sup>2-3</sup>

Nearly 50% of PWHIV were at risk of developing the condition malnutrition.<sup>4</sup> Fayasari's research got that 25% of PWHA got malnutrition.<sup>5</sup> Low serum concentration of vitamin C, E and Zinc were found in people with HIV infection<sup>6,7</sup> causing the increasing pace of the disease and the incidence of mortality. PWHA food intake was low on research Putri.<sup>8,9</sup>Support was one of the driving factors that influence a person's behavior in making health action. Family support for PWHA can increase the energy intake, live survival, CD4 cell amount, adherence to treatment and the numbers mortality.<sup>10</sup>

PSG (Peer Support Groups) was a support group for PLWHA. PSG consist of ODHA (PWHA) and OHIDHA (PLWHA) who gathered to support each other. PSG plays role in improving the quality of live on PWHA because it affects to their confidence, knowledge, services access, preventive behavior and other positive activities.<sup>11</sup>

Modules as system of organizing the educational process was structured so that participants can learn systematically to achieve their desire.<sup>12</sup>Modul with a language that was easily understood and can be learned at home were expected to improve knowledge and attitudes that will be able to change the practices of a good diet, especially for people with HIV-AIDS. Based on these problems, researchers wanted to examine the study of knowledge, attitudes, and eating patterns in PWHA further. Based on the study it can be arranged as tools of PWHA to improvethair knowledge and change their attitudes that affect on dietary changes of people with HIV as well as improving their nutritional status so that it can boost their immunity.

## **RESEARCH METHOD**

This research was conducted at KDS Arjuna Plus BKPM SemarangResearch and Development (R & D) method,it was the method of research to produce a particular product, and test the effectiveness of the product. Products mentioned in this study was a structured module to improve

the nutritional knowledge, attitude change, and diet of PWHA.

Before the manufacture of modules, a preliminary was conducted to determine the characteristics and understanding of people with HIV regarding the nutrient. Understanding of people with HIV on nutrition known through Focus Group Discussion (FGD) to 6 selected respondents and depth interviews with 5 selected main informant (MI1-5), consist of 4 males and 2 females. According to body mass index (BMI), two of them have thin body, and others were normal. Proper and module evaluation conducted by the FGD against PWHA selected, namely actively join the peer support group (PSG) more

than one year, not illiterate, age > 18 years. Evaluation modules were also rated by a score of knowledge increasing and attitudes of PWHA of PSG Arjuna Plus.

The population was a PSG participant of BKPM Semarang, while the random sampling technique was used to determine the number of research subjects. The research method was done by using a combination of qualitative and quantitative methods. Quantitative data was collected to collect data characteristics of respondents and the intake of food. Stages of research including research permits, FGD, quantitative data collection, drafting module, test module.

## RESULTS AND DISCUSSION

### *Respondent characteristic*

**Table 1. Comparison of Adequacy of Energy and Protein Levels in Two Categories Nutritional Status**

Macro Nutrient	Thin				Normal			
	Good (≥100%)	Adequate (80-99%)	Low (70-80%)	Deficit (<70%)	Good (≥100%)	Adequate (80-99%)	Low (70-80%)	Defisit (<70%)
Protein	1	1	0	0	2	1	1	0
Energy	2	0	0	0	0	4	0	0

Table 1 showed that the main informant of thin category has a good energy sufficiency and adequate, whereas the normal category, there was one person with less energy adequacy. All informants of thin category has good protein adequacy, while all the normal categories informants have adequate protein.

**Table 2. Comparison of Adequacy Levels of Vitamin C, Vitamin E and Zn in Two Categories Nutritional Status**

Micro nutrient	Thin			Normal		
	Adequate (>100-<200%)	Less (<100%)	Over (> 200%)	Adequate (>100-<200%)	Less (<100%)	Over (> 200%)
Vitamin C	1	1	0	2	1	1
Vitamin E	0	2	0	0	4	0
Zn	0	2	0	0	4	0

Table 2 shows that the main informant thin category has sufficient vitamin C and less, while the normal category informant has sufficient vitamin C in the adequate category (2 persons), less (1 person) and over (1 person). Adequacy of vitamin E and zinc in all categories of normal and thin category were still less of the adequacy criteria.

***Understanding of nutrition on the people living with HIV***

Ignorance about the benefits of monitoring the nutritional status makes the informant do not need to know their nutritional status. Detail informations were clearly needed to determine the importance of nutrition for the body, which raised the self-awareness to make efforts in the form of nutritional monitoring nutritional status and fulfillment of nutritional adequacy.

Awareness of the benefits of nutritious foods encourages the informants to meet the nutritional adequacy. Some of health workers both from outside and inside BKPM trying to give some advices to achieve optimal health status. Nevertheless, the fulfillment of micronutrients adequacy had not been optimal.

The obstacles which were faced by the informants in the fulfillment of the nutritional adequacy was about a description from the health workers which not detail. The high cost of some food commodities make the main informants feel unable to meet the nutritional adequacy.

***Structured-module as nutrition knowledge improvement***

The results of the FGD feasibility modules gained some input, those were images in modules were clarified and enlarged, the color of the image was made become clewerer, the module was printed in form of book to make it more simple and attractive. Overall module can be accepted by the informant FGD because the explanation about nutrition and its relation to HIV AIDS can be understood. In addition, informants also more understand about the nutrition by reading a module given.

***Respondensts' Nutrition Knowledge Post Modul Intervention***

Behavior changing of a person can be acknowledged through the knowledge because the individual perceptions stage, provides room for him to think about and consider for everything he would do.<sup>12</sup> Also with PLWHA, knowledge will affect how they will act in taking decisions on health including nutrition.

Opinions on the nutritional benefits among the main informants on

the normal nutrition category and skinny was not significantly different. Both, considered that the benefits of eating nutritious food was for body to be healthy. MI5 by category skinny did not know the nutritional benefits due to lack of education. Almost every event of PSG, MI5 accompanied by their children as a health translators. Knowledge about the benefits of these nutritious foods encourage the informants to meet the nutritional adequacy.

MI4 was ever briefed about nutritious of foods were a healthy food, clean, well-cooked, but the explanation were not detailed. Related to food hygiene, MI2 and MI3 did not know why they should not eat food that was half-cooked, because there had been no details explanation about it.

A health officer said that, nutrition brief message will be given especially if the main informants experienced the weight loss or endurance. Initially health officer will identify the problem of weight loss.

Monitoring the state of nutrition by nutritionits of BKPM was based only on a body weight. In addition, health workers will not do counseling on the benefits of monitoring the nutritional status, so that the weight measurement was ignored by the main informants. MI1 cited the benefits of nutritional monitoring to determine whether or not the body was health, but the weight loss was not significantly overlooked by the informant.

## **CONCLUSIONS**

The module has an influence on increasing the PWHA knowledge and changes in eating behavior, because the module as a substitute for

counseling and contains the importance of nutritional monitoring. PSG contribute to fulfill the nutritional adequacy. Through PSGmain informants received information about the good nutrition both from health workers and their peer.

## **References :**

1. UNAIDS. The Gap Report. Geneva (2014).
2. Ditjen P2PL. 2013. Laporan Situasi Perkembangan HIV & AIDS di Indonesia Tahun 2013.
3. Dinkes Provinsi Jawa Tengah. Profil Kesehatan Propinsi Jawa Tengah Tahun 2013. Semarang: Dinas Kesehatan Provinsi Jawa Tengah. Semarang (2014).
4. M. S. Nnyepi. The Risk of Developing Malnutrition in People Living With HIV/AIDS: Observation from Six Support Group in Botswana. S Afr J Clin Nutr. 2, 22 (2009).
5. A. Fayasari. Hubungan antara Stres dengan Kebiasaan Makan dan Fungsi Imun pada Penderita HIV/AIDS di Klinik Edelweis RSUP DR Sardjito Yogyakarta. Yogyakarta(2011).
6. A. Malviya, H. Hasan, A. Hussain. Correlation of CD4+ T Cell Count with Serum Zinc, Copper and Selenium in HIV Positive Individuals. The Internet Journal of Epidemiology. 6, 2 (2008).
7. C. B. Stephensen, G. S. Marquis, R. A. Jacob, L. A. Kruzich, S. D. Douglas, and C. M. Wilson. Vitamin C and E in Adolescents and Young Adults with HIV Infection. Am J Clin Nutr. 83, 870-9 (2006).

8. P. K. Drain, R. Kupka, F. Mugusi, W. W. Fawzi. Micronutrients in HIV-Positive Persons Receiving Highly Active Antiretroviral Therapy. *Am J Clin Nutr.* 85: 333-45 (2007).
9. P. M. S. Putri. Perilaku Makan Sebagai Pemenuhan Asupan Nutrisi Dalam Rangka Meningkatkan Imunitas di BKPM Wilayah Semarang. Semarang: UNDIP(2013).
10. C. Serrano, R. Laporte, M. Ide, Y. Nouhou, P. De Truchis, Rouveix E et al. Family Nutritional Support Improves Survival, Immune Restoration and Adherence in HIV Patient Receiving ART in Developing Country. *Asia Pac J Clin Nutr.* 1, 19 (2010).
11. S. Handayani. Peran Dukungan Sebaya terhadap Mutu Hidup ODHA di Indonesia Tahun 2011. UHAMKA, Jakarta (2011).
12. M. Asikin. Teori Belajar. IKIP Semarang Press, Semarang (2005).