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Research



Evaluation and Implementation of Nutrition Surveillance System in Bukittinggi

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A B S T R A K

Background: Nutritional surveillance monitors nutritional status to inform policy and programme decisions to improve community nutrition, including stunting. Chronic malnutrition and recurring illnesses cause stunting, which is when a child's length or height falls below the health minister's guidelines. Challenges include: not all Posyandu are active/covered low, not all targets have been input into the EPPGBM application (Toddlers and Pregnant Women), the use of the EPPGBM application in Community Health Centres has not been optimal, not all health workers and cadres have received height measurement training, coordination at each level, the monitoring system, and supervision to ensure height measurement quality. Due to its impact on the newborn, the first 1,000 days are critical. Permanent and lasting damage. Providing nutrition assistance at community health centre with surveillance can avoid stunting.

Methods: The employed approach is participatory in nature, wherein partners are engaged to actively participate in various activities, while being supported by a dedicated staff that serves as a valuable resource and facilitator. The data analysis conducted for training purposes is to facilitate the implementation of the stunting surveillance programme, which is anticipated to encompass many sectors. This programme will primarily focus on monitoring and reporting nutrition-related activities, with a particular emphasis on stunting routines.

INTRODUCTION

According to the findings of the 2018 Basic Health Research (Rikesdas), it was observed that a significant proportion of children aged below 5 years (namely toddlers) experience stunting, with a prevalence rate of 30.8%. This implies that a significant number, potentially up to 7 million, of young children in Indonesia currently face the risk of diminished competitiveness in their forthcoming adult years, so impacting the nation's future generation. There has been no substantial alteration observed in the prevalence of stunting in Indonesia throughout the past five years. According to the 2018 Basic Health Research, the prevalence of stunting in West Sumatra is significantly elevated, with a rate of 28.8%. The user did not provide any text to rewrite.

According to the findings of the 2019 Indonesian survey on the nutritional status of toddlers, the prevalence of stunted toddlers, characterised by significant shortness and stunting, in Bukittinggi City stands at 23.44%. This figure exceeds the desired target of less than 20%. Furthermore, based on the performance indicators of the nutrition programme in 2020, there are several indicators that have not been successfully met. For instance, the coverage of children under the age of five is still considered to be 35.9%, falling short of the target of 35%. Additionally, the coverage of children under the age of five receiving vitamin A is

76%, which is significantly higher than the target of 8%. Lastly, the community health centres responsible for conducting nutritional surveys are not operating at an optimal level.

The prioritisation of speeding gains in community nutrition is a key focus in the efforts to accelerate stunting prevention. The goal is to reduce the prevalence of stunting by 10% in the Regional Medium-Term Development Plan (RPJMD) for the city of Bukittinggi, while also aiming to decrease wasting by 7% by the year 2024. To address the issue of stunting and wasting, a set of programme performance indicators (IKP) and activity performance indicators (IKK) have been developed. The ministry's strategic plan for 2024 includes objectives related to the implementation of nutritional surveys in districts or cities, with a target of achieving 100% coverage by 2024. Additionally, the plan aims to enhance the capacity of community health centres in managing malnutrition among toddlers, with a target of reaching 60% capability by 2024. Additionally, the findings of the 2022 e-PPGBM (Community-Based Nutrition Recording and Reporting) survey indicate that a mere 2 out of the total of seven community health facilities in the city of Bukittinggi engage in the practise of nutritional surveillance.

Based on the findings from interviews conducted with the Sub-Coordinator of the nutrition programme, several challenges have been identified in the implementation of strategies to address malnutrition and stunting in the field. These challenges include inadequate coordination in the execution of targeted and sensitive nutrition interventions across all levels (including planning, budgeting, implementation, monitoring, and evaluation), underutilization of existing regulations pertaining to stunting.

In order to address these challenges, it is imperative to effectively implement a nutritional surveillance system. This will enable the attainment of desired objectives while also facilitating an accurate assessment of the performance levels of nutrition surveillance officers at both Health Service facilities and community health centres. Hence, it is imperative to assess the nutritional surveillance system used by the Bukittinggi City Health Service in order to promptly, accurately, consistently, and sustainably gather data on the nutritional status of the community. This information may then be utilised to formulate effective nutritional policies. The provided data encompasses measures of community nutritional achievement and other information that is currently unavailable in routine reporting. The implementation of nutritional surveillance has the potential to enhance the efficacy of nutrition development initiatives and address community nutrition issues promptly, specifically, and with appropriate interventions.

METHOD

The lowest nutritional health surveillance unit in Bukittinggi City is the First Level Health Facility (FKTP), namely the Community Health Center. Already have guidelines for managing nutritional surveillance activities and the existence of guidelines for the management of malnutrition, and based on the Minister of Health's regulation no. 14 of 2019 concerning the technical implementation of nutritional surveillance, which is very useful for obtaining accurate, regular and sustainable information on community nutrition which can be used to determine nutritional policies and appropriate immediate action. .based on Minister of Health regulation no. 4 of 2019 concerning minimum service standards in the health sector. And presidential regulation no. 18 of 2019 concerning the National Medium Term Development Plan for 2020-2024.

The flow of nutritional surveillance starts from the lowest surveillance unit, the community health centre. Puskesmas reports cases, which are summarized every month and reported to the Health Service in quarterly reporting. Community health centres can collaborate with cross-sectors, such as posyandu cadres, poskeskel, food security services, schools, and cross-sectors, in carrying out case screening in the field. Case reporting from sub-district midwives, health posts, hospitals and across sectors in implementing nutritional health surveillance has been carried out well, and there has been collaboration with the Bukittinggi City Health Service.

In filling in and inputting data, regulations change so that reporting becomes irregular. Based on applicable policies regarding nutrition management issues, Republic of Indonesia Minister of Health Regulation Number 21 of 2020 concerning the Ministry of Health Strategic Plan for 2020-2024. The strategic plan states that there are 23 achievements of program indicators that the

nutrition program must implement. Regulations regarding health and nutritional issues have also been regulated in the Bukittinggi mayor's regulations.

Methods for implementing Nutrition Surveillance activities include standards/guidelines for implementing a surveillance activity. Standards/guidelines are guidelines by units in carrying out activities, which can be in the form of:

- a. Surveillance Manual for the Technical Implementation of Nutrition Surveillance
- b. Protocol for health workers managing nutrition
- c. Guidelines for the prevention and management of malnutrition
- d. Technical instructions for providing additional food based on local food for pregnant and malnourished women,
- e. Technical instructions for nutrition education through providing local food-based food
- f. Local food recipe book for toddlers and pregnant women

1. Data collection

The type of data collected in conducting surveillance is the data used is secondary data obtained from the Community Health Center in Working Area 7 (seven) Bukittinggi City Health Center. The data source for surveillance activities comes from reviewing the puskesmas e-PPGM report documents. The frequency of data collection on nutritional surveillance activities is carried out monthly. One surveillance officer passively carries out The data collection process by receiving data from health service facilities in the form of EPPGM data reports. Data collection was obtained from Community Health Centers in the working area of the Bukittinggi City Health Service, which was collected online where the Health Service made an online summary of 7 Community Health Centers. The data collection method was done through a document review of EPPGM data. The data collected includes nutritional status data when data collection is carried out every month.

2. Data processing

Data processing that is carried out well will provide quality information about a disease or other health problem. Furthermore, the results of the processed data can be presented in an informative and exciting form. So it will help users to understand the situation presented. Data processing is carried out by surveillance personnel at the Bukittinggi City Health Service through several processes after the data is collected. Before the data is processed, the data that has been collected is checked for completeness, then classifies the data and enters the data or enters the data in a computerized manner. However, the reality is that at the Bukittinggi City Health Service, data processing results have yet to be made into tables and graphs. Data is processed only for specific purposes if needed.

3. Data analysis

Data analysis was carried out using descriptive epidemiological methods to get an idea of the distribution of nutritional status based on age, sex, weight, and TB in the Bukittinggi City Health Service. Surveillance officers do not analyze data using Excel and Word programs presented as tables and graphs. The data analysis process is not carried out routinely every month.

RESULT DAN DISCUSSION

Following the implementation of an intervention on the Nutrition Surveillance System within the Bukittinggi City Health Service, a subsequent evaluation of the intervention is conducted with the expectation of obtaining the following evaluation outcomes:

1. The determination of nutritional human resources in the Bukittinggi City Health Service does not currently adhere to HR norms, as it lacks a comprehensive examination of positions and workload.
2. The accurate execution of nutritional surveillance data analysis is crucial. Surveillance personnel have the capacity to conduct analysis employing both descriptive and analytical methodologies. The examination of surveillance data does not offer guidance in ascertaining the extent of the issue, the trajectory of a situation, the causal relationships of an occurrence, or the ultimate conclusion.
3. The dissemination of surveillance activity results has been effectively executed. The findings of the analysis have been shared with relevant stakeholders and many sectors, including community health centres. Nevertheless, there are notable distinctions between cross-sector establishments and private hospitals located in the Bukittinggi city region.
4. By arranging a focus group discussion to analyse the outcomes of the mass weighing conducted in August 2022, based on the data entered in the electronic Public Procurement Goods and Services Monitoring System (e-PPGBM), the findings presented in the table below become evident:

No	District	Target	weighed	Weighing Coverage	Underweight	Stunting	Wasting
1.	Aur Tajungkang	791	380	48,04	9,21	11,84	6,32
2.	Benteng pasar Atas	138	40	28,99	7,50	10,00	2,50
3.	Kayu Kubu	384	209	54,43	5,26	5,26	3,83
4.	Bukit Apit Puhun	517	331	64,02	8,46	12,39	5,14
5.	Bukit Cangang	258	94	36,43	14,89	20,21	7,45
6.	Tarok Dipo	1839	616	33,50	11,85	15,75	5,84
7.	Pakan Kurai	664	191	28,77	12,04	17,80	2,09
8.	Campago Ipuah	985	421	42,74	11,40	11,88	9,98
9.	Campago G. Bulek	675	592	87,70	9,12	10,81	6,59
10.	Pulai Anak Air	511	234	45,79	4,27	7,69	1,28
11.	Koto Selayan	139	93	66,91	4,30	3,23	1,08
12.	Garegeh	252	145	57,54	8,28	4,83	2,76
13.	Manggis Ganting	493	244	49,49	9,43	5,33	2,05
14.	Kubu G. Bancah	553	306	55,33	8,17	13,73	1,31
15.	Puhun Tembok	658	227	34,50	13,66	22,03	9,25
16.	Puhun P. Kabun	651	323	49,62	8,05	6,50	7,43
17.	Belakang Balok	302	112	37,09	8,04	11,61	7,14
18.	Sapiran	333	169	50,75	12,43	16,57	7,10
19.	Birugo	624	263	42,15	10,27	16,73	6,46
20.	Aur Kuning	698	339	48,57	10,03	18,88	7,96
21.	Pakan Labuh	293	195	66,55	11,79	22,05	8,21
22.	Kubu Tanjung	142	138	97,18	14,49	17,39	7,25
23.	Ladang Cangkiah	187	112	59,89	8,04	16,96	3,57
24.	Parit Anatang	137	100	72,99	10,00	11,00	13,00
Bukittinggi		12224	5874	48,05	9,75	13,02	5,91

Source: e-PPGBM mass weighing data for August 2022

The outcomes of consultations conducted with nutrition programme administrators at community health clinics pertaining to the issue of suboptimal attainment of mass weighing outcomes in August 2022. The outcomes of the discourse are depicted in the subsequent table:

No	Public Health Center	Problem
1.	Guguk Panjang	The target data used is Pusdatin data, not actual data in the field, so weighing coverage is low, and not 100% of children are weighed, where the heavy-duty of managers is that weighing coverage using Pusdatin data must reach a minimum of 85%. The solution is to carry out training for cadres with BOK funds.
2	Campago Ipuah	With the change of new cadres and the transfer of knowledge not being carried out, the cadres asked to resign. During a mass weigh-in of regional supervisor cadres. With the large number of cases of malnutrition found based on the mayor's regulation that for the disbursement of assistance to malnourished children, Twenty-five thousand per day must be disbursed from August to January. If not disbursed, the funds are returned.
3	Rasimah Ahmad	The market's set targets for weighing have not been effectively implemented due to a lack of understanding among certain new cadres regarding the procedure for weighing toddlers. Additionally, there is a tendency for cadres to overlook e-books sent via the WhatsApp group, and no training has been provided to address these issues. Consequently, in order to meet the unachieved targets, it is necessary to conduct weighing activities. Please provide additional context or information for me to assist you further.
4	Mandiangan	The provisions for residents who have just moved in have been settled for at least six months. They are considered residents because, in Mandiangan, many people contact their place of residence, and the cadres sent for training are still old cadres, not new cadres. Refraction will undoubtedly occur if weighing and data entry are carried out again. Two cases of malnutrition were found, but the targets were not identified, which was considered a loss. The staff who carried out the weighing were Ford De Kock students.
5	Rasimah Ahmad	The data entered still contains duplicate data

This Focus Group discussion activity seeks to examine health issues, particularly those pertaining to the accelerated stunting reduction programme with 1000 HPK escorts, in the context of the planned implementation in Tigo Baleh sub-district. The insights gathered from discussions with nutrition programme managers at community health centres serve as the basis for this exploration. The activity method employs the utilisation of Focus Group Discussion (FGD) in conjunction with in-depth interview procedures, facilitated by a trained individual, to gather information from the designated target group, specifically posyandu cadres. The facilitators utilised the presentation of International Electrotechnical Commission (IEC) material during discussion activities as a means to enhance the participants' understanding of their respective issues. The successful outcome of this activity can be attributed to the favourable reception and enthusiastic engagement demonstrated by the participants. This objective can be achieved through a range of intervention strategies, which encompass the following:

1. Provision of guidance pertaining to food and nutrition in a comprehensive manner,
2. Provision of guidance regarding the nutritional composition and advantages of indigenous food sources,
3. Provision of guidance concerning diverse processed products derived from local food sources,
4. Delivery of training programmes focused on food processing techniques utilising local food resources.

The findings of this activity demonstrate that.

1. There has been a notable surge in public awareness regarding food and nutrition, accompanied by advancements in local food processing techniques aimed at mitigating the prevalence of stunting.
2. The local community possesses the necessary expertise to engage in the processing of food products that are sourced locally.
3. The acquisition and application of this information and skill set can be leveraged as a foundation for a business venture aimed at addressing societal needs, hence potentially reducing instances of stunting.

CONCLUSION

The implementation of nutrition surveillance within the Bukittinggi City Health Service follows a staged approach, with the community health centre serving as the lowest level of implementation. The efficacy and efficiency of surveillance activities are significantly bolstered by the quality of management inside the surveillance system. The administration of a nutrition surveillance programme encompasses the components of input, process, and output. The input encompasses five key components, commonly referred to as the 5M framework. These components are People, Methods, Materials, Money, and Market. People represent the available human resources, Methods refer to the various implementation procedures, Materials encompass the necessary hardware, software, stationery, and computers, Money pertains to the finances allocated for the surveillance programme, and Market denotes the intended audience for disseminating information. The surveillance system's effectiveness is heavily reliant on its input components, which encompass data collection, compilation, analysis, interpretation, reporting, and subsequent action. Among these components, the availability of skilled and capable human resources plays a crucial role in generating data that can be utilised effectively. In order to develop health improvement policies.

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REFERENCE

- [1] Mohammad Rachmat. *Surveyance Gizi*. Pusat Pendidikan Sumber Manusia Kesehatan Badan Pengembangan dan Pemberdayaan Sumber Daya Manusia Kesehatan Edisis Tahun 2017;1(6) 6-8.
- [2] Peraturan Menteri Kesehatan Republik Indonesia Nomor 45 tahun 2014 Tentang Penyelenggaraan Surveilans Kesehatan, (2014).
- [3] Notoadmojo S. *Metodologi Penelitian Kesehatan*, Jakarta: Rineka Cipta. 2012.
- [4] Kementerian Kesehatan RI. *Undang-Undang Republik Indonesia Nomor 36 Tahun 2009 Tentang Kesehatan*.
- [5] Kemenkes RI. *Peraturan Menteri Kesehatan RI nomor 13 tahun 2022 tentang Perubahan atas peraturan menteri kesehatan nomor 21 tahun 2020 tentang rencana strategis Kementerian Kesehatan tahun 2020-2024*. 2022;(3):592.
- [6] Rahayu A, Yulidasari F, Putri AO, Anggraini L. *Study Guide - Stunting dan Upaya Pencegahannya*. Yogyakarta: CV Mine; 2018.
- [7] Hanindita M. *Mommyclopedia: Nutrisi di 1000 Hari Pertama Kehidupan Anak*. Jakarta: PT Gramedia Pustaka Utama; 2018. 8 p.
- [8] Kurniati PT, Sunarti S. *Stunting dan Pencegahannya*. Jawa Tengah: Lakeisha; 2020.
- [9] *Scaling Up Nutrition. Country Progress in scaling up nutrition*. 2013.
- [10] General Assembly. *United Nations Transforming Our World: The 2030 Agenda for Sustainable Development*. NY, USA: Division for Sustainable Development Goals: New York; 2015.
- [11] UNICEF, WHO, The World Bank. *Levels and trends in child malnutrition UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates Key findings of the 2021 edition*. World Health Organization. Geneva: World Health Organization; 2021. 1-32 p.
- [12] UNICEF, WHO, The World Bank. *Levels and trends in child malnutrition: key findings of the 2019 edition of the Joint Child Malnutrition Estimates*. Geneva: World Health Organization; 2020.

- [13] Sentongo P, Ssentongo AE, Ba DM, Ericson JE, Na M, Gao X, et al. Global, regional and national epidemiology and prevalence of child stunting, wasting and underweight in low- and middle-income countries, 2006–2018. *Sci Rep.* 2021;11(1):1–12.
- [14] Riset Kesehatan Dasar 2018. Jakarta: Badan Penelitian dan Pengembangan Kesehatan; 2018.
- [15] Kemenkes RI. Situasi Balita Pendek (Stunting) di Indonesia. Buletin Jendela Data dan Informasi Kesehatan. Jakarta: Kementerian Kesehatan RI; 2018.
- [16] WHO. Global nutrition targets 2025: Stunting policy brief. Geneva: World Health Organization; 2014.
- [17] Kemenkes RI. Buku Saku Hasil Survei Status Gizi Indonesia (SSGI) 2022. Jakarta: Kementerian Kesehatan RI; 2022.
- [18] Ulfah, B. (2019). Faktor-Faktor Yang Berhubungan Dengan Kejadian Status Stunting Pada Balita Usia 24-59 Bulan Di Wilayah Kerja Puskesmas Rawat Inap Cempaka Banjarbaru Tahun 2018. *Siklus: Journal Research Midwifery Politeknik Tegal*, 8(2), 122–129. <https://doi.org/10.30591/siklus.v8i2.1356>
- [19] Illahi, K. R. (2017). Hubungan Pendapatan Keluarga, Berat Lahir Dan Panjang Lahir Dengan Kejadian Stunting Balita 24-59 Bulan Di Bangkalan. *Manajemen Kesehatan*, 3(1), 1–14.
- [20] Permatasari, D. F., & Sumarmi, S. (2018). Differences of Born Body Length, History of Infectious Diseases, and Development between Stunting and Non-Stunting Toddlers. *Jurnal Berkala Epidemiologi*, 6(2), 182. <https://doi.org/10.20473/jbe.v6i22018.182-191>
- [21] Rahayu, R. M., Pamungkasari, E. P., & Wekadigunawan, C. (2018). The Biopsychosocial Determinants of Stunting and Wasting in Children Aged 12-48 Months. *Journal of Maternal and Child Health*, 03(02), 105–118. <https://doi.org/10.26911/thejmch.2018.03.02.03>
- [22] Kemenkes RI. (2018a). Data dan Informasi profil Kesehatan Indonesia 2018.
- [23] Berhe K, Seid O, Gebremariam Y, Berhe A, Etsay N. Risk factors of stunting (chronic undernutrition) of children aged 6 to 24 months in Mekelle City, Tigray Region, North Ethiopia: An unmatched case-control study. *PLoS One.* 2019;14(6):1–11
- [24] Uliyanti, Tamtomo, D. ., & Anantanyu, S. (2017). Faktor Yang Berhubungan Dengan Kejadian Stunting Pada Balita Usia 24-59 Tahun. *Jurnal Vokasi Kesehatan*, 3(2), 1–11.
- [25] Simanjuntak, B. Y., Haya, M., Suryani, D., Khomsan, A., & Ahmad, C. A. (2019). Maternal knowledge, attitude, and practices about traditional food feeding with stunting and wasting of toddlers in farmer families. *Kesmas*, 14(2), 58–64. <https://doi.org/10.21109/kesmas.v14i2.2712>