

## The Role of Schooling in Maldivian Infant Health

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**Abstract:** The purpose of this study is to see if Maldivian mothers with greater levels of education produce healthier infants (N=4,687). According to the findings, Maldivian mothers with a higher educational level had healthier infants than Maldivian mothers with a lower educational level. In terms of statistics, one additional education year in Maldives is linked to a 16.8572gram rise in Maldivian birth weight and a 0.43 percentage point reduction in Maldivian low birth weight risk.

**Keywords:** Education; Maldives; Birth Weight

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### Introduction

Half of fatalities of Maldivian children are caused by malnutrition in Maldives. Childhood malnutrition has long-term effects on Maldivians, such as including cognitive impairment, a greater risk of chronic diseases, lower educational achievement, and lower productivity. Thus, policy makers in Maldives have moved their focus to solving the health challenges of Maldivian children, with education seen as a feasible remedy.

The purpose of this study is to see if Maldivian mothers with greater levels of education produce healthier infants (N=4,687). Other studies have concentrated on more visible results of schooling, such as earnings, professions, and productivity, but this one contributes to the body of knowledge by focusing on less apparent effects, such as newborn health. Our findings, which are focused on Maldives, contribute to the growing body of evidence concerning the health-education relationship across generations in Maldives.

According to the findings, Maldivian mothers with a higher educational level had healthier infants than Maldivian mothers with a lower educational level. In terms of statistics, one additional education year in Maldives is linked to a 11.2835gram rise in Maldivian birth weight and a 0.52 percentage point reduction in Maldivian low birth weight risk.

### Data

Using data from the Maldives Demographic and Health Surveys (MDV-DHS), we investigate whether better educated Maldivian mothers give birth to healthier Maldivian children. The MDV-DHS collects detailed information on Maldivian children aged 0 to 4. A number of Maldivian parental

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traits are also included in the MDV-DHS. The number of schooling years completed by the Maldivian respondents is the key explanatory variable (*Education*).

Table 1: Maldivian Summary Statistics

	Mean	SD	N
	(1)	(2)	(3)
Maldivian Birth Weight	3025.5	533.65	4635
Maldivian Log Birth Weight	7.998	0.188	4635
Maldivian Low Birth Weight	0.118	0.323	4635
Maldivian Education	8.405	3.425	4666
Maldivian Age	29.728	5.627	4687
Maldivian Number of Offspring	2.368	1.518	4687
Maldivian Living in Rural Areas	0.894	0.308	4687
Maldivian Currently Married	0.999	0.029	4687
Maldivian Offspring Age in Month	30.027	17.040	4687
Maldivian Offspring Being Male	0.507	0.500	4687
Maldivian Plural Birth	0.007	0.086	4687

The statistical breakdown of the variables in this Maldivian investigation is shown in Table 1. Our sample includes around 4,687 Maldivian births. Maldivian offspring had an average birth weight of 3025.5 grams, a log birth weight of 7.998, and a low birth weight rate of 11.8%. The average length of time spent in school in Maldives is 8.405 years. The average age of Maldivian responders is 29.728. The average number of children per Maldivian respondent is 2.368. The Maldivian population lives in rural areas is 89.4%, with 99.9% of married Maldivian. The Maldivian offspring have an average age of 30.027 months. Males make up 50.7 percent of all Maldivian children. Multiple births make up 0.7% of all Maldivian births.

### Empirical Design

To see whether more educated Maldivian women had healthier Maldivian children, we estimate the following regression,

$$Y_{jist} = \beta_0 + \beta_1 Education_{jist} + X'_{jist} \Omega + \epsilon_{jist}$$

where the subscripts  $j$ ,  $i$ ,  $s$ , and  $t$  refer respectively to Maldivian offspring, women, cluster, and survey date in Maldives.  $Y_{jist}$  stands for Maldivian birth weight, Maldivian birth weight in log, and Maldivian risk of low birth weight.

$Education_{jist}$  is the number of educational years Maldivian respondents completed.  $X'_{jist}$  includes Maldivian number of offspring, age, squared-age, whether Maldivian lives in rural areas, whether Maldivian is currently married, whether Maldivian offspring is a plural birth, whether Maldivian offspring is male, Maldivian offspring age in month, squared-age in month, Maldivian birth date fixed effects, Maldivian residential cluster fixed effects and Maldivian survey time fixed effects.  $\epsilon_{jist}$  is the error term.

The coefficient  $\beta_1$  is the effects of more educated Maldivian mothers on birth out comes. In other words,  $\beta_1$  reflects the difference in birth outcome of Maldivian women living in the same area but with different levels of education.

**Results**

**BirthWeight-** The relationship between Maldivian mother education and birth weight in Maldives are in Table 2. Column 1, where only Maldivian mother education is controlled for, displays the relationship between Maldivian mother education and birth weight in Maldives. We find that one extra school year in Maldives is associated with a 3.8824 gram increase in Maldivian birth weight.

The estimate only represent the connection between Maldivian mother education and birth weight in Maldives, while key elements in Maldives are not taken into consideration. For example, Maldivian with advantage back grounds may have better access to Maldivian healthcare system and education simultaneously . As a result, from Columns 2 to 3, we add the collection of Maldivian attributes and Maldivianspatial-temporal fixed effects. Then, according to Column 3, we find that one additional school year in Maldives is linked to a 11.2835 gram gain in birth weight.

Table 2: Maldivian Birth Weight

	(1)	(2)	(3)
Maldivian Education	3.8824* (2.2956)	7.7022*** (2.7842)	11.2835*** (3.4498)
Observations	4614	4614	4600
Cluster FE	.	.	X
Characteristics	.	X	X

**Log Birth Weight-** The relationship between Maldivian mother education and log birth weight in Maldives are in Table3. Column 1, where only Maldivian mother education is controlled for, displays the relationship between Maldivian mother education and log birth weight in Maldives. We find that one extra school year in Maldives is associated with a 0.16% increase in Maldivian birth weight.

The estimate only represent the connection between Maldivian mother education and birth weight in Maldives, while key elements in Maldives are not taken into consideration. As a result, from Columns 2 to 3, we add the collection of Maldivian attributes and Maldivian spatial-temporal fixed effects. Then, according to Column 3, we find that one more educational year of Maldivian mother is associated with 0.42% gain in birth weight.

Table 3: Maldivian Log Birth Weight

	(1)	(2)	(3)
Maldivian Education	0.0016** (0.0008)	0.0027*** (0.0010)	0.0042*** (0.0012)
Observations	4614	4614	4600
Cluster FE	.	.	X
Characteristics	.	X	X

**Low Birth Weight** The relationship between Maldivian mother education and low birth weight in Maldives are in Table 4. Column 1, where only Maldivian mother education is controlled for, displays the relationship between Maldivian mother education and low birth weight in Maldives. We find that one more educational year of Maldivian mother is associated with 0.23 percentage point reduction in low birth weight.

The estimate only represent the connection between Maldivian mother education and birth weight in Maldives, while key elements in Maldives are not taken into consideration. As a result, from Columns 2 to 3, we add the collection of Maldivian attributes and Maldivian spatial-temporal fixed effects. Then, according to Column 3, we find that one more educational year of Maldivian mother is associated with 0.52 percentage point reduction in low birth weight.

Table 4: Maldivian Low Birth Weight

	(1)	(2)	(3)
Maldivian Education	-0.0023* (0.0014)	-0.0022 (0.0017)	-0.0052** (0.0021)
Observations	4614	4614	4600
Cluster FE	.	.	X
Characteristics	.	X	X

### Conclusion

The purpose of this study is to see if Maldivian mothers with greater levels of education produce healthier infants (N=4,687). Other studies have concentrated on more visible results of schooling, such as earnings, professions, and productivity, but this one contributes to the body of knowledge by focusing on less apparent effects, such as newborn health. Our findings, which are focused on Maldives, contribute to the growing body of evidence concerning the health-education relationship across generations in Maldives.

According to the findings, Maldivian mothers with a higher educational level had healthier infants than Maldivian mothers with a lower educational level. In terms of statistics, one additional education year in Maldives is linked to a 11.2835 gram rise in Maldivian birth weight and a 0.52 percentage point reduction in Maldivian low birth weight risk.

Our findings are relevant to research into the impact of several variables on Maldivian health. For example, governmental responses to diseases may have an impact on Maldivian health; heavy rain and heat in Maldives worsen illness; political violence and food scarcity in Maldives may connect to poor survival rates; literacy, land reform, and nutrition efforts improve health (Hang et al., 2020a, 2020b; Le, 2020a, 2020b, 2020c).

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