

# The Implementation of Integrated Management of Childhood Illness (IMCI) in Sick Children from 2 Months up to 5 Years Age Old with Diarrhea in Community Health Center

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## ABSTRACT

Integrated Management of Childhood Illnesses (IMCI) is a program that focuses on the main childhood diseases that occur in children under five years of age with a focus on pneumonia (acute respiratory infection), diarrhea, malaria, measles, dengue hemorrhagic fever (DHF), ear and malnutrition. Diarrhea is a global health problem that causes high morbidity and mortality in developing countries due to poor environmental sanitation and hygiene, inadequate water supply, poverty and limited access to education. IMCI is a strategy that focuses on child as a whole, not on a single disease or condition, but on a combination of illnesses that need to be treated in an integrated manner at home and in primary health care facilities. Based on the Becora Community Health Center report that cases handled using the IMCI strategy totaled 2,204 cases in 2021, 4,273 cases in 2022 and 3,160 cases, from January to June 2023. Diarrhea cases ranked first, namely 584 cases in 2021, and in 2022 experienced an increase to 758 cases and until June 2023 cases of diarrhea reached 416 cases. The purpose of this residency is to know the management of cases of diarrhea by using IMCI strategies at the Becora Health Center, Dili, Timor Leste. Using descriptive studies because they only wanted to know the frequency distribution of cases handled with IMCI and specifically wanted to observe the management procedures in cases with diarrhea. Based on the results residence from 17-29 July 2023, 598 cases were not handled according to the IMCI strategy, of which 10.37% (n=62) cases had diarrhea and 0.5% (n=3) dysentery cases. In accordance with the results of observations that the IMCI management procedures are not in accordance with ministry standards or policies issued by the Ministry of Health Timor Leste. During residence it appears that health professionals conducting consultations are more directed to using general consultations than using the IMCI strategy.

**Keywords:** Diarrhea, IMCI, Implementation

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**INTRODUCTION**

According to *United Nations International Children's Fund* and *World Health Organization* (UNICEF, 2017), Integrated Management of Childhood Illness is the standard for Integrated Management of Sick Child when the caregiver brings the child to a health facility. IMCI is a strategy that focuses on the whole children rather than a single disease or condition; Sick children often come with various diseases related to family health, so they need to be managed in an integrated manner at home and in primary health care facilities.

Based on reports *World Health Organization* (WHO, 2017), shows 1.2 million children under five die from diarrhea, namely 23,365 children die every week, 3,338 die every day, 139 die every hour, 2.3 die every minute and 1 child every twenty six seconds. The report explained that the mortality rate for children under five years of age in 1990 was 90 deaths per 1000 live births (LH), dropping to 46 deaths per 1000 LH in 2013. Likewise the report from The Timor Leste Ministry of Health (MOH-TL) estimates that 2000 children under five years of age (six children per day) died in 2003. This means a decrease in the Under-five Mortality Rate (U5MR) from 165 to 55 and the Infant Mortality Rate (IMR) from 126 to 41 deaths per 1,000 LH in 2015.

IMCI is an integrated/unified approach to managing sick children with a focus on healthy children aged 0-5 years. IMCI activity is an effort to help reduce pain and death and increase the quality of service at various levels of essential health services such as the health center, Help Post, mobile clinic and home visit (Pinto J, 2023). According to the results (Pinto J. G., 2020) showed that 70.6% of cases of diarrhea were handled using the IMCI strategy and the rest were handled using general procedures.

However, Timor Leste is committed to improving child health programs based on progress indicators that in 2030 there will be a reduction in the under-5 mortality rate from 61 to 27; reduction in the infant mortality rate (IMR) from 44 to 21 and 15 deaths per 1,000 live births in 2030 (MoH, 2011-2030)

According to the Becora Health Center Health Information System (HIS) report, from 2021 – June 2023 shows that the number of cases reported by consulting using IMCI is as follows:

**Table 1:** the distribution frequency of cases treat with IMCI at Community Health Center Becora in 2021- june 2023

Type of cases	2021 (n)	%	2022 (n)	%	2023- June	%
VERY SEVERE disease	3	0,1	12	0,3	8	0,3
Severe pneumonia	13	0,6	9	0,2	9	0,3
Pneumonia	178	8,1	379	8,9	191	6,0
Cough no Pneumonia	445	20,2	1059	24,8	811	25,7
Diarrhea	584	26,5	758	17,7	416	13,2
Disentry	76	3,4	65	1,5	72	2,3
Severe Fever	26	1,2	39	0,9	21	0,7
Measles	3	0,1	4	0,1	2	0,1

DHF	65	2,9	124	2,9	67	2,1
Fever No. DHF	193	8,6	228	5,3	135	4,3
Ear problem	113	5,2	182	4,3	154	4,9
Others	508	23,0	1414	33,1	1274	40,3
<b>Total</b>	<b>2.204,00</b>	<b>100,00</b>	<b>4.273,00</b>	<b>100,00</b>	<b>3160</b>	<b>100,0</b>

**Source :** Health Information System Becora,2023

Based on table 1.1, it shows that the number of cases of diarrhea and dysentery always increases, namely in 2021 there were 584 cases (diarrhea) and 76 cases of dysentery, and in 2022, the number of cases of diarrhea was 758, there were 65 cases of dysentery and from January to June 2023 there was a spike in cases namely 416 cases of diarrhea and 72 cases of dysentery.

Likewise, during the period of residence, from 17-29 July 2023, 598 cases were recorded that were handled with the IMCI strategy, of which 62 cases were diarrhea without dehydration and 3 cases dysentery at the Becora Community Health Center. Factors that affect the management of IMCI are caused by the lack of available supporting facilities such as timers, scales, digital thermometers and also limited resources.

According to (Leonard A. S. Dewi, 2021). Diarrhea or often called acute gastroenteritis is bowel movements with a softer or liquid consistency that occurs with a frequency of  $\geq 3x$  within 24 hours. Things to note are the frequency of defecation, the consistency of the stool, and the amount of stool. If the stool consistency is not softer or runny but often it is not diarrhea. Babies who are breastfed often have loose bowel movements and this is not diarrhea either. The results of the study (Utami, 2016), the factors that influence the incidence of diarrhea in children are environmental factors, sociodemographics and human behavior.

According to research results (Daviani, 2019), the factors that cause diarrhea are as follows

**Table 1.2. Distribution of Enabling Factors on the Incidence of Rangkaian Diarrhea**

Independent variable	Diarrhoea		Who squares P-Value	Fisher Exact P-Value	α	Is
	Of	No				
Clean water facilities and infrastructure						No
Yes, meet the requirements	50	125	0,732	00.00	0,05	own connection
Yes, but does not meet the requirements	8	24				
Trash situation						No
Yes, meet the requirements	18	64	0,284	0,00		own connection
Yes, but does not meet the requirements	37	79				
There isn't any	3	19				

**Source:** Daviani, et al, 2019

## METHOD

This exploratory, descriptive study used both quantitative and qualitative methods in conjunction with each other to generate a more-in-depth understanding of the quantitative results. While collecting data, they wish to observe health workers in conducting consultations using the IMCI strategy or not, and the availability of supporting facilities for IMCI implementation. The cases selected for conducting interviews, namely caregivers who brought their child aged 2 months to 5 years with complaints of diarrhea, were considered to meet the inclusive criteria to be selected. The sampling technique used is non-probability sampling with accidental sampling technique.

## RESULT

During the two-week data collection period, 598 cases were recorded, of which 10.4% (n=62) were classified as diarrhea without dehydration and 0.5% (n=3) were dysentery cases. This shows an average of 59-60 cases per day. And also recorded 6-7 cases with the classification of diarrhea without dehydration and dysentery, which is between 6-7 cases per day. Of the 11 mothers who agreed to undergo in-depth interviews with During the period, they conducted in-depth interviews saying that they were satisfied with the services provided by the health workers, they knew that their child had diarrhea and immediately took him for consultation and the officers provided counseling on how to give zinc and ORS at home, explaining the signs of when to return soon as well as the time for a repeat visit.

Lack of supporting facilities such as Recording forms, booklet charts, wall charts, ARI timers, ORS Corners and also only 1 officer who conducts consultations and is assisted by a nurse who covers all child aged 0-59 months and also 6-15 years. One of the important things that motivates health workers to carry out IMCI consultations is regular supervision from the district health office and the Ministry of Health. It was discovered that healthcare workers accuse one another of IMCI implementation in all health facilities, the lack of routine monitoring, evaluation and supervision from the competent authority.

## DISCUSSION

The number of visits per day reached 59 – 60 cases, but only one doctor consulted, this exceeded his capacity so that it was not possible to follow the IMCI implementation procedure. In accordance with the results of Setiawan's research (2019), that IMCI implementing officers are at least 3 people who have attended IMCI training to increase knowledge and understanding of IMCI implementation. As soon as the results of the research (Pinto J. Integrated Management of Childhood Illness (IMCI) implementation at community health centers n Aileu municipality, Timor Leste: Health Workers “Perceptions”, 2023), mutual accusations occurred between officers who had attended IMCI training in its implementation in workplace.

In accordance with IMCI implementation standards, it needs to be supported with adequate facilities to help expedite the IMCI implementation process. Lack of supporting facilities such as Recording forms, booklet charts, wall charts, ARI timers, ORS Corners, can hamper the IMCI implementation process. The results of the research (Setiawan, 2019) show that the availability of facilities and infrastructure consists of the presence of polys and completeness of tools was 83.5%, this was one of the dominant factors that hindered the implementation of IMCI. Likewise the results of research (Wasliah, 2022) supporting infrastructure for the implementation of IMCI includes medical equipment and medicines. Medical equipment consists of ARI Timers, digital thermometers, scales and sterile needles. NLEM drugs are classified as first choice antibiotics (Co-trimoxazole, Trimethotropon, Sulfamethoxazole syrup or tablets), second choice antibiotics (Amoxicillin, Nalidixat, Tetracycline syrup, tablets, capsules), Paracetamol tablets/syrup, vitamin A 200,000 IU or 100,000 IU iron syrup (ferrous

sulfate) or iron tablets, ORS 200cc, eye ointment, pyrantel pamoate tablets, 1% gentian violet and infusion fluids such as RL and 5% Dextrose. As for traditional medicine, such as soy sauce, honey, lime for mild coughs, warm sweet tea/sugar water to prevent low sugar levels and sugar salt solution for diarrhea. And also according to IMCI implementation guidelines in Timor Leste (MoH W., 2015), that each IMCI consultation room must be equipped with ORS Corner, digital thermometer, ARI Timer, booklet chart, wall chart and recording form to make it easier for officers to implement IMCI. Treatment of sick child who visited the Becora Health Center. The IMCI program is a national program that has contributed to reducing morbidity and mortality in Timor Leste but has received little attention from the health authorities through the unavailability of supporting facilities and has not been able to be supervised by the Dili District Health Office and the Timor Leste Ministry of Health.

## CONCLUSION

IMCI is a national program and has contributed to reducing morbidity and mortality in Timor Leste, namely until 2030, it could drop to 15/1000 live births. Lack of support for facilities and infrastructure and a lack of trained IMCI personnel can affect the management of IMCI.

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## Conflict of Interest

Does not have any interest in this research, either politically or intervention from any party.

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