

## KMC IMPLEMENTATION IN DISTRICT HOSPITALS IN INDONESIA

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### Background

Preterm infants require special care in NICU and may spend days and weeks in incubator until clinically stabilized.<sup>1</sup> KMC, which can be used as a substitute of incubator, has been proven to be cost-efficient and effective to prevent preterm infant death, especially in a developing country like Indonesia.<sup>2</sup> This study aims to describe KMC implementation and its impact on LBW infants during hospitalization.

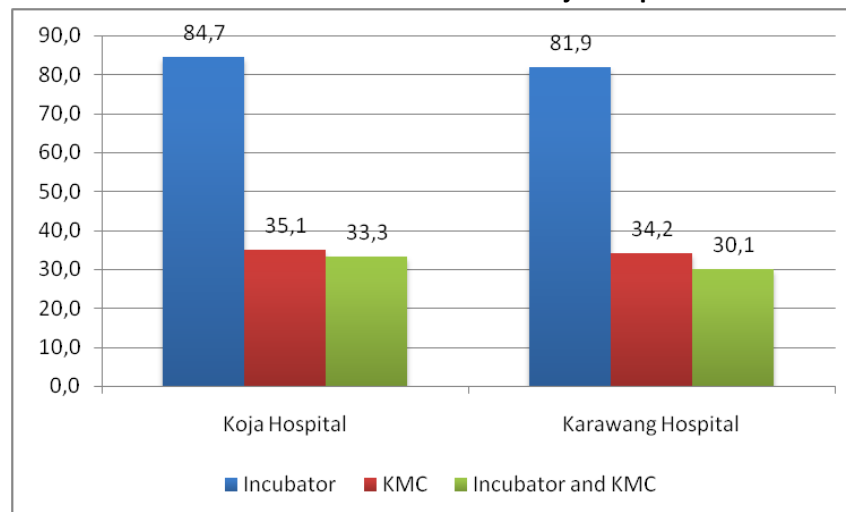
### Methods

A descriptive study was done involving two hospitals, Koja Hospital in Jakarta (n=111) and Karawang Hospital in West Java (n=193). Data of infants born in June to December 2015 were collected from medical records. Only infants whose weight was  $\leq 2200$  grams at birth were included in the study.

### Results

KMC practice in Koja was carried-out among 35.1% of infants weighing  $\leq 2200$  grams, whereas in Karawang it was done among 34.2%. Age of infants' mother hospitalized in Koja was similar to those in Karawang (mean of 28.2 years old  $\pm 7.3$  in Koja, and 28.1 years old  $\pm 7.4$  in Karawang). However, those who had KMC implemented in Koja were younger compare to Karawang (25.9% mothers were  $< 20$  years in Koja, whereas 9.8% mothers  $< 20$  years in Karawang). Age of mothers implementing KMC can be seen in Table 1.

Figure 1. Incubator and KMC method for LBW care in Koja Hospital and Karawang Hospital

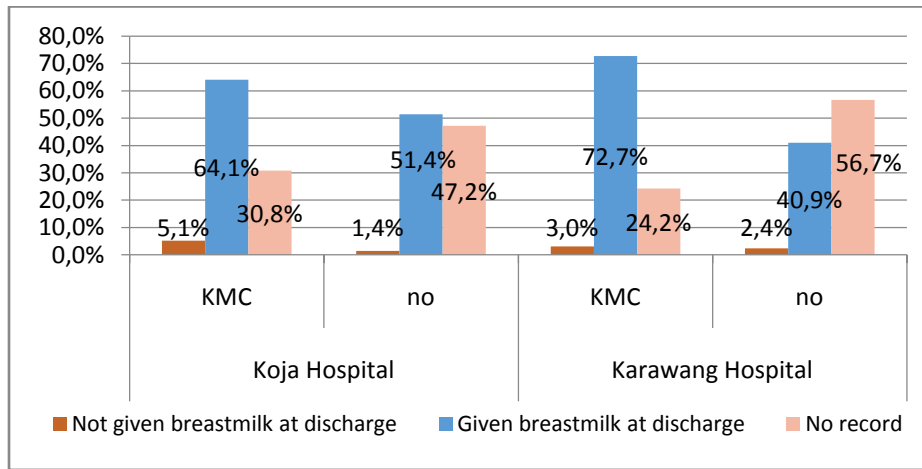


**Table 1. Characteristic of Infants with KMC**

	Koja Hospital (n=39)		Karawang Hospital (n = 66)	
	Mean(SD)	n (%)	Mean(SD)	n (%)
<b>Maternal age</b>	28.2 (7.3)		28.1 (7.4)	
< 20 years		7 (25.9)		6 (9.8)
20 – 35 years		15 (55.6)		43 (70.5)
> 35 years		5 (18.5)		12 (19.7)
<b>Referral status</b>				
Referral infant		10 (25.6)		2 (3.03)
In born Infant		29 (74.4)		64 (96.7)

Preterm infants with KMC were more likely to be breastfed at discharge compared to non-KMC infants. In Koja Hospital, breastfed at discharge among KMC infants were 64.1% compare to 51.4% who was not KMC. In Karawang Hospital, 72.7% KMC infants were breastfed at discharge vs 40.9% non-KMC infants.

**Figure 2. Breastfed at discharge (Koja Hospital and Karawang Hospital)**



Similar results were shown for infant weight gain; KMC infants had more weight gain than non-KMC infants. The percentage of weight gain infants with KMC were 84.2% compared to 66.7% non-KMC infants who had weight gain in Koja Hospital. In Karawang, the percentage of weight gain infants were 73.3% among KMC infants vs 0% among infants without KMC. Detail is describe in table 2.

**Table 2. Weight Differences (birthweight vs weight discharge) among 3 weeks infants in Koja Hospital and Karawang Hospital**

	Koja Hospital			Karawang Hospital		
	Weight gain	Weight loss	No progress	Weight gain	Weight loss	No progress
<b>KMC</b>						
Yes	84.2 %	10.5 %	5.3 %	73.3%	26.7%	-
No	66.7 %	33.3 %	0 %	0 %	100 %	-



## Conclusion

Although KMC implementation was not done consistently and optimally, benefit effect has already been shown regarding breastfeeding and infant weight gain for those KMC infants.

## References

1. El-Nagar S, Lawend J, Mohammed H. 2013. Impact of Neonatal Nurses' Guidelines on Improving Their Knowledge, Attitude and Practice Toward Kangaroo Mother's Care. *Journal of Natural Sciences Research* 2013, 3(7); 175-86.
2. MCHIP, USAID. *Kangaroo Mother Care Saves Newborns*. Fact sheet.