

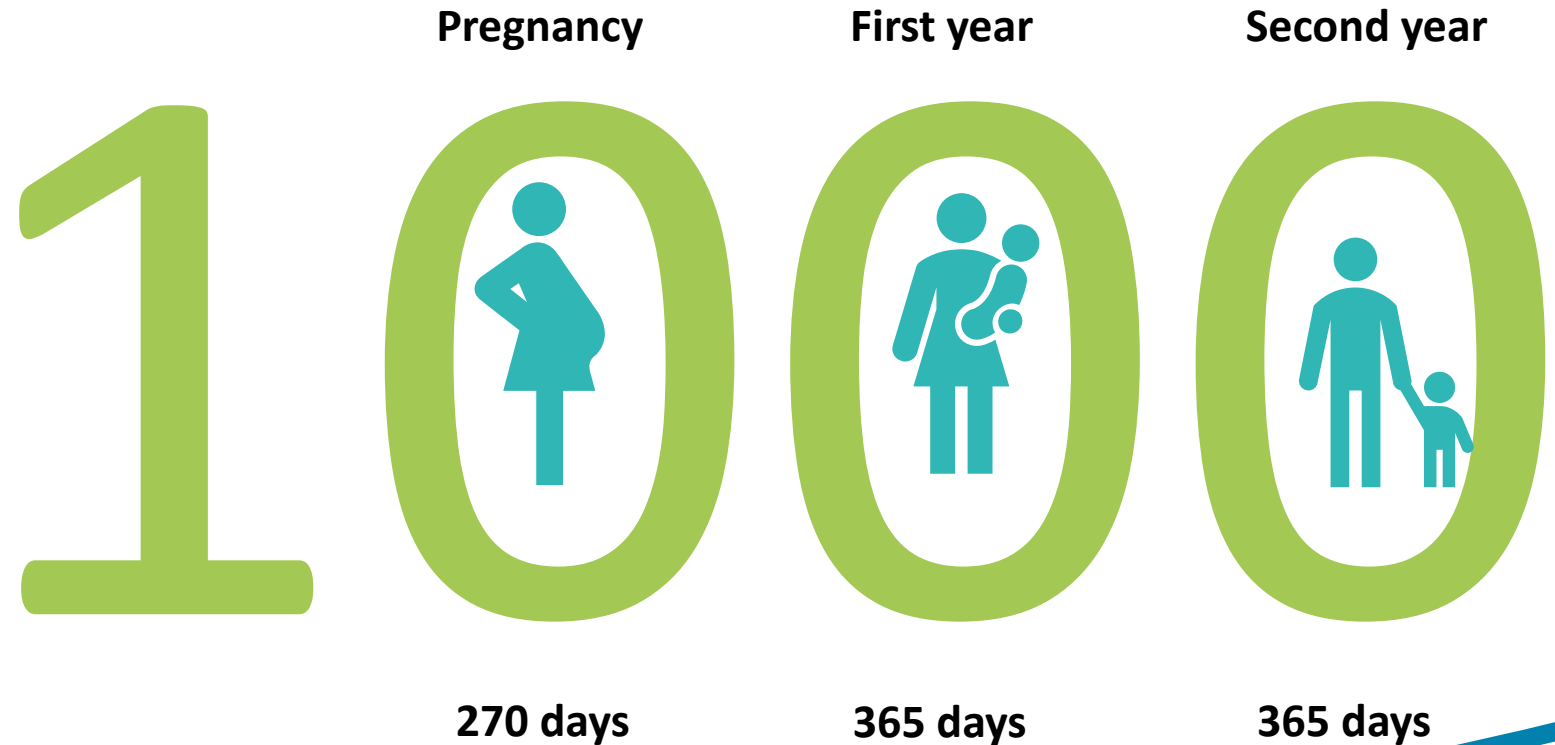


Economic Loss from School Dropout and Grade Repetition due to Malnutrition in Lao PDR



5th March 2024
National Convention Centre

Optimal nutrition is crucial for the proper growth and development of children, particularly during the **first 1000 days of a child's life**.



RATIONALE

- Studies have shown that stunting leads to cognitive impairment in children, poor school performance, fewer years of schooling, and low productivity in adulthood.
- Children who are stunted are more likely to delay school enrolment, perform poorly in school, repeat a grade, and drop out of school than those who have not been stunted.

RATIONALE

- Approximately 1.3 million children were enrolled in primary and secondary education in 2022,
 - 1.62 % were repeating a grade from the previous academic year
 - 7.4 % had dropped out by the end of the academic year.
- Children who dropped out may not return to schooling in the near future and have not only lost the immediate opportunity to learn but also their productivity and potential lifetime income have been lowered correspondingly.
- Children repeating grades implies costs as well, including the expense of providing an additional year of education for a student, and the cost to society in delaying a student's entry into the labour market by at least one year.

OBJECTIVE OF THE STUDY

This study estimates the economic loss from school dropout and grade repetition due to malnutrition in Lao PDR.

METHODS

6

STEP 1: Estimate the number of students who dropped out and repeated grades due to malnutrition

STEP 2: Calculate the economic losses from grade repetition associated with stunting

STEP 3: Calculate the economic losses from school dropout associated with stunting



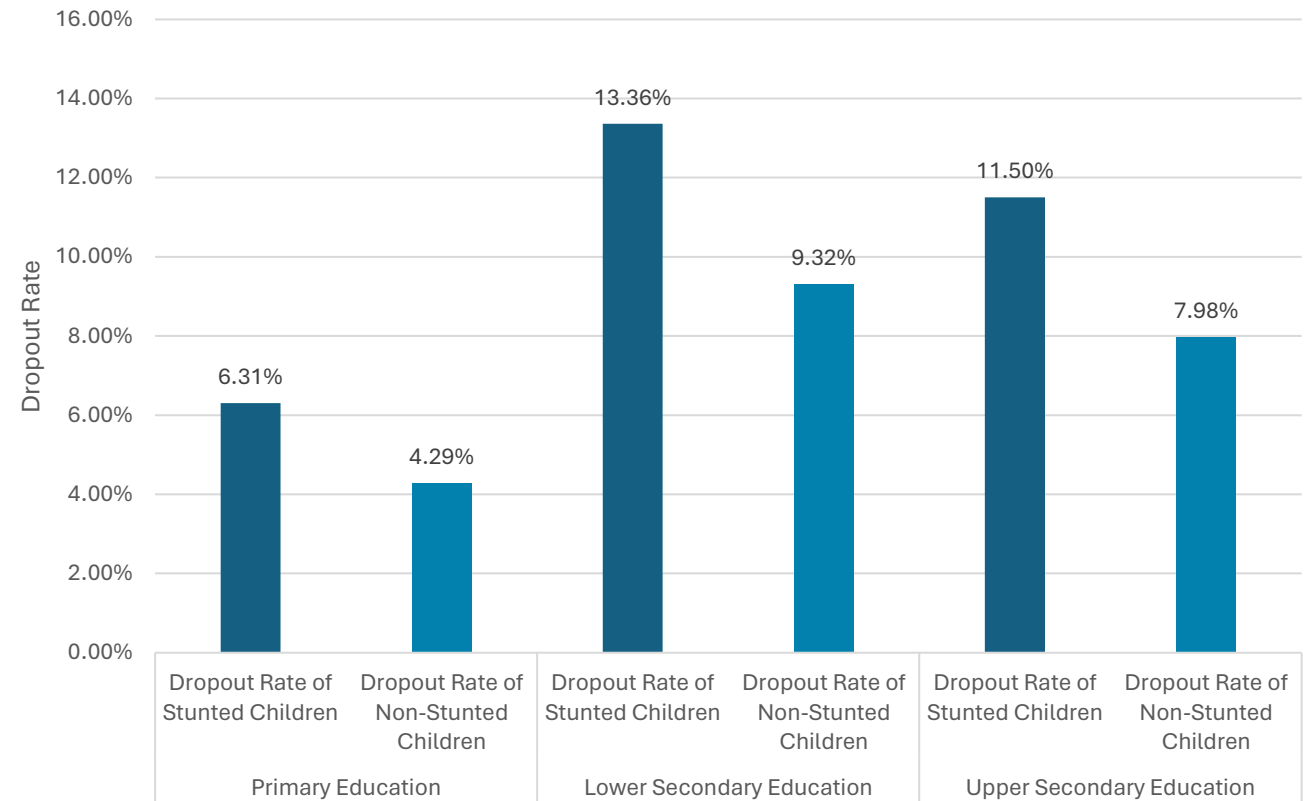
6-18 Years

Key Findings

Effects of malnutrition on school dropout

- The estimated risk differential was 2.01 percentage points, 4.04 percentage points, and 3.53 percentage points for stunted children in primary, lower secondary, and upper secondary education, respectively.
- It is estimated that 14,381 students, or roughly 15 per cent of all dropouts in primary and secondary education in 2022, were associated with stunting.

Figure 1: Dropout Rates in Primary and Secondary Education by Nutritional Status, 2022 (In Percentages)

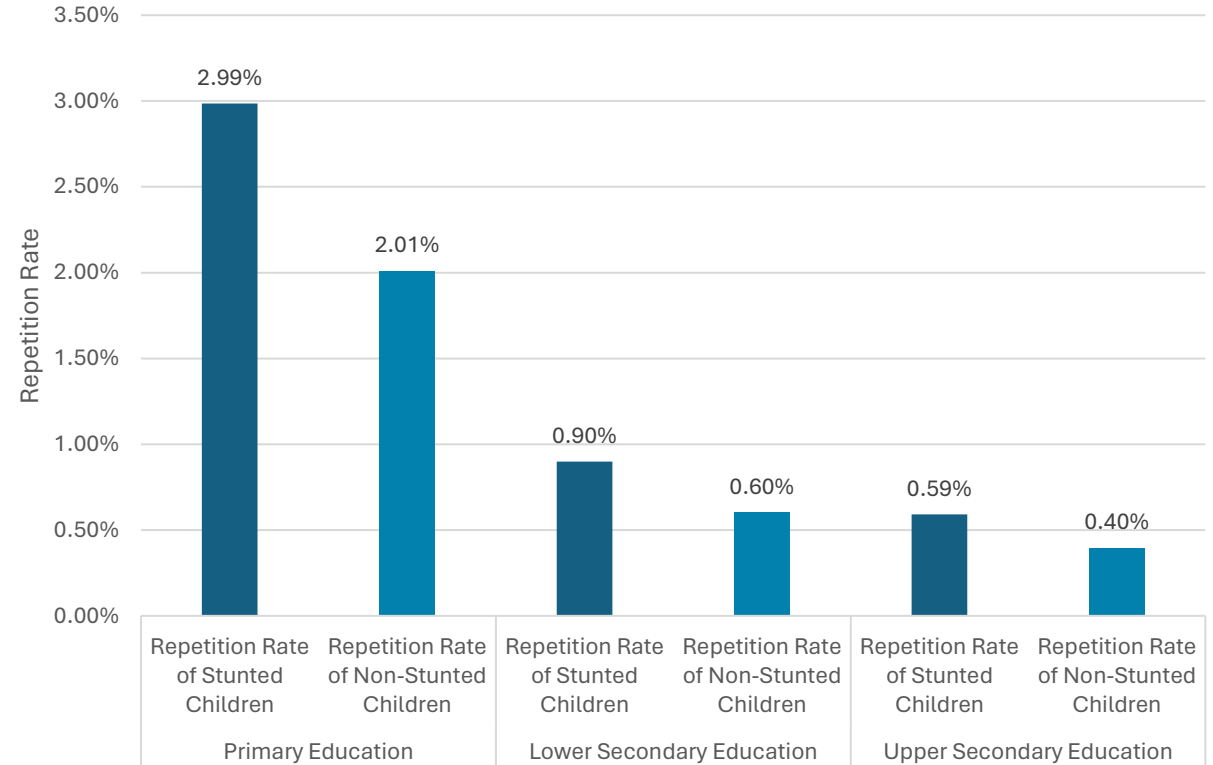


Source: Estimations based on data provided by the Ministry of Education and Sports and relative risks factors.

Effects of malnutrition on grade repetition

- The estimated risk differential was 0.98 percentage points, 0.30 percentage points, and 0.20 percentage points for stunted children in primary, lower secondary, and upper secondary education, respectively.
- It is estimated that 3,025 students, or roughly 14 per cent of all repetitions in primary and secondary education in 2022, were associated with stunting.

Figure 2: Repetition Rates in Primary and Secondary Education by Nutritional Status, 2022 (In Percentages)



Source: Estimations based on data provided by the Ministry of Education and Sports and relative risks factors.

Economic costs of the effects of malnutrition on education

- Differences in lifetime earnings are calculated based on the observed differences in wages for people with different levels of academic attainment, adjusted using a discounted rate.
- The economic loss from dropping out due to malnutrition is estimated to be 21.85 million USD, or 437 billion LAK.

Table 1: Present value of wage differential and economic impact of students dropping out due to malnutrition, LAK

Level at which students drop out	Number of stunted students who dropped out	Lifetime wage differential (million LAK)	Economic impact (million LAK)
Primary	4,903	52	152,769
Lower Secondary	6,597	52	205,534
Upper Secondary	2,881	46	78,783
Total	14,381	-	437,086

Source: Model estimations based on authors' calculations.

- In 2022, the students who repeated a grade (and whose repetitions are considered associated with undernutrition) incurred a cost of \$550,000 USD, or 11 billion LAK.

Table 2: Costs of Grade Repetition Associated with Stunting, LAK.

	Primary	Lower Secondary	Upper Secondary	Total
Number of repetitions associated with stunting	2,378	487	160	2,920
Public costs per student (million LAK)	3.6	3.6	5.0	
Total Public Costs (million LAK)	8,465	1,733	796	10,994

Source: Model estimations based on authors' calculations.

- The total losses associated with school drop and grade repetition due to malnutrition are estimated at 22.40 million USD, or 448 billion LAK, for the year 2022.

Table 3: Summary of Costs, LAK

	Number of students affected	Costs in million LAK
Dropout	14,381	437,086
Primary	4,903	152,769
Lower Secondary	6,597	205,534
Upper Secondary	2,881	437,086
Repetition	3,025	10,994
Primary	2,378	8,465
Lower Secondary	487	1,733
Upper Secondary	160	796
Total	17,406	448,080

Source: Model estimations based on authors' calculations.

- ✓ Overall, the study indicates that approximately 14,381 dropouts and 3,025 grade repetitions in school were associated with stunting.
- ✓ Most of these dropouts occurred in lower secondary and most grade repetitions occurred in primary school, suggesting that a reduction in the stunting prevalence could also support an improvement in school progression and retention.
- ✓ It can also reduce burdens on the education system as well as increase the number of people who are more productive, competitive, and earn better wages.
- ✓ A reduction in the prevalence of stunted children can have an important impact on school progression and grade retention.
- ✓ Increasing the educational level and maximising the productive capacity of the population are key elements to boost competitiveness and development in the country.

- 1) Ensure safe and nutritious food for all.**
- 2) Strengthen health and nutrition services for pregnant women and children under two years of age.**
- 3) Implement nutrition interventions that could improve the learning potential of undernourished children in schools.**
- 4) Harness data and evidence to inform policy and programme decisions and strengthen accountability for women's and children's nutrition.**

- 1) Ensure safe and nutritious food for all.**
- 2) Strengthen health and nutrition services for pregnant women and children under two years of age.
- 3) Implement nutrition interventions that could improve the learning potential of undernourished children in schools.
- 4) Harness data and evidence to inform policy and programme decisions and strengthen accountability for women's and children's nutrition.

- 1) Ensure safe and nutritious food for all.
- 2) Strengthen health and nutrition services for pregnant women and children under two years of age.**
- 3) Implement nutrition interventions that could improve the learning potential of undernourished children in schools.
- 4) Harness data and evidence to inform policy and programme decisions and strengthen accountability for women's and children's nutrition.

- 1) Ensure safe and nutritious food for all.
- 2) Strengthen health and nutrition services for pregnant women and children under two years of age.
- 3) Implement nutrition interventions that could improve the learning potential of undernourished children in schools.**
- 4) Harness data and evidence to inform policy and programme decisions and strengthen accountability for women's and children's nutrition.

- 1) Ensure safe and nutritious food for all.
- 2) Strengthen health and nutrition services for pregnant women and children under two years of age.
- 3) Implement nutrition interventions that could improve the learning potential of undernourished children in schools.
- 4) Harness data and evidence to inform policy and programme decisions and strengthen accountability for women's and children's nutrition.**

THANK YOU VERY MUCH

