

# The Influence of Mother's Working Status on Exclusive Breastfeeding in the Jabodetabek Region

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**Abstract**—*This study aims to analyze the influence of mothers' working status and other factors on exclusive breastfeeding in the Jabodetabek region (District of DKI Jakarta, Bogor, Depok, Bekasi, Tangerang, South Tangerang, and Bekasi), due to the low coverage of exclusive breastfeeding in the region. The data used in this study are sourced from Susenas Kor Main Household Notes, Susenas Module Consumption/Food and Non-Food Expenditure, and Household Income/Receipts March 2016 for Jabodetabek area using logistic regression. The results of this study indicate that education, working status, and parity (number of children) significantly influence mother's tendency to exclusively breastfeed, whereas age, IMD, income, and region/living area have no significant effect on exclusive breastfeeding in the Jabodetabek region.*

**Keywords**—*Exclusive Breastfeeding, Working status, Age, Education, Parity, IMD, Income, Region of Residence*

## I. INTRODUCTION

The World Health Organization (WHO) and the United Nations Children Fund recommend breastfeeding without other supplements, or exclusive breastfeeding, for at least the first 6 months of life to suppress malnutrition, the number of sick babies, and infant mortality rate [1]. The Indonesian government has set a target of 80% exclusive national breastfeeding coverage by 2014, but unfortunately, the results of Indonesia's Demographic and Health Survey (SDKI) over the last 15 years show that national exclusive breastfeeding coverage did not reach the target [1]. Other data published by the Ministry of Health show the achievement of exclusive national Air Susu Ibu (ASI) in 2012 by 48.6%, 54.3% in 2013, 52.3% by 2014, and decreasing by 2015 to 41.9%, with the highest achievement at West Nusa Tenggara (78.9%), East Java (65%), and Lampung (57.3%), whereas the three lowest provinces are Central Kalimantan (15.8%), North Sumatra (20.3%) and DKI Jakarta (20.3%), and data for Papua are not yet available [2]. This is certainly apprehensive given that Jakarta is the capital of Indonesia.

In addition to its status as the nation's capital, Jakarta is also the largest megapolitan area in Southeast Asia, which means it also has high population growth and various urban problems to deal with. The economic expansion of DKI Jakarta resulted in the emergence of new satellite cities around Jakarta. Small towns that previously separated regionally then developed into a large and connected region to each other named Jabodetabek. Jabodetabek is the largest urban area in Indonesia, with an area of about 6,700 km<sup>2</sup>, the population in 2010 in Jakarta about 9 million people, and population in Debotabek about 18 million

people. The Jabodetabek area involves three provincial administrative regions: DKI Jakarta Province, Banten Province (including the districts of Tangerang and South Tangerang), and West Java Province (including the districts of Bogor, Bekasi, and Depok), with DKI Jakarta as the center and Debotabek as the hinterland. Jabodetabek is the center of national, economic, political, and socio-cultural development, as demonstrated by its population density and interregional spatial interactions [3]. The result of Badan Pusat Statistik (BPS) data of 2010 in Rustiadi [4] shows that Jabodetabek accounted for 25.52% of total national GDP in 2010, of which 17.92% was attributed to DKI Jakarta and 7.59% to Bodetabek. The above facts show that Jabodetabek as a metropolitan area has different characteristics compared with other cities or districts in Indonesia both spatially and socioeconomically. In the context of exclusive breastfeeding coverage, this may be one of the reasons why exclusive breastfeeding coverage in Jabodetabek is different or lower than in other regions.

The latest data from the Ministry of Health in 2016 on exclusive breastfeeding coverage by province show the value of exclusive breastfeeding coverage in Jabodetabek, West Java (representing the districts of Depok, Kab Bogor, and Kota Bogor) of 39.6%, Banten Province 35.8% (representing district of Tangerang, Tangerang, and South Tangerang), and DKI Jakarta Province 41.0%. The above data explain that the coverage of exclusive breastfeeding coverage in Jabodetabek is in the same range and is still far from the target of exclusive national breastfeeding coverage of 80%.

Geographical factors and traffic congestion that became the face of Jabodetabek daily do not allow nursing mothers to go home to breastfeed their babies. Workers in the Jabodetabek area include not only people living in the same area but also many commuters. This condition requires women workers to perform daily routines to reach the work site. For a working mother, it certainly causes physical fatigue coupled with time constraints, job stress, and lack of support in the workplace, which can decrease productivity, breast milk, and impact on the duration of breastfeeding. The above phenomenon causes many mothers to switch to formula milk. Basic Health Research Results of the Ministry of Health showed that in 2013, as many as 89.6% of working mothers provided supplementary food other than breast milk, such as formula, to their infants.

Previous research has showed that breastfeeding exclusively leads to both health and economic benefits, although, on the other hand, baby-feeding methods are also proven to have economic value for mothers. Working mothers are faced with a difficult choice to return to work and face

difficulties in seeking exclusive breastfeeding or focus on exclusive breastfeeding and stop working. This study was designed to examine the influence of mother's working status on exclusive breastfeeding in the Jabodetabek region.

## II. LITERATURE REVIEW

### A. *Breastfeeding Practices for Mothers Working in Jabodetabek Region*

The practice of exclusive breastfeeding in working mothers is very difficult. Mothers working in the formal sector are faced with time constraints and lack of availability of breastfeeding facilities at work, so much so that many working mothers turn to formula milk and stop exclusively breastfeeding [5], whereas those working in the informal sector are faced with lack of legal protection such as minimum wages, labor safety, and other labor rights due to the characteristics of the low-productive informal sector [6].

Jakarta labor conditions based on employment status in the formal and informal sectors since 2014 to 2016 show a trend that is in line with the above thinking, where the formal sector tends to decline whereas the informal sector shows an increase, although the number of formal sectors is much higher than the informal sector. The data show that, based on the total employment status of both men and women, the formal sector is still superior to the informal sector. In the informal sector, the percentage of female workers is higher than that of men and increases annually in the period 2014–2016, whereas in the formal sector, the percentage of male workers is higher than for women, although the data show a downward trend in the formal sector, men, and women [7].

Urbanization is cited as one of the causes of an increasing number of households depending on informal employment and non-permanent jobs with uncertain income and providing little or no protection for pregnant and lactating women. Mothers who are self-employed and some mothers working in the periphery are exposed to heavy and usually unprotected jobs for pregnant and lactating women [8]. Achmad, 1995 in [9], mentions that in some developing countries, low levels of education and skills force women to work in a highly exploitative informal sector with very low wages, unstable and long working hours, no paid leave, and lack of other social protection. Another opinion was put forward by Dwiantini, 1995 in [9] that women choose part-time or informal employment because of the awareness of the dual role of women as workers and as mothers responsible for domestic affairs and child-rearing.

Breastfeeding is highly time-costly for mothers, as a mother can spend about 16 to 19 h per week preparing for breastfeeding for a 6-month-old baby. Breastfeeding itself is also time-intensive, which puts pressure on working mothers and causes doubt for a mother to return to work after giving birth. Mothers will be burdened with the costs of entrusting children to daycare and household expenses, and sometimes for the sake of providing for households, the mother decides to reduce or stop breastfeeding altogether and decides to focus on work even in the informal sector [10]. The research shows that the fulfillment of exclusive breastfeeding rights among working mothers is far from expected, as neither the physical nor social environment is supportive of the mothers working to breastfeed, thus negatively affecting the working mother and her child [11]. Legal protections are needed to protect working

mothers to continue breastfeeding without being faced with the difficult choice of either working or providing the best nutrition for their babies. Duration of maternal leave and workplace protections for nursing mothers require government intervention to enforce labor regulations within both the government and private sector [12].

The Indonesian government has regulated legal protections for working mothers to support exclusive breastfeeding, but thus far, the coverage of exclusive breastfeeding in Jabodetabek is still far from the expected target. Therefore, it is important to know how maternal status and other factors influence exclusive breastfeeding in the Jabodetabek area.

### B. *The Determinants of Exclusive Breastfeeding*

Factors influencing health behavior according to Green and Kreuter's [13] theory are as follows: 1. *Predisposing factor*: a basic factor that encourages a person to behave in a healthy way, including socio-demography (age, education, gender, knowledge, socioeconomic level, etc.); 2. *Enabling factor*: a factor supporting someone to behave healthily, which includes health facilities, priorities and community/government commitments, and health-related skills; 3. *Reinforcing factor*: a strengthening factor that strengthens a person's healthy behavior and can be positive or negative depending on such factors as support of family and friends, community leaders, superiors and colleagues, and behavior of health workers. The determinants of exclusive breastfeeding in this research follow the above-mentioned factors.

**Working Status.** Balogun et al. [12] indicated that the type of work affected the practice of breastfeeding for a working mother. Mothers who work outside the home whether in the formal or informal sectors are less likely to breastfeed exclusively. The results of this study are also supported by Bai et al. [14], who explained that mothers who work formally are less likely to breastfeed exclusively compared with women who work informally. The results of Lindberg's research in 1996 in [15] showed a different conclusion, showing that breastfeeding is closely related to work intensity, so mothers working part-time tend to be more likely to initiate breastfeeding and breastfeed for a longer duration.

Rippeyoung and Noonan [15] explain that breastfeeding can impact the income of working mothers if they take a longer leave without severance or even decide to stop working after childbirth. Working mothers who decide to return to work once they finish breastfeeding will also be faced with the challenge of losing their service life, reducing opportunities for a job promotion, and the risk of diminished workability during desks, even the possibility of difficulty finding new jobs. This is what prevents working mothers from exclusively breastfeeding.

**Education of Mother.** The research by Balogun et al. [12] mentioned that education influences the practice of breastfeeding. Mothers with lower education tend not to exclusively breastfeed. Bai et al. [14] also mention that education is one of the decisive factors in providing exclusive breastfeeding to infants, where the higher the level of education, the greater the percentage of providing exclusive breastfeeding. A higher education level allows the mother to occupy a higher position, and the higher the position of the mother in the workplace, the easier it will be to manage the time and workload so that it is easier to breastfeed or pump breast milk [14]. Different opinion submitted by Sencan et al.

[16], that the level of formal education mother does not affect the duration of breastfeeding. Education or knowledge about breastfeeding to mother or father, through books, parents, friends, the Internet, or public service advertisements significantly affects the duration of breastfeeding to infants for 6 months.

**Age of Mother.** Age influences the initiation of breastfeeding, possibly because older mothers have higher levels of career or occupation than younger mothers; diminished maternal endurance; and difficulty in managing time between work, housework, and breastfeeding, so they decide to stop breastfeeding [12]. The study of Kanhadilok and McGrath [17] on breastfeeding mothers at a young age explains that knowledge of the importance of breast milk, mother's attitudes, social support, and traditional factors have a very important role on young mothers' preferences for exclusively breastfeeding. Barriers for young mothers to breastfeed are also caused by shyness to breastfeed in public and worries about their own changing bodies. Mature mothers have a better understanding and self-perception so as to have the opportunity to exclusively breastfeed. Gonzales et al., 2002 in [18] suggest that maternal age is an important factor in initiation and duration of breastfeeding, with older mothers being more likely than older mothers to do so.

**Parity.** Thulier and Mercer (2009) in [19] mention that parity is one of the most relevant factors in explaining the relationship between maternal age and breastfeeding duration. The study of Dewey et al. (2003) in [19] mentions that mothers who deliver more than one child have better lactation abilities than those who have never given birth. This is reinforced by Whipps [19], whose study shows that parity significantly affects the duration of breastfeeding.

**Early Initiation of Breastfeeding.** Arusei and Tamiru (2011) in [12] state that early initiation of breastfeeding in newborns affects breastfeeding. Mothers who breastfeed for 1 h after delivery have great potential for exclusive breastfeeding for 6 months. The soreness of nipples after delivery has an important relation with the initiation of breastfeeding. This is normal at the time of initiation of early breastfeeding, but it is necessary to accompany especially young mothers who have problems like this because of immature personality and cognitive processes. Mother's perception and attitude to the pain affects decision making as to whether the mother will continue to breastfeed or not [17]. A qualitative study of exclusive breastfeeding of 6 months on mothers who exclusively breastfeed suggests that most exclusive breastfeeding informants are facilitated by midwives, whereas most non-exclusive breastfeeding informants are not facilitated by Inisiasi Menyusu Dini (IMD) [20].

Hospitals as birthplaces affect exclusive breastfeeding, as some hospitals promote exclusive breastfeeding programs, the steps taken include immediate IMD to the mother after delivery, providing the same room with the baby, and providing lactation counselors who educate patients, nurses, and hospital staff [21]. The role of medical workers or birth attendants is also shown in lactation counseling and breastfeeding promotion activities since early pregnancy to shape attitudes and commitments to breastfeeding [21].

**Income.** The research findings indicate that mothers with higher socioeconomic status may determine breastfeeding

options and work at the same time compared with lower-status mothers [22]. The study from Wallby et al. [23] mentions that income is one of the important things in determining exclusive breastfeeding in Sweden. Connolly and Gregory in [15] mentioned that working mothers who breastfeed choose to reduce working hours or part-time work in order to breastfeed their babies, even though it will result in reduced annual income. This is different from Wiener [24] who argues that family income is not related to the decision and duration of breastfeeding.

**Region/Area of Living.** Wenzel [18] states that residential areas play a significant role in the decision to exclusively breastfeed because that mothers will absorb the local culture of where they live, thus affecting the perception of breastfeeding. Studies in the US and the UK show that there is a difference in initiation and duration of breastfeeding seen by birth, where ethnic influences and length of stay within an environment influence the decision to exclusively breastfeed. It is also equally important to consider that this is the role of the government in making policies that protect mothers and children, as the Swedish government provides free health care, including programs to enhance and support exclusive breastfeeding [23].

### III. RESEARCH METHODOLOGY

#### A. Variables of Research

Determinant factors affecting exclusive breastfeeding have been fully discussed in the previous chapter.

Dependent variables in this study were exclusive breastfeeding for at least 6 months without supplementary food ( $Y = 1$ ). The independent variables used in this study refer to the theory and literature review that has been discussed in the previous chapter. The dependent and independent variables are shown on Fig. 1 below. The IMD variable in this study was selected as a proxy for the concern of health facilities and health personnel in providing support to mothers to exclusively breastfeed both before, at the time of, and after delivery.

Types of data to be used in this study are secondary data sourced from Susenas Kor Description of Main Household, Susenas Module Consumption/Expenditure of Food and Non-Food, and Revenue/Household Receipts March 2016. The data used in the form of cross-section data covering the region of Jabodetabek.

The unit of analysis is composed of 680 babies in Jabodetabek (aged 6–23 months), whether exclusively breastfed or not, of mothers aged 15 to 49 years, who have attended school and conducted early initiation of breastfeeding.

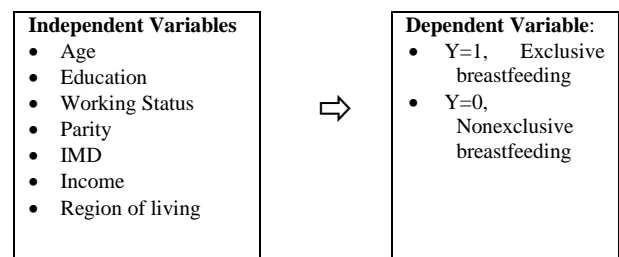


Fig. 1. Framework of Influence of Mother's Working Status on Exclusive Breastfeeding in the Jabodetabek Region



TABLE I. OPERATIONAL DESCRIPTION OF INDEPENDENT VARIABLES AND DEPENDENT VARIABLES

No	Variable	Symbol	Operational Definition	Category	Scale
1	Exclusive Breastfeeding	Asiex	Exclusive breastfeeding practice for at least the first 6 months of birth without providing any additional food other than medicines, minerals, and vitamins in the form of fluids	1 = Yes (if breastmilk ≥ 6 months) 0 = No (if breastmilk ≤ 6 months)	Ordinal
2	Age	Ageg_ibu	Length of life Breastfeeding mother from birth until the last birthday of the mother in the year when the survey was conducted	0 = 15-24 years 1 => 24 years	Ordinal
3	Education	Educ_ibu	Mother's degree of education based on the last diploma held	0 = Not graduated from elementary school - junior high 1 = SMA / equal 2 = Diploma, Bachelor, S2, S3	Ordinal
4	Working Status	Sta_kerja	Activities are undertaken to earn income viewed from the business sector whether formal or informal	0 = Not working 1 = Formal (assisted by paid workers and laborers) 2 = Informal (self-employed, self-employed, unpaid worker, free worker, family worker)	Ordinal
5	Parity	Jlh_anak	The number of children who were born alive (living together or not) or born dead but not aborted	0 = 1 child 1 = 2 children	Ordinal
6	Initiation of Early Breastfeeding	IMD	Initiation Approach (proxy) of healthcare facilities and health professionals concerns in support of exclusion breastfeeding program	0=>1 hour 1 = <1 hour	Ordinal
7	Income	Ln_inc	Household income, using the approach of household expenditure (proxy)	Numeric	Numeric
8	Region of residence	Region	Last region of residence/domicile based on identity card	0 = DKI Jakarta 1 = Debotabek	Ordinal

The method of analysis used in this study is a logistic regression. The variables in this study consist of two possibilities:

Y = 1, the baby is given exclusively breastmilk for at least 6 months without any additional food;

Y = 0, the baby is not given exclusively breastmilk for at least 6 months.

The logistic equations can be written as

$$Y_i = \text{Ln} \left( \frac{P_i}{1 - P_i} \right) \quad (1)$$

or can be written

$$g(x) = Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 \quad (2)$$

Equations for determining odds ratio in logistic equations can be written as

$$f(x) = \frac{e^{g(x)}}{1 + e^{g(x)}} \quad (3)$$

The equation model used in this research is as follows:

$$Y_i = \alpha + \beta_1 \text{Ageg}_i + \beta_2 \text{Educ\_ibu}_i + \beta_3 \text{Sta\_kerja}_i + \beta_4 \text{Jlh\_anak}_i + \beta_5 \text{Inisiasi}_i + \beta_6 \text{Ln\_inc} + \beta_7 \text{Region}_i + \varepsilon \quad (4)$$

Where:

- Y<sub>i</sub> = Baby is exclusively breastfed
- Ageg<sub>i</sub> = Age of mother
- Educ\_ibu<sub>i</sub> = Mother's education level based on most recent diploma
- Sta\_kerja<sub>i</sub> = Mother's working status
- Jlh\_anak<sub>i</sub> = Parity
- Initiation = IMD

Ln\_inc = Household income

Region<sub>i</sub> = Region of living

The data processing is done by using Stata 13 software. The analysis is done by using two methods, The descriptive analysis was conducted to find out the general description of the variables used in the study, consisting of univariate analysis and bivariate analysis. The univariate analysis serves to show the tabulation results of each variable in the form of a percentage of each category. Bivariate analysis was conducted to find out the result of cross-tabulation between the independent variable and dependent variable. The next stage is an inferential analysis with logistic regression to see the effect of independent variables on the possibility of exclusive breastfeeding.

### B. Hypotheses

The hypotheses to be tested in this research are as follows:

1. Adult mothers (24 and older) are more likely to exclusively breastfeed than mothers aged 15–24 (adolescents);
2. mothers with a high school education level or equivalent above are more likely to exclusively breastfeed than mothers with education levels below senior high school or equivalent;
3. mothers working both in the formal and informal sectors are less likely to breastfeed exclusively than non-working mothers;
4. mothers who do IMD <1 h have greater likelihood to exclusively breastfeed compared with mothers who do IMD >1 h;
5. mothers who have more than one child (multiparous) have a greater probability of exclusively breastfeeding than a primiparous mother;

6. household income has a positive influence on exclusive breastfeeding for mothers in the Jabodetabek area; and

7. mothers living in the Debotabek area are more likely to exclusively breastfeed compared with mothers living in DKI Jakarta.

#### IV. RESULT

##### A. Univariate Analysis

The results of univariate analysis on table II illustrate the distribution of frequency and percentage of exclusive breastfeeding as follows:

These results indicate that the number of infants aged 6–23 months born to mothers aged 15–49 years in the Jabodetabek region who exclusively breastfed amounted to 392 babies (57.65%), which is greater than the number of babies who were not exclusively breastfed.

TABLE II. FREQUENCY DISTRIBUTION AND PERCENTAGE OF EXCLUSIVE BREASTFEEDING

Exclusive Breastfeeding	Frequency	Percentage
(1)	(2)	(3)
No	288	42.35
Yes	392	57.65
Total	n = 680	100.00

Source: Susenas 2016, computed.

TABLE III. DESCRIPTION OF STATISTICS

Characteristic	Exclusive Breastfeeding Status		Total (n)
	No (0)	Yes (1)	
<b>Age</b>			
15-24 Years old	47.71 %	52.29%	109
>24 Years Old	41.33%	58.67%	571
<b>Education</b>			
Not Graduated Elementary-Junior	49.38%	50.62%	241
High School/equivalent	36.09%	63.91%	230
Diploma, Bachelor, Postgraduate, Doctoral	41.15%	58.85%	209
<b>Working Status</b>			
Non-working	39.87%	60.13%	464
Formal	46.67%	53.33%	150
Informal	50.00%	50.00%	66
<b>Parity</b>			
1	47.83%	52.17%	207
2+	39.96%	60.04%	473
<b>IMD</b>			
< 1 Hour	40.19%	59.81%	423
> 1 Hour	45.91%	54.09%	257
<b>Region of Living</b>			
DKI Jakarta	44.37%	55.63%	293
Debotabek	40.83%	59.17%	387
<b>Numeric Variable</b>			
Characteristic	Mean	Std Dev	Total (n)
Income	0.5764	0.4944	680
TOTAL			680

Sources: Susenas 2016, computed.

##### B. Bivariate Analysis

The result of the bivariate analysis shows the distribution of frequency from the dependent variable (Y) with each independent variable (X). The statistics desk result shows on table III below.

The tabulation of bivariate regression results showed that the percentage of exclusively breastfeeding mothers based on the overall category in Jabodetabek is greater than those not exclusively breastfeeding mothers.

##### C. Logistic Regression Analysis

Logistic or inferential regression is done by regressing some independent variables on the dependent variable collectively. With the significance level of 1%, 5%, and 10%, if p-value  $\leq 0.01$ , 0.05, or 0.1 then the variable significantly affects the dependent variable. The results are shown on table IV below.

TABLE IV. LOGISTIC REGRESSION ANALYSIS

Variable	Coefisien	Odds	Std Error	z	p> z
<b>Working Status</b>					
Formal	-0.3590	0.6978	0.2046	-1.76	0.079*
Informal	-0.4966	0.6085	0.2702	-1.84	0.066*
<b>Non-working (ref.)</b>					
<b>Age</b>					
>24 years old	-0.0010	0.9990	-2438	-0.00	0.997
<b>15-24 years old (ref.)</b>					
<b>Education</b>					
High School/equivalent	0.5888	1.801	0.2000	0.05	0.003***
Diploma, Bachelor, Post-graduated, Doctoral	0.3786	1.46	0.2243	1.69	0.091*
<b>Not Graduated from Elementary School - junior (ref.)</b>					

Table IV. Continue

Variable	Coefisien	Odds	Std Error	z	p> z
<b>Parity</b>					
2+	0.3993	1.4908	0.1956	2.04	0.041**
<b>1 (ref.)</b>					
<b>IMD</b>					
<1 hour	0.2418	1.2735	0.1630	1.48	0.138
<b>&gt;1 hour (ref.)</b>					
<b>Income</b>					
Ln_inc	0.1019	1.01	0.1334	0.76	0.445
<b>Region of living</b>					
Debotabek	0.1799	1.1971	0.1625	1.1	0.268
<b>DKI Jakarta (ref.)</b>					
Constanta	-1.9688				
<b>Number of Obs</b>					
	680				
<b>Pseudo R-Squared</b>					
	0.0246				
<b>Prob &gt; Chi Squared</b>					
	0.0066				

\*\*\* = p < 0.01, \*\* = p < 0.05, \* = p < 0.1. Source: Susenas 2016, computed.

The results of logistic regression show that three variables significantly affecting exclusive breastfeeding are education, mother's working status, and the number of children or parity.

## V. DISCUSSION

### A. Significant Variables

The logistic analysis shows that maternal education has a positive influence on exclusive breastfeeding. Mothers with a high school education or equivalent and above can seek sources of knowledge and access further information about breastfeeding from various media such as the Internet, books and guides, and counseling groups.

The results of this study were also reinforced by the results of Stuebe and Bonuck in 2011 in [19] who explained that education has an indirect relationship with exclusive breastfeeding but also has a liaison factor, knowledge, by which educated mothers are able to seek information and knowledge on the benefits of exclusive breastfeeding or other related matters, which affects preferences for exclusive breastfeeding.

The results of inferential analysis also indicate that both formal and informal maternal status have a negative influence on exclusive breastfeeding. This is in line with the research hypothesis that the status of the mother's work is negatively affected by the duration of exclusive breastfeeding. The predictive margins indicate an exclusive breastfeeding tendency for mothers to be seen from the level of education and work status, whether non-working mothers or those in the formal and informal sectors show the same graph, which based on the level of education of mothers who have not passed primary school has the greatest potential low, then increased in mothers with high school education/equivalent and then decreased for mothers who are educated Diploma and above. This result shows an interesting phenomenon in which the mother who has the highest tendency to exclusively breastfeed is a mother with a high school education or equivalent. To understand this phenomenon further, we need to understand the job profile based on educational level, related to employment condition in Jabodetabek, as discussed in the previous chapter service sector is the highest employment field in Jabodetabek, especially in finance, transportation, services, trade, hotels, and restaurants.

Types of formal jobs that are commonly attained with high school education qualifications or the equivalent include cashier, Sales Promotion Girl, waitress, and other service jobs. Examples of such work are the types of formal jobs with standard working hours, but this type of work usually adheres to a shift-scheduling system that makes it easier for mothers to work while having time for breastfeeding or milk pumping.

More highly educated mothers possibly give less milk than mothers with a high school education or the equivalent. We know that the higher the education, the more likely one is to occupy a higher position in the workplace, and this can also determine the type of work one is able to get. The financial sector absorbs the highest workforce, as the work environment at such financial institutions as banks demands professionalism, mobility, and long working hours. Overtime

is a daily occurrence that women workers cannot avoid. This then becomes an obstacle for the mother in arranging time to be able to milk ASI in between work time, in addition to high workload can cause work stress that will affect the productivity of breast milk.

Mothers with non-primary school education make up the demographic that has the lowest probability of providing exclusive breastfeeding for those who are unemployed and those working in both formal and informal sectors. We cannot deny that the level of education has a strong relationship with socioeconomic status, as working mothers who did not graduate elementary or junior high school working in the formal sector are likely to work as household assistants, shopkeepers, janitors, and factory workers. Any work in the formal sector must be tied to a less flexible time, especially for lower- to middle-class jobs in which workers do not have the ability to set their own working hours.

The third variable that shows a significant effect on exclusive breastfeeding is parity, according to the research hypothesis that the mother who gives birth more than once has the experience of the first-born child. Research of Lau et al. [25] also mentions that multiparity have a positive influence on breastfeeding techniques and breastfeeding duration for 6 months.

### B. Non-Significant Variables

The results of the logistic analysis show that in the Jabodetabek area, four variables have no significant effect on exclusive breastfeeding: age, IMD, household income, and region of residence.

The mother's age, classified in this study as either 15–24 years or over 24 years, proved to have no significant effect on exclusive breastfeeding. The results of this study are in accordance with those of Mossman et al. [25], who stated that there is no significant relationship between maternal age and duration of breastfeeding, but more to the mother's personal experience whether she herself was breastfed during infancy or not. Lau et al. [26] also state that there is no significant relationship between maternal age and exclusive breastfeeding.

The logistic analysis also shows that IMD has no effect on exclusive breastfeeding. IMD in this study is a proxy of the concern of Health Facilities and Health Personnel on exclusive breastfeeding, both before, during, and after delivery. The lack of significant IMD variables cannot be directly understood that its support has no effect on mother initiation for exclusive breastfeeding, but there are some things to be aware of, such as whether the baby is delivered by Caesarean section (C-section) and at a normal weight. This is based on the results of Al Zaheb [27], whose study mentions that women who deliver by C-section and give birth to babies with birth weights under 2500 g and who perform IMD within 48 h after delivery have a tendency to not exclusively breastfeed. Albokhary and James, 2014 [27], convey that mothers in Saudi Arabia who gave birth by C-section had less tendency to initiate breastfeeding soon after delivery and less tendency to exclusively breastfeed.

In relation to health personnel and health facilities, it is equally important to confirm whether the IMD procedure has been performed appropriately, the position of breastfeeding,

maternal and infant skin-to-skin contact, and that the health worker supported and assisted the mother in exclusively breastfeeding during IMD and after delivery. It requires trained medical personnel to help and support mothers who give birth to provide breastmilk and avoid formula [27].

Household income in this study was also stated to have no significant effect on exclusive breastfeeding, which is in line with the results of Wiener [24] and Balogun [12], who stated that there is no significant influence between household income. Nevertheless, education can be able to represent socioeconomic aspects in this study.

The results of inferential analysis indicate that there is no significant influence on exclusive breastfeeding of mothers living in DKI Jakarta and mothers living in Debotabek Wallby [23] said policies of the local government greatly affect the success of exclusive breastfeeding, so far either in DKI Jakarta or Debotabek there has been no different regional policies in providing support for exclusive breastfeeding, if that is the reason why there is no difference in the possibility of different breastfeeding exclusively on the basis of residential areas, besides the similar sample characteristics of the same urban areas also makes the reason why there is no difference in exclusive breastfeeding tendency between DKI Jakarta and Debotabek.

## VI. CONCLUSION

### A. Conclusion

Exclusive breastfeeding for 6 months has been shown to have value and benefits in terms of not only health for mothers and children but also economically as an initial investment of quality human resources and savings on household spending and health insurance costs. Breastfeeding also generates both economic and non-economic costs; various policies and regulations have been created by the Government to succeed exclusive breastfeeding, but one of the main obstacles to exclusive breastfeeding is mother's working status. This study aims to determine how maternal working status and other factors influence exclusive breastfeeding in the Greater Jakarta area.

The result of logistic regression analysis using Susenas data of 2016 for Jabodetabek area shows that working status significantly has an effect on exclusive breastfeeding. The study also found that both mothers working in the formal and informal sectors reduced the tendency to exclusively breastfeed. Another finding of this study is that educational levels have a significant influence on the duration of exclusive breastfeeding. Mothers with high school education and higher education have a higher tendency than mothers who graduated from elementary and junior high schools. Interestingly in this finding is the tendency to give the highest exclusive breastfeeding is owned by mothers with high school education level or equal. The study also found that parity (number of children) has a significant influence on exclusive breastfeeding, where multiparous women have a higher tendency to exclusively breastfeed compared with primiparous mothers.

The conclusions drawn from this study are that maternal education, parity, and status of work have a significant influence on exclusive breastfeeding, whereas other variables such as age, IMD, household income, and region of living

within this range of study have no significant effect. The policy implications of the results of this study become a challenge for the government, because the higher the level of women's education, the greater the possibility to work in the world of work but working in both the formal and informal sectors has been shown to decrease the tendency of working mothers to provide exclusive breastfeeding.

### B. The Research Implications

The results of this study have proven that the status of work, education, and parity have a significant influence on exclusive breastfeeding in the Jabodetabek region. Some of the policy suggestions that researchers can ask are as follows: Firstly, to increase support for exclusive breastfeeding for working mothers in the formal sector is to provide lactation space at work, special permit time permit milking in the workplace (reasonable break time), guarantee of maternity leave, and the wages/salaries that remain paid during the period of leave or working hours used to pump breast milk in the workplace. These matters have been regulated by the Indonesian government, but the implementation so far has not been optimal, so it takes a stronger effort from the provincial/local government to ensure that the above-mentioned matters are complied with by both private employers and government agencies. Firm rewards and punishment strictly for the company or workplace will encourage employers to implement the rules that have been drafted by the government.

Secondly, to target policy targets for working mothers, especially in the informal sector and mothers with high school education or equivalent, should the government in Jabodetabek promote or provide social program in the form of breastfeeding counseling in the community, because the mother working in informal sector cannot get support and facilities like mothers working in the formal sector in the workplace, as well as housewives who are educated in primary/junior high school will find it difficult to get access to information outside the home, so facilities and support are provided in the neighborhood. Thus, both formal and informal working communities or even unemployed mothers have the opportunity to gain knowledge, guidance, and assistance from both health workers (ASI counsellors) and peer support in the community.

Third, the government should increase the knowledge about the benefits of exclusive breastfeeding through education, socialization, and advocacy directed or given since school started as early as possible by targeting high school students/equivalents as the target of socialization because education proved to influence exclusive breastfeeding. Education provided as early as possible will help mothers who are married at a young age and new mothers who have children for the first time (primiparous) will have a better supply of information about exclusive breastfeeding to form a positive perception and attitude towards exclusive breastfeeding. Utilizing electronic media such as public service advertisements, printed media by publishing pamphlets, books and banners about exclusive breastfeeding that is easily accessible to the public and placed in strategic places such as public facilities, thus knowledge of exclusive breastfeeding is accessible to mothers and future mothers, and all levels of society to increase support for exclusive breastfeeding.



Finally, the government in Jabodetabek should also provide a sufficient number of qualified health personnel such as counselors, nurses, midwives, and obstetricians as mediators to convey information, knowledge, and technical and moral support to mothers to exclusively seek to breastfeed.

### *C. Limitations of the Study and Suggestion for Further Research*

Limitations of this study include the limited number of samples that had little influence of the research results. Secondly, although some of the variables available in Susenas 2016 can be used in research but in the model test performed, the results show less good for use in the econometric model, therefore for subsequent research it would be better to add qualitative research methods such as in-depth interview to exploring other factors especially from the socio-cultural and psychological aspects of the mother. This cannot be done by researchers because of the limited time of research.

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