Stunting as in indicator for poverty : study in poor villages in West Sumatera, Indonesia 1994-1995

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Abstrak

The objective of the present study was to evaluate and to compare the nutritional status of households targeted by the IDT program (POKMAS members), with those households not targeted (non-POKMAS) from the same village, and with households in non-IDT villages in West Sumatra at the start (1994) of the program, after a one year period and its determinants.
For this purpose, a quasi-experimental study was applied. A total number of 38 IDT villages and 6 non-IDT villages were selected using proportionate random sampling from the list of less-developed villages in West Sumatra. ln each IDT village 40 households (20 POKMAS and 20 non-POKMAS) which have children under live and live to ten years of age were selected randomly, while in each non-IDT village 40 households which have children under live and live to ten years of age were selected using the same' method. At the beginning of the IDT program's implementation (baseline) and one year after the implementation of the IDT program (follow up), anthropometric measurements of the children and non-pregnant women, household's food consumption using food Frequency questionnaire and 24 hours recall for a sub sample, socio-economic, health and environmental condition?s assessments using questionnaires were conducted. Student t-test, ANOVA and logistic regression using SPSS for Windows version 6.0 were performed in this study. The study had several limitations such as the relatively short duration between the baseline and the follow up study, while the income generating activities done by most of the POKMAS were relatively long-term income generating activities. As a result some of the expected results and impacts could not be observed yet.

The nutritional status of the children under tive and tive to ten years of age in the surveyed villages in 1994 was not favorable with the highest prevalence of stunting (20.9% and 53.9%) followed by underweight (17.0% and 40.0%) and wasting (7.4% and 19.5%). After one year (1995) the prevalence of stunted children under five years of age in the POKMAS households and in non-POKMAS households was not lower compared with the prevalence in 1994 (58-4% vs. 53.1% and 41.5% vs. 30.6%), while the prevalence of stunted children five to ten years of age in the POKMAS households and in non-POKMAS households in 1995 tended to be lower compared with the prevalence in 1994 (50.4% vs. 53-9% and 38.4% vs. 40.4%). The best improvement in nutritional status in the stunted, underweight as well as the wasted was observed among the most retarded in growth. In 1994, the prevalence of chronic energy deficiency (CED) among non-pregnant women of the POKMAS households was significantly higher compared with the households in non-IDT village (I5.4% vs. 9.1%), There was no significant difference in the prevalence of CED among non-pregnant women in 1994 compared with 1995 (15.8% vs. 15.4% in POKMAS households, 11.8% vs. 13.8% in non-POKMAS households in IDT villages). The diets of the surveyed households were in general totally different from the food sold in "Padang" eating places, which are characterized, by its predominantly high animal protein dishes. The diets ofthe surveyed households generally consisted of rice as the staple food and side dishes such as boiled cassava leaves or young jack fruit in coconut sauce, fried small dried

fish and hot pepper sauce (Indonesia: sambal). In 1994 the percentage of households which complained about food-shortage among the POKMAS households in IDT villages was about twice higher (62%) compared with the non-POKMAS households in IDT villages (42%), and three times higher compared with the households in non-IDT villages (28%) Regarding the selection criteria of households to be given funds, this study observed that there were various criteria among villages. As a result not all households given IDT funds could be considered poor. At the start of the lDT program, the selection of the income generating activities of the POKMAS used the bottom up approach, but later on the top down approach was still stronger influencing the process. lt could be observed that the income generating activity of most of the POKMAS was cow fattening while less than 20% of the POKMAS households had experience in cow fattening activity. The sanitation and hygiene practices (sources of the drinking water; place for garbage disposal and place for defecation) of the POKMAS households was worse compared with the non-POKMAS households in the same villages. In this study it was observed that the POKMAS households were households with undemourished children especially stunted children, It means that stunted children were the characteristic for poor households. The predictors for stunting of the children at the baseline were the following: the place for garbage disposal (in the garden, river, lake), health problems in daily life, the POKMAS households did not have a separated kitchen, children did not get measles vaccination, mother was pregnant, having problems with the environment, the age ofthe child (under five), chicken consumption less than once per week and the mother had more participation in social activities.

It can be concluded that the indicators of the poverty situation were a reflection of the living condition of the households (socioeconomic, environmental condition, housing condition) and confirm that the targeting of poor groups within villages used in this study was relatively proper. The child?s nutritional status particularly stunting is a reflection of the poor living condition; the prevalence of stunting at village level is a good indicator for targeting of a poverty alleviation program. The IDT program may have improved income however not necessarily alleviate poverty. The IDT program was emphasized on improving income however the households targeting was not clear; not all POKMAS households could be considered poor and the IDT program did not cover the other factors influencing poverty. Considering the feasibility and more practical use of the height and length measurements in young children for community studies, stunting should be used in the poverty alleviation program, nutrition surveillance program and other nutrition intervention programs. However further studies to investigate whether stunting could be used as indicator of poor households needs to be conducted. Further studies in different locations with ditferent socioeconomic, cultural, and environmental situations are needed to investigate approaches the most proper for various areas in indonesia. Referring to the most recent concept of poverty the key of the problem of poverty lies in the accessibility of the individual, household or community to the resources of basic needs such as food, health service, clothing and shelter, primary education and social cultural life. To alleviate poverty th IDT program should include activities to provide and improve the resources of basic needs. The IDT program at present is only providing one of the tools to improve resources.