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AUSTRALIA INDONESIA GOVERNANCE RESEARCH PARTNERSHIP

Evidence-based decision
making to strengthen
local governance:
nutritional health
interventions in Bantul
and Gunungkidul

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Australia Indonesia Governance Research Partnership
Crawford School of Economics and Government
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About this policy brief

Since 2001, district governments have had the main responsibility for providing public health care in Indonesia. One of the main public health challenges facing many district governments is improving nutritional standards, particularly among poorer segments of the population. Developing effective policies and strategies for improving nutrition requires a multi-sectoral approach encompassing agricultural development policy, access to markets, food security (storage) programs, provision of public health facilities, and promotion of public awareness of nutritional health. This implies a strong need for a coordinated approach involving multiple government agencies at the district level. Due to diverse economic, agricultural, and infrastructure conditions across the country, district governments' ought to be better placed than central government both to identify areas of greatest need for public nutrition interventions, and devise policies that reflect local characteristics. However, in the two districts observed in this study—Bantul and Gunungkidul—it was clear that local government capacity to generate, obtain and integrate evidence about local conditions into the policy-making process was still limited. In both districts, decision-makers tended to rely more on intuition, anecdote, and precedent in formulating policy. The potential for evidence-based decision making was also severely constrained by a lack of coordination and communication between agencies, and current arrangements related to central government fiscal transfers, which compel local governments to allocate funding to centrally determined programs and priorities.

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Introduction

Availability of adequate nutrition is vital to the health and well-being of citizens and the economic and social development of society. In spite of significant progress, much remains to be done to address nutritional deficiencies within the Indonesian population and to achieve targets set by the Indonesian government and the international community.

The first Millennium Development Goal (MDG) is the eradication of extreme poverty and hunger. Target 3 under this goal is to halve, between 1990 and 2015, the proportion of people who suffer from hunger, focusing on reducing the prevalence of underweight children less than five years of age and the proportion of the population below the specified minimum level of dietary energy consumption. Indonesia is also a signatory to various international human rights conventions that set out states' obligations in respect of nutrition. For example, Article 24 of the *Convention on the Rights of the Child* states that parties shall take appropriate measures to, amongst other things, "combat disease and malnutrition ... and to ensure that all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition (...)" (United Nations, 1990).

In 2001 the national government devolved responsibility for managing health-related issues, including nutrition, to district governments. Decentralisation was intended to allow policymakers to devise policies and programs that were more responsive to the needs of local communities and take advantage of local resources and expertise. The national government provides guidance to the district governments through the minimum health care standards (SPM bagi Kesehatan) (Ministry of Health, 2008) and other standards to ensure, to some degree, consistency between districts across Indonesia. The SPM sets out benchmarks for district governments to achieve in relation to a number of health related indicators. The Food National Action Plan 2005-2009 has set a national target to reduce cases of severe malnutrition in children less than five years of age to five per cent of that population. UNICEF reports that in the period 2000-2007, nine per cent of Indonesian children less than five years of age were severely underweight and in the same period between 23 to 28 per cent of Indonesian children less than five years of age were moderately or severely underweight (UNICEF, 2009). Strengthening public health governance at the district level is seen as a strategic priority for combating malnutrition. This research reviewed the governance strategies adopted by the districts of Bantul and Gunungkidul located in the Special Region of Yogyakarta (Daerah istimewa Yogyakarta).

Despite a serious earthquake (Bantul) and localised famine (Gunungkidul) these districts are successfully meeting malnutrition reduction targets. Since assuming responsibility for the management of public health these jurisdictions have reduced the incidence of severe malnutrition in children less than five years of age from over six per cent, prior to decentralisation, to 0.5 per cent in Bantul and 0.8 per cent in Gunungkidul in 2008. This research aims to understand how governance contributed to these gains and identify scope for public health programs to generate further improvement. Many of the barriers to good nutrition and governance limitations identified in these two districts are present across Indonesia.

Challenges to good nutrition

Multiple factors contribute to inequalities in nutritional health across Indonesia. Geology and geography determine what local foods can be grown. Mountainous topography and poor transportation infrastructure often limit access to non-locally grown food and health services. Local traditions influence what foods can and 'should' be eaten and by whom. For example, a widespread belief that fish consumption leads to the development of worms in children creates resistance to eating fish. Fish is an accessible and valuable protein source and negative attitudes towards it indicate the importance of education to promote awareness of healthy eating. Individuals, families and communities may lack knowledge about the nutritional value of some local foods and processing techniques that can be used to enhance nutritional value. Children who have been exposed to it increasingly prefer manufactured and fast food to locally produced foods prepared at home.

Consumption of certain foods is often associated with particular levels of social status. For example, those who depend upon cassava as a staple are assumed to occupy a lower social status compared to those who eat rice. Nutritionally, there is little difference between them but cassava is traditionally eaten on its own, whereas rice is eaten with accompaniments increasing its nutritional value. There is a surplus of rice production in Gunungkidul, but as rice is seen as a tradable commodity, diets often continue to be dominated by cassava, in spite of its inferior prestige value.

The primary determinate of poor nutritional status is of course poverty. It is a significant challenge in parts of both districts. In one village, more than 50 per cent of family households live below the poverty line (Government of District Gunungkidul, 2007). Ensuring household food security is often made more difficult by large family sizes. Religious and cultural values often influence family size, particularly where religious leaders are explicitly opposed to family planning.

Sustainable and efficient solutions to nutritional deficits must be local. This means improving local production of nutritional foods, and increasing consumption of those foods. Public awareness of both what can be grown locally, and how to maximise the nutritional potential of local foods, is therefore vital. It is in this area that considerable scope for local governments to play an increased role exists. Government agencies and non-local NGOs may not know how to support local food use. The concept of living local food storage (*lumbung pangan*) could be a valuable mechanism to address food security issues and nutritional problems in communities. In Gunungkidul, living local food storage is part of the village food security program (*desa mandiri pangan*). The program enables local communities facing a crisis to survive on stockpiles of local staple foods. Living local food storage was historically part of the local wisdom in all villages in Java. Since

the Soeharto era the concept of *lumbung pangan* has been substituted with a national food storage scheme coordinated by Bulog (*Badan urusan logistik – Logistical Affairs Agency*). Local food storage stockpiles locally accepted staple foods, whereas the national program may include foods, such as rice, that are not part of the local culture. It also gives the community a role and responsibility for village food security – an important way to get communities involved in governance at the local level.

Local governance interventions in public nutrition

Bantul

Bantul district government has adopted a predominantly top-down approach focusing on coordinating the operations of its bureaus. The key elements of its structure focus on setting clear priorities for coordinated intervention, establishing accountabilities for key governance actors, and creating incentives for actors to make real progress in addressing key issues. The DB4-MK (*Daerah Bebas 4 Masalah Kesehatan – Area free of four health problems*) program which commenced in 2007 aims to make significant progress in reducing the prevalence of four health problems: i) maternal mortality; ii) infant mortality; iii) dengue hemorrhagic fever; and iv) malnutrition. Using a legal instrument to create priorities sends a signal about the importance of these issues and indicates that coordinated and integrated efforts to address them are required from government actors. It also justifies budgetary allocations and hence addresses political issues around resource allocation. This program is reinforced by the Foster Father Program (*Bapak Asuh*) where the head of every local bureau is assigned responsibility for achieving the DB4-MK goals in sub-districts that become the head's "child". The Foster Father Program enables collaboration amongst bureaus in Bantul to further these goals.

To further collaboration, every three months the district head (*bupati*) convenes a meeting to discuss problems and solutions and improve coordination. The heads of local bureaus, heads of sub-districts, and other government officials must participate. The DB4-MK also creates an incentive structure – the program provides annual rewards of 200 million rupiah for sub-districts which are successful in achieving the DB4-MK priorities. This program was further extended to individuals, providing a 200 thousand rupiah reward if they identify a person suffering from tuberculosis, an illness connected with malnutrition.

At the community level, community volunteers were committed to community well-being and have instituted innovative schemes to improve service delivery in the face of geographical difficulties which make accessibility difficult. In some villages volunteers have combined integrated child health services (*Pos pelayanan terpadu/posyandu*), with early childhood education (*pendidikan anak usia dini*) and small scale alternative income generation activities to support nutritional development. Parents, usually mothers, when accessing the *posyandu* are encouraged to market goods they have produced, such as cakes, clothing and other items. Anecdotal evidence suggests these innovations create incentives for the community to access health and education services, as well as providing opportunities to generate additional income.

Gunungkidul

The district of Gunungkidul has encouraged a more bottom-up approach to public health governance, encapsulated in its policy, *Gunungkidul Healthy 2010*.

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It seeks closer cooperation with NGOs, particularly faith-based organisations, and also uses community volunteers. In remote areas, such as Soko, in Gunungkidul, where access is quite difficult, community volunteers encouraged utilisation of local foods, such as *tepung garut* (a variety of flour), in the food supplementation program. Consistent with the aims of the village food resilience program community volunteers developed a non-wheat, non-rice based supplement as an alternative dietary option.

Governance challenges

One of the governance challenges identified in both districts is that although the goal of improving nutrition is primarily a public health issue, nutrition levels are closely tied to the broader economy, and especially production and marketing in the agricultural, livestock and fisheries sectors. This implies an integrated cross-sectoral approach, but at present the approach is still determined by sectoral interests. One informant described the various bureaus involved as adopting an "ego-sectoral" approach which creates distinct silos of activity for each bureau. Nutrition and other health-related programs are often not a priority for departments overseeing forestry, agriculture, fisheries and animal husbandry, or the Integrated Data Processing Offices. Due to lack of effective coordination, it is difficult to integrate nutritional programs between bureaus and there are some overlapping programs. The measures adopted in Bantul have been successful in improving coordination between bureaus, although participants noted that coordination was always an area that can be improved. In Gunungkidul challenges to effective coordination were noted as a central concern.

Development planning meetings for health (*musrenbang untuk kesehatan*) were important, as local budgets are ostensibly created based on input from the *musrenbang* process. In Gunungkidul, community members, community or faith based organisations and the heads of community health centres (*puskesmas*) who often play key roles in delivering nutritional programs, were often not adequately involved in the planning and evidence-gathering processes around public health. As the users and deliverers of such interventions, it would seem important that these voices are heard and considered so that nutritional interventions can be as effective as possible when they are delivered in communities. The ability of these actors to contribute to resource allocation processes is hampered by a lack of understanding of constraints imposed by the national level, within which the districts operate. In particular, there is little public understanding of the indicators set out by the national government for evaluating nutritional interventions (the SPM). Often priority setting is exercised without reference to the different tools of measurement at different levels of government (district, sub-district, village). The SPM as a yardstick is given little weight in the actual evaluation process at the local level in community health centres.

The implementation of the present laws regarding food, namely *Act Number 7 year 1996 on Food* as well as *Government Regulation Number 68 year 2002 on Food Resilience* are perceived by some stakeholders, in Gunungkidul, as being ineffective in responding to local needs. For example, land and climate conditions in some parts of Gunungkidul where the soil is less fertile means that cultivation of some crops, like soybeans, which are funded through the food resilience program, is likely to be unsuccessful. The national food resilience program lacks flexibility to support the planting of crops more suitable for local land conditions and local farming practices. In contrast, Bantul has more fertile land which can support growing crops at the centre of the resilience program and expressed no concerns about its implementation.

One concern associated with decentralisation was the capacity of district government institutions to respond to public health challenges. Whilst the bureaucracies in both districts have implemented a range of policies and processes, some concerns were expressed about effective parliamentary oversight with some respondents from Gunungkidul noting a lack of capacity amongst local parliamentarians. Information is not routinely provided to parliamentarians and so they must request it from the bureaus. In some cases in Gunungkidul, district officials did not respond to summonses to attend parliament and provide routine information about data, policies and programs. Parliamentarians face difficulties accessing in a timely fashion locally generated health-related data (for example, health surveillance data, and maternal morbidity data). They should be able to access national data collected by the Bureau of Statistics but parliamentarians may not understand the implications of raw data and how it supports policy development. The local parliament has no support staff of its own qualified to undertake research or provide policy analysis.

A shortage of trained personnel with the nutritional expertise necessary to educate people is a national and international problem (Government of District Gunungkidul, 2007). Community volunteers are highly motivated to support families and communities in need. Instead of recruiting those with formal skills, an investment in training and engaging volunteers in the process of supporting communities, as is underway in Gunungkidul, may be the way to proceed in the future. However, it is also becoming difficult to recruit sufficient community nutrition volunteers (*kader gizi*) for the most remote areas.

The final significant governance challenge identified by participants in this research is uncertainty in budget allocations. Although regional autonomy has delivered districts extensive autonomy to determine the allocation of fiscal resources, many districts, including the two studied in the current research, are heavily reliant on central government funding to make up shortfalls in locally-generated revenue to fund budgets. Often central government transfers come with pre-determined uses, and are conditional on district governments contributing to programs from local revenue. This means programs driven by national-level priorities might be funded at the expense of local policy initiatives. This situation undermines district governments' ability to respond to local pressures and demands, and discourages long term planning and prioritisation. As an example, special allocation funding for nutrition from the central government, *Dana Alokasi Khusus* (DAK), for Gunungkidul, must be spent on infrastructure support. Meanwhile, funding for central government programs that had great importance locally can be discontinued. A campaign to promote fish consumption at elementary schools is an example of a program with high local relevance sacrificed in this way.

Evidence-based decision making

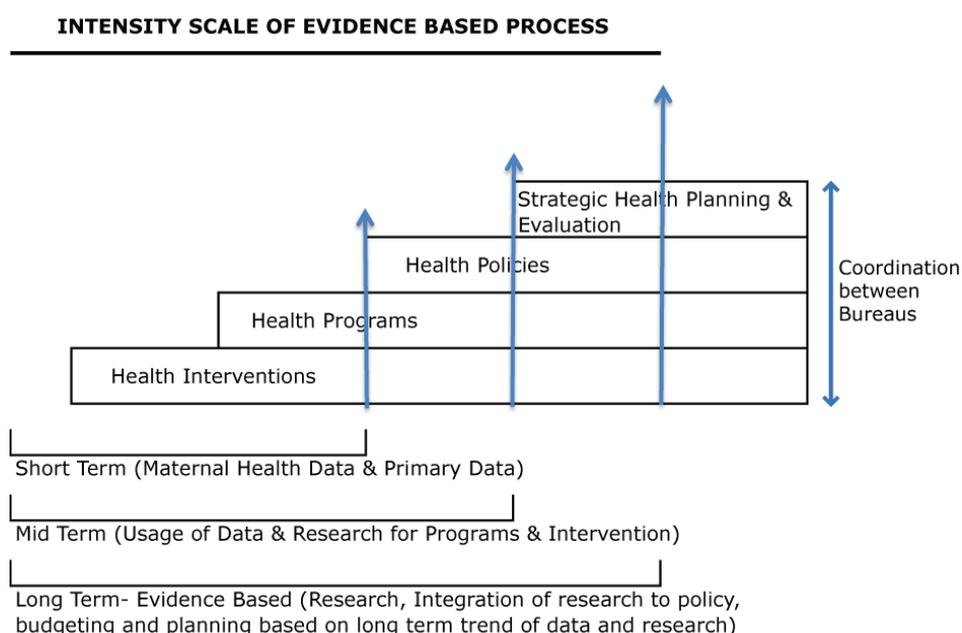
Evidence based decision-making (EBDM) in public health has been defined as "the systematic application of the best available evidence to the evaluation of options and to decision-making in clinical, management and policy settings" (Canadian Health Services Research Foundation, 2000). EBDM is important as it helps to ensure interventions, programs and policies are effective as well as sustainable, ensures resources are used efficiently, and at the same time increases quality and accountability. One of the main aims of this project was to assess the extent to which EBDM is used by district governments to formulate policies and procedures relating to nutritional health. Figure 1 sets out the framework through which we conducted this assessment. In general we concluded that both districts were at the

low to mid-term range. Both districts demonstrated some level of integration and coordination between bureaus. They used raw data to develop policies, programs and interventions, yet neither district seemed to integrate evidence effectively into long-term planning.

Reports show that public health related policies and programs are often developed based on anecdotal evidence (Brownson et al., 1995). In both districts, policymakers tend to use data from *posyandu* (integrated health posts) and/or *puskesmas*, their personal experiences, community values, intuition, and news media reports to draft interventions, programs and policies in nutrition and community health. Not all officials understand the importance of using scientific evidence, not just data, from which to develop nutrition and public health related programs. Leaders from all levels of the governance process need to commit to increasing the use of EBDM to inform policy-making. Those who do adopt an EBDM approach report difficulties in integrating research results into policy development processes because of a culture that sees research as irrelevant and is not geared to using research to inform policy. Policymakers may perceive research as irrelevant because it does not directly engage with what the bureaus consider the real problems in public health and may not address the local context. Also they report a lack of time to gather data, analyse and apply it and knowledge translation difficulties. Some decision-makers may not be receptive to information generated outside a familiar context – “ego-sectoral” attitudes may not just occur between bureaus within a district but also between districts. Capacity building needs to occur to support the development of EBDM within the bureaus.

This research identified some difficulties with data collection and integration; barriers that impact upon the effective use of that data in the long-term development of policies, procedures and interventions. The development of information management systems has occurred on sectoral lines. For example, in Gunungkidul, the Food Resilience Agency, (*Badan Penyuluhan dan Ketahanan Pangan*), collects data relating to damage to the soil, the Regional Planning and

Figure 1: Intensity scale of the evidence based process for the creation of nutritional policies, procedures and interventions



Development Agency collects data relating to numbers of poor families, whilst the Health Bureau collects health-related data from the *puskesmas*, community health centres, such as on protein deficiency. This data is all relevant to the development of nutritional policies and procedures as it relates to health, food security and income factors that determine or are indicative of nutritional status. To enable at least some EBDM this data needs to be consolidated to provide decision-makers with the big picture. There are no integrated information systems and thus no effective data sharing amongst different government bureaus. Work is underway in Bantul to design a system to better consolidate data gathered by different bureaus. It began with the bureaus reaching an agreement as to what were the most relevant and important indicators that should be monitored to develop nutritional policies and programs and which combine poverty and vulnerable village data. Bantul's poverty data set contains 11 indicators. The vulnerable village data set contains three indicators: namely food production data obtained from the Agriculture Bureau, energy protein deficiency data from the Health Bureau and poverty data from the Family Welfare, Women's Empowerment and Family Planning Bureau. There is some resistance to data consolidation in Gunungkidul because of "ego-sectoral" attitudes with each bureau regarding its data as the most important and disregarding the usefulness of inputs from other agencies into its policy-development process.

The lack of the ability to consolidate data is also an issue between national and district governments. For example, most of the nutritional programs carried out in Gunungkidul are centrally-driven programs. Some in Gunungkidul suggest the programs use indicators that do not accurately reflect local conditions or needs. For example, the national government is said to use poverty related data from the Central Statistics Agency (*Badan Pusat Statistik/BPS*) to set budgets, whilst the districts have their own data from the Regional and Development Planning Agency (*Bappeda*) and other bureaus which might more accurately reflect local conditions. However, in Bantul the bureaus combine local indicators for poverty and village food vulnerability with nationally generated indicators to administer the village food security program (*Desa Mandiri Pangan*) to adjust the implementation of that program to meet local needs.

There are also issues about data reliability. Health data, such as the rates of pregnant women with anemia, sent to the health bureau from the *puskesmas* must be verified as it is often inaccurate. Incentive based programs, such as those used in Bantul, have a general weakness in that they often create perverse incentives that defeat the purpose for which they were implemented. For example, if payments are dependent upon the attainment of certain results there are incentives for administrators to create the results that are required.¹ Even without a specific incentive scheme, if a district or sub-district feels that poor results might reflect badly on their administration's performance, there may be incentives to manipulate data. In some bureaus the practice of "copy-paste" from the previous year's data is still said to be an issue. In addition, there are delays in transferring information between bureaus and from the sub-district to the district level, thus the data could be accurate, but not up-to-date.

Lastly, evidence based processes depend on a rigorous evaluation of current policies and procedures to evaluate effectiveness and identify improvements. In neither district an adequate evaluation of health and nutritional programs occurs. The little evaluation that does occur is unsystematic and is not connected to any long-term planning process.

Recommendations

- 1. Improve coordination** with the national government and develop synergies amongst national, provincial and district programs to reduce overlaps, improve coordination and result in improved health outcomes. As much as possible national policy making should be developed in such a way as to be inclusive of the aspirations of district governments and to support long-term planning. This may include a review of the implementation of nationally led nutrition and food resilience programs to ensure they continue to be relevant at the district level and increase flexibility in budget allocations. Currently low accountability of district governments' performance in achieving the SPMs needs to be addressed.
- 2. Create integrated data centres** to gather valid, accurate and real time data and consolidate nutrition/food security data from all local bureaus within districts and between the districts and national actors. Data should be both quantitative, and qualitative, that is, engaging with the experiences and expertise of those who provide and use relevant services and programs. To enable such a system to work, national, provincial, district and sub-district bodies need to work together to develop a set of common indicators that create an accurate picture of local needs and facilitate data-gathering. Rigorous data evaluation mechanisms should be developed for all programs to ensure that data is accurate, as well as to create new data to feed into a program of continuous quality improvement to strengthen governance programs.
- 3. Commitment at the national and district level to increasing the development of EBDM in public health.** Leadership will be required at all levels of governance to change cultures resistant to integrating research into decision-making processes. This may require the development of incentives and/or accountabilities to encourage or require EBDM. Most of all it will require a paradigm shift by all governance actors to move from short and medium-term planning to long-term planning and implementation of programs in this area. Additionally, researchers must take responsibility for making research results more accessible to policymakers.
- 4. District governments should develop measures to improve coordination between bureaus to address important cross sectoral problems.** In Bantul, the use of law to require coordination to address problems that cross sectoral boundaries is reported to have been helpful, although incentive schemes can have inherent weaknesses. Bantul also holds regular coordination meetings between bureaus at policy and operational levels and with sub-district actors and service providers. Another approach, suggested in Gunungkidul, is that an existing coordination body, such as the Food Resilience Board (*Dewan Ketahanan Pangan*), be given greater authority to require coordination and prioritise programs.
- 5. Encourage and facilitate increased participation by all stakeholders in planning processes** at the national and district level. This will foster community engagement with nutrition and public health issues, which is particularly important given the high dependence upon NGOs, communities and volunteers to deliver services. It will also facilitate the effective and efficient delivery of such services by increasing decision-makers' awareness of local issues and increasing community awareness of the broader context within

which interventions are developed, funded, implemented and monitored and how their activities contribute to this broader process.

6. **Continue to develop programs to educate the public about the importance of local food** as a source of nutrition, provide education on how to process local foods to enhance their nutritional value, and develop campaigns to promote pride in local food diversity.

Notes

- ¹ There is little concern about this possibility in Bantul as they note that it is quite difficult to obscure information connected to mortality and severe morbidity.

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