



# Preventing Infection in Healthcare

1

# CHALLENGE IN IMPLEMENTING INFECTION CONTROL IN PUBLIC HEALTH (SABAH)

21 September 2018

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2



# Outline

- ▶ Chronology of implementation
- ▶ The implementation
- ▶ Challenges
- ▶ Opportunity for improvement

# Chronology (May 1989)

BAHAGIAN PERKHIDMATAN PERUBATAN  
KEMENTERIAN KESIHATAN MALAYSIA

Bil. (32) dlm. KKM.87(40/5)

Tarikh: 1 Julai 1989

Yg. Hg. Dato'(Dr.) Abdullah bin Abdul Rahman  
Ketua Pengarah Kesihatan Malaysia

Yg. Hg. Dato',

Pekeliling Ketua Pengarah Kesihatan Malaysia  
Garis panduan 'Guidelines on Control of  
Hospital Acquired Infections'

Adulah saya dengan segala hormatnya merujuk kepada perkara tersebut di atas.

2. Bersama-sama ini disertakan sesalinan Pekeliling Ketua Pengarah Kesihatan mengenai 'Guidelines on the Control of Hospital Acquired Infections' untuk kelulusan dan tandatangan Dato'.

3. Dengan ini juga disertakan sesalinan buku garis panduan 'Guidelines on Control of Hospital Acquired Infections' untuk salutan Dato'.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(DATO'(DR.) JAGJIT SINGH) ..  
Pengarah Perkhidmatan Perubatan,  
Bahagian Perkhidmatan Perubatan,  
Kementerian Kesihatan Malaysia.

TM/HC.



KEMENTERIAN KESIHATAN MALAYSIA.  
(MINISTRY OF HEALTH MALAYSIA)  
JALAN CENDERASARI,  
50590 KUALA LUMPUR

Telefon: 2985174  
Kawad: MINMEWEL KUALA  
Telek: 4x 28102

Ruj. Tuan

Ruj. Kami (32) dlm. KKM.87

Tarikh: Mei 1989

Pengarah Perkhidmatan Perubatan & Kesihatan,  
Negeri \_\_\_\_\_

Pengarah, Yayasan/Institusi,  
\_\_\_\_\_

Penguasa Perubatan,  
Hospital Besar,  
\_\_\_\_\_

Pegawai Perubatan Yang Menjaga,  
Hospital Daerah,  
\_\_\_\_\_

Dato' /Tuan/Puan,

Pekeliling Ketua Pengarah Kesihatan Malaysia Bil. ....  
Garis panduan 'Guidelines on Control of Hospital  
Acquired Infections'

## 1. TUJUAN

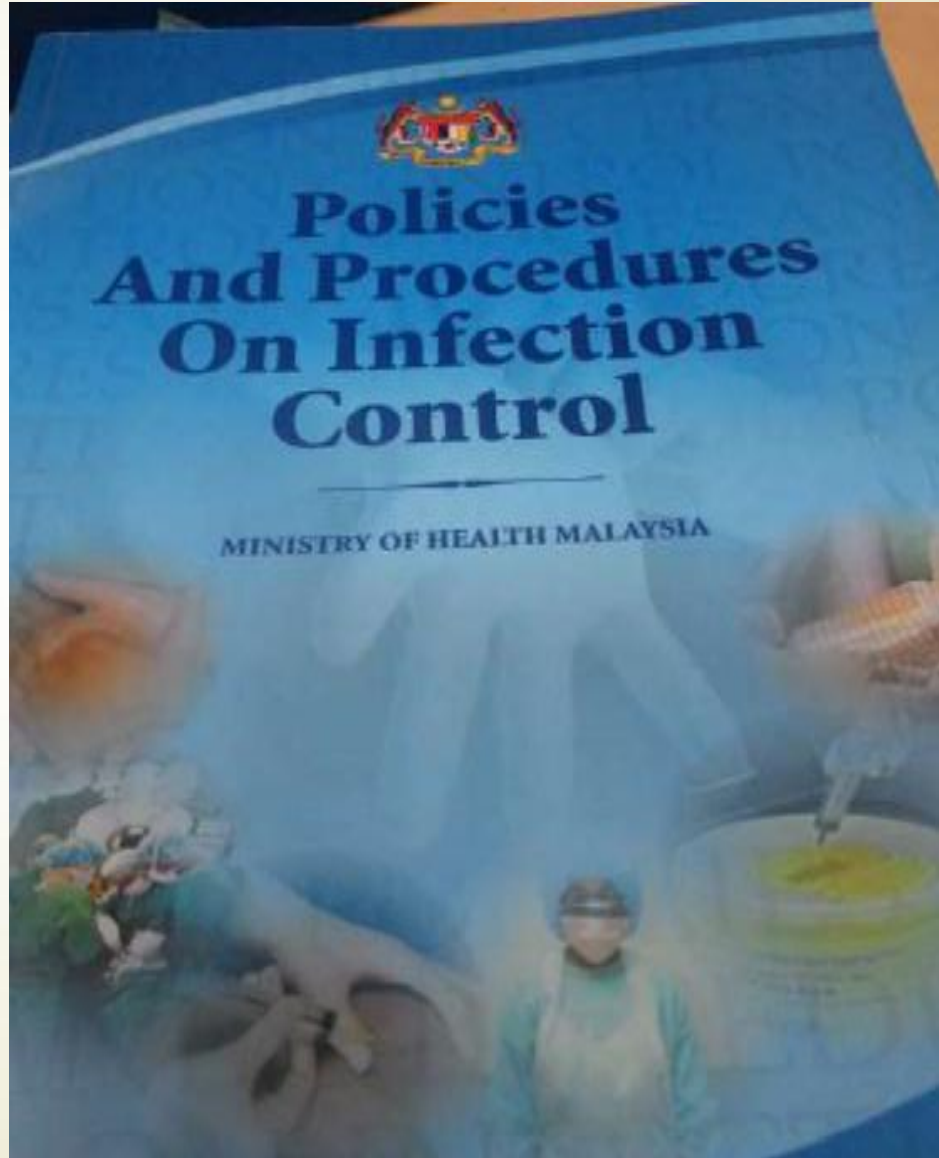
Pekeliling ini bertujuan untuk memperketatkan kawalan jangkitan-jangkitan yang berpunca dari hospital-hospital dan dengan ini mengurangkan kejadian jangkitan.

## 2. LATARBELAKANG

2.1. Jangkitan-jangkitan yang berpunca dari hospital-hospital adalah satu masalah yang di hadapi di hospital-hospital. Adalah di anggarkan bahawa di antara 5% hingga 15% dari pesakit dalam kalangan jangkitan-jangkitan yang berpunca dari hospital-hospital. Masalah ini boleh di elakkan sekiranya setiap hospital mempunyai rancangan-rancangan dan garis panduan-garis panduan untuk menjadikannya.

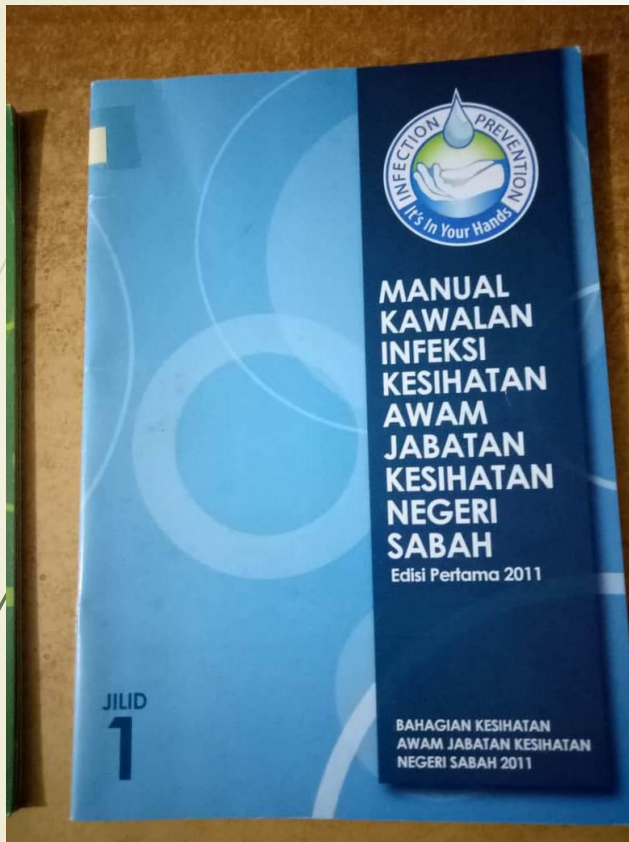
# Chronology (2009/2010)

**Quality Medical  
Care Section,  
Medical Development  
Division, MOH**  
Prepared in 2009  
Printed in 2010  
2nd edition



# Chronology (Sabah 2010-2011)

- The 1st implemented in Malaysia



# Chronology (BPKK 2013)



# Then.....

- Briefing by KKM in 2013
- Implementation in 2013
- Supervision by KKM on 2016
- KPK Circular (policy) ??



# The Implementation (Resource)

- The facilities
- Distribution of Link Nurse With Post Basic Infection Control
- Clinics Audited
- Allocation
- Training (competency)

# The Facilities

- ▶ Number of facility in public health
- ▶ Location – for the purpose of monitoring/ supervising
- ▶ Structural issue

# The Facilities (Distribution by District)

Bil	Daerah	K1M	KD	KK	KKIA	Grand Total
1	Beaufort	2	11	4	1	18
2	Beluran		5	11	1	17
3	Keningau	1	13	5	1	20
4	Kinabatangan			4	1	5
5	Kota Belud	1	13	3	1	18
6	Kota Kinabalu	9	5	5	2	21
7	Kota Marudu	2	10	2	1	15
8	Kuala Penyu		2	2	1	5
9	Kudat	1	5	8	1	15
10	Kunak		2		2	4
11	Lahad Datu	3	12	6		21
12	Nabawan		2	4		6
13	Papar	1	8	4	1	14
14	Penampang	2	5	2		9
15	Pitas	1	7	4	1	13
16	Putatan	2	1	1		4
17	Ranau		10	7	1	18
18	Sandakan	7	8	7	1	23
19	Semporna	1	8	2		11
20	Sipitang		4	4	1	9
21	Tambunan	1	8	2	1	12
22	Tawau	3	5	6	2	16
23	Tenom		8	3	1	12
24	Tongod		1	5		6
25	Tuaran	2	13	5	1	21
	<b>Grand Total</b>	<b>39</b>	<b>166</b>	<b>106</b>	<b>22</b>	<b>333</b>

## The Facilities (Structure & Design)

Structure	KD	KK	KKIA	Total	%
Cabin	2			2	
Kayu	73	38	1	112	<b>38.1%</b>
Kayu (Lupus)	1	1		2	
Kayu + Batu	4	18	3	25	8.5%
Konkrit	80	36	17	133	45.2%
Konkrit (On Off Design RMK)		3		3	
Konkrit (Standard Design RMK)	5	10		15	5.1%
Konkrit (Sewa lot kedai)	1		1	2	
<b>Grand Total</b>	<b>166</b>	<b>106</b>	<b>22</b>	<b>294</b>	

- Ventilation - airborne transmission
- Water supply
- Store for Clinical waste

# The Link Nurses With Post Basic (District/ Dec 2017)

No.	District	PPP	SN	Total
1	Beluran		2	2
2	Keningau		2	2
3	Kinabatangan	1		1
4	Kota Kinabalu	2	3	5
5	Kudat		1	1
6	Kunak		1	1
7	Lahad Datu		1	1
8	Nabawan		2	2
9	Papar		1	1
10	Penampang		1	1
11	Pitas		1	1
12	Putatan	1	1	2
13	Sandakan	1	2	3
14	Tambunan		2	2
15	Tawau		2	2
16	Tuaran		1	1
	<b>Total</b>	<b>5</b>	<b>23</b>	<b>28</b>

Without Post Basic LN	
No.	District
1	Sipitang
2	Kuala Penyu
3	Beaufort
4	Tenom
5	Kota Belud
6	Ranau
7	Kota Marudu
8	Tongod

# What To Do - Link Nurse

- ▶ Urusetia Jawatankuasa Kawalan Infeksi di KK
- ▶ Latihan – *echo-training & awareness*
- ▶ Audit Internal 2 kali setahun - Sediakan jadual & laporan audit dalaman
- ▶ Pelaksanaan *Patient Safety, Incident Reporting (IR) & Needle Stick Injury (NSI)*
- ▶ Dokumentasi inventori
- ▶ Pemantauan di KD & K1M
- ▶ Sentiasa update penyelia & MOIC

# Prioritization

- A lot of programs to be implemented in the clinic
- Should be by S/N of PPP ?
- Interest of the supervisor
- MCH vs. Primary Care

## Primary Care Programmes

### Perkhidmatan Bergerak (Mobile), Outreach & Community Empowerment

- Klinik Bergerak
- Klinik Bergerak 1 Malaysia
- PLKN
- SPKA
- Perkhidmatan kesihatan di Depo Tahanan, Lokap Berpusat & Rumah Jagaan Warga Emas
- Perkhidmatan saringan kesihatan (Kem Perubatan/ Permohonan Agensi Luar)
- Panel Penasihat Klinik Kesihatan

### Pengurusan & Operasi Klinik

- eMasa
- Extended Hours
- eGL
- Lunch Hours
- Penempatan Pegawai Perubatan Siswazah
- Database Peg Perubatan & FMS
- Pengurusan Aset
- NBOS10 (1MCSRS)
- Family Doctor Concept
- Peg Perubatan Y/M (MOIC)
- Pengurusan **Aduan**

### Perkhidmatan Kecemasan & Pre\_Hospital Care

- Perkhidmatan Kecemasan
- Perkhidmatan Ambulan
- Pasukan Perlindungan Perubatan
- BLS utk Paramedik

### Perkhidmatan Sokongan Klinikal (Makmal/ X-Ray, Rehab etc)

- Perkhidmatan Farmasi
- Perkhidmatan Makmal
- Perkhidmatan Radiologi
- Perkhidmatan Rehabilitasi

### Kualiti, Pengurusan Data & Informattik

- KPI & QAP
- TPC- OCHIS
- Patient Safety
- **Infection Control**
- Akreditasi
- Lean Healthcare
- Pengurusan Reten
- Jawapan Parlimen & DUN

### Perkhidmatan Primer

- NCD
- Klinik Berhenti Merokok
- Pemeriksaan Kendiri
- Klinik 1 Malaysia
- BSSK/ REAP
- Routine Medical Check-up
- P5VS & Pain Free
- Wound Care
- Health Promoting Clinic (HPC)

# 10 ELEMENTS INFECTION CONTROL AUDIT

BIL	ELEMEN	WEIGHTAGE
A	Kebersihan Tangan	25
B	Alat Pelindung Diri (PPE)	20
C	Disinfeksi dan Sterilisasi	10
D	Pengurusan Linen	5
E	Pengurusan Sisa Klinikal	10
F	Pembersihan Persekitaran Dan Pengurusan Tumpahan (Spillage)	5
G	Pengurusan Kecederaan Tercucuk Jarum/ Benda Tajam	10
H	Etika Batuk	5
I	Pengendalian Spesimen	5
J	Latihan	5
	<b>PENCAPAIAN KESELURUHAN (%)</b>	<b>100</b>



- **Cross Audit**
- **Internal & external audit**

# Allocation

- ▶ Peruntukan Dasar Baru 2014 (Perluasan Program Kesihatan Awam) - Memperkukuhkan Amalan Kawalan Infeksi **RM 31,200.00**
- ▶ Peruntukan Dasar Baru 2015 (Perluasan Program Kesihatan Awam) – Peruntukan Bagi Mengurangkan Infeksi/ Jangkitan DI Kalangan Anggota Klinik & Pesakit Dengan Mengadakan Alatan Pencegahan Infeksi **RM 90,000**
- ▶ 2016 - RM90k
- ▶ 2017 – RM90k
- ▶ 2018 – RM90k

# Allocation

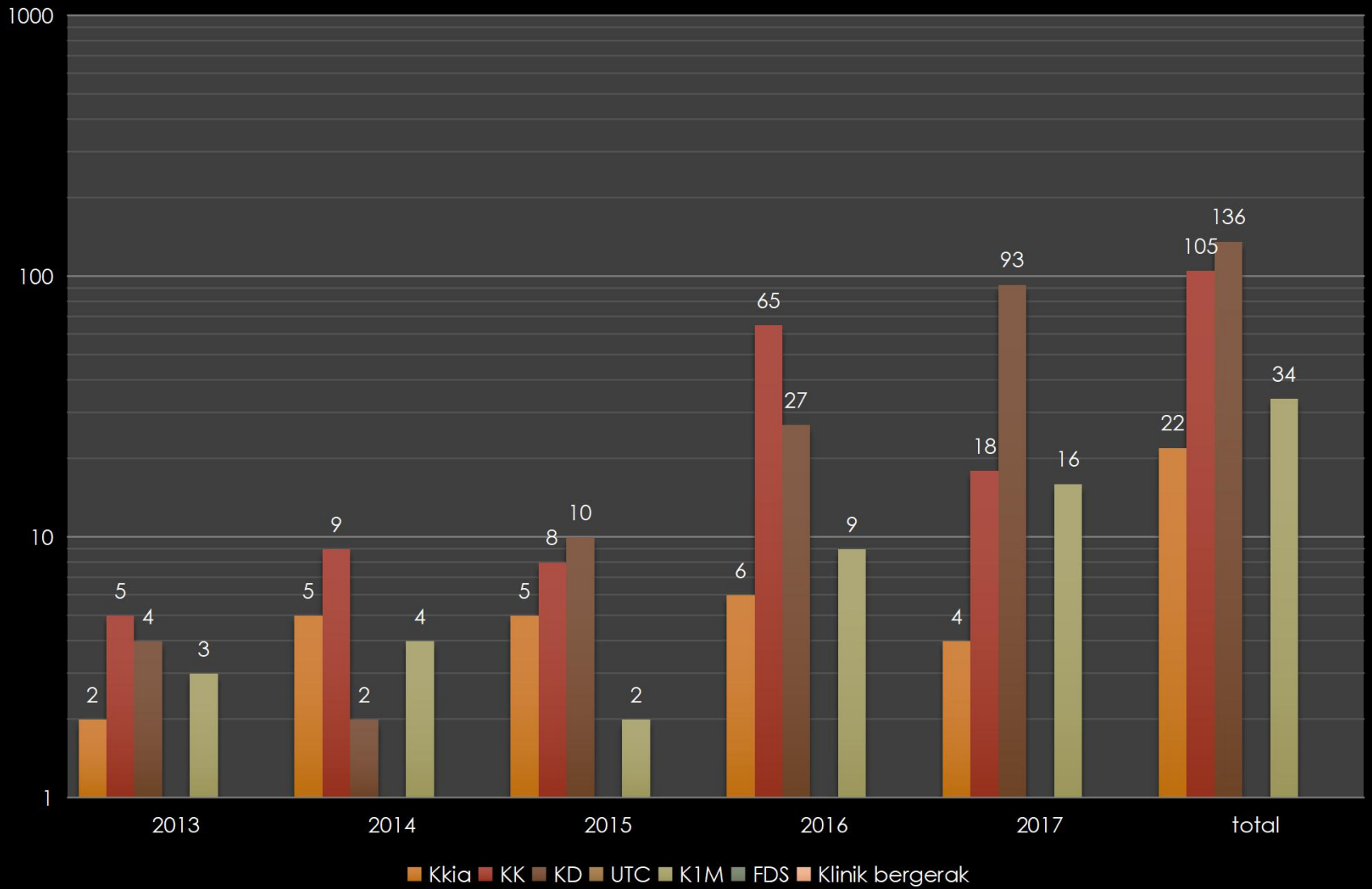
- No maintenance service for all clinic (concession/ contract)
- Operational allocation reduced every year
- Allocation for training (LDP) reduced every year

# Facility Audited: 2013 - 2017

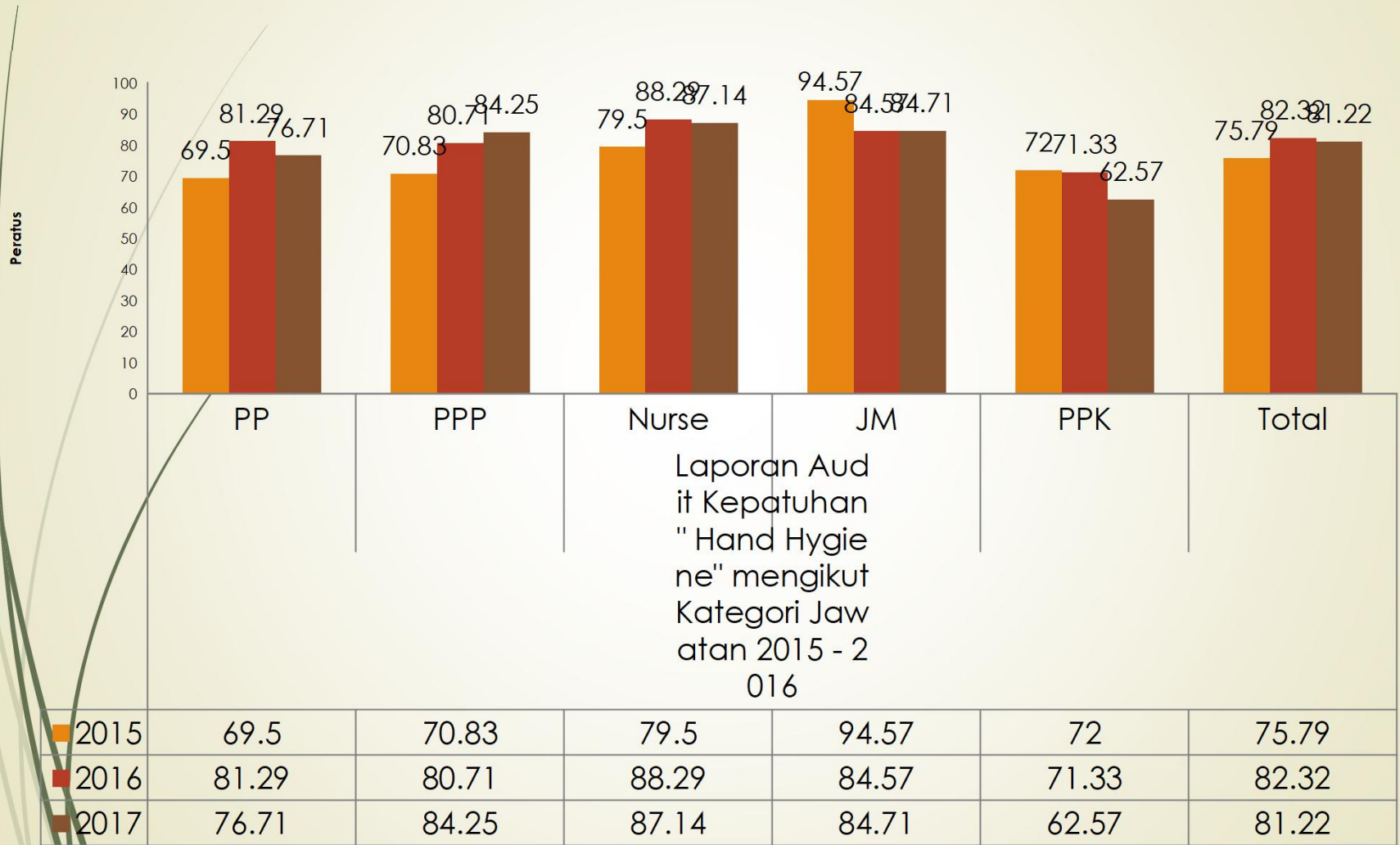
Tahun	KKIA	KK	KD	UTC	FDS	Mobile Clinic	K1M
Deno	22	105	168	2	2	23	39
2013	2(8.6%)	5(4.7)%	4(2.3%)	0	0	0	3(7.5%)
2014	5(21.7%)	9(8.7%)	2(1.1%)	0	0	0	4(10%)
2015	5(51.7%)	8(7.7%)	10(5.9%)	1(50%)	0	0	2(5%)
2016	6(26.0%)	65(61.1%)	27(16.0%)	0	0	0	9(22.5%)
2017	4(18.1%)	18(17.1%)	93(55.0%)	0	0	0	16(40%)

- Internal & external audit
- Involved travelling cost (external audit)

# Clinics Audited: 2013- 2017



# Hand Hygiene Compliance 2015 - 2017



# Training of Infection Control : Primary Health Care Facility



# Challenges

- ▶ Policy (with money)
- ▶ The outcome measurement for success
  - ▶ No facility audited > 80% (process)
  - ▶ HH Compliance (process)
  - ▶ Occurrence of outbreak?
  - ▶ No of case infected (sourced) from clinic ?
- ▶ Monitoring & supervising
  - ▶ related to a lack of monitored systems, leadership and policy
- ▶ Prioritization: Heavy burden of healthcare ( & programs) on very limited HCWs

# Challenges

- ▶ Badly structured and equipped facilities
  - ▶ Risk of airborne transmission (TB)
  - ▶ Need new building ? .
  - ▶ Cost of renovation ?
- ▶ Healthcare worker attitudes- e.g. HH adherence <40%, (WHO)
- ▶ Improper handing over among HCW (high turn over)

# Opportunities

- ▶ Study on Knowledge, Attitude & Practice



## **An Analysis of Knowledge, Attitude and Practices regarding Standard Precautions of Infection Control and Impact of Knowledge and Attitude of ICU Nurses on Self-reported Practices of Infection Control**

<sup>1</sup>Ginny Kaushal, <sup>2</sup>Prakash Doke, <sup>3</sup>Aejaz Shah, <sup>4</sup>Vivek Verma

*Indian Journal of Medical Microbiology, (2007) 25 (3):181-7*

*Special Article*

## **IMPACT OF EDUCATION ON KNOWLEDGE, ATTITUDES AND PRACTICES AMONG VARIOUS CATEGORIES OF HEALTH CARE WORKERS ON NOSOCOMIAL INFECTIONS**

\*JB Suchitra, N Lakshmi Devi

984 Original article

## **Effect of an educational health program on the knowledge, attitudes and practices of healthcare workers with respect to nosocomial infections in the National Liver Institute, Egypt**

Gaafar M. Abdel-Rasoul<sup>a</sup>, Rabei A. Al Bahnasy<sup>a</sup>, Omaima A. Mohamed<sup>a</sup>, Azza M. Abdel-Aziz<sup>b</sup>, Wesam S. Mourad<sup>b</sup>, Marwa F. Youssef<sup>c</sup>

# Opportunities

- ▶ Integrated the element of IC during other supervision activities
- ▶ Operational allocation for training (instead of LDP)
- ▶ Reward for facilities with best practice/ achievement : eg ?? sent to conference

# Break the chain of infection

- 
- ✓ clean
  - ✓ contain
  - ✓ cooperate

# Thank You



30

