Social Movements and Health

DECENTRALIZATION OF HEALTH SERVICES: THE KERALA PEOPLE'S CAMPAIGN

Joy Elamon, Richard W. Franke, and B. Ekbal

The 1996–2001 Kerala People's Campaign for Decentralized Planning has provided much new information about the possibilities and potential of decentralizing public health and health care services. Analysis of investment patterns of the various government levels involved in the campaign, supplemented with case study materials, allows for an evaluation of the decentralization project against its own stated goals. These included (1) creating a functional division among government levels appropriate to the health tasks each level can best perform; (2) generating projects that reflect the felt needs of the people, as voiced through local participatory assemblies; (3) maintaining or increasing levels of equality in health, especially with regard to income, caste, and gender; (4) stimulating communities to mobilize voluntary resources to supplement devolved public funds; (5) stimulating communities to create innovative programs that could become models for others; and (6) making the health services function more effectively overall. The analysis supports the conclusion that the campaign achieved each of the goals to a large degree. Shortcomings arose from the inexperience of many local communities in drafting effective projects as well as problems deriving from the fact that some sections of the health bureaucracy could not be decentralized. Lessons of the campaign are already being applied to new programs in Kerala.

Decentralization is a major feature of health systems around the world today. Proponents argue that decentralization promises more direct accountability of public health and health care institutions, more efficient management of resources, better linkages between information and planning, easier interagency coordination (1, p. 115; 2, p. 14), and the ability to respond more effectively to "the variety of different needs and capacities of different regions and localities" (3, p. 55). As yet, however, the potential of decentralization has proved difficult to measure since

International Journal of Health Services, Volume 34, Number 4, Pages 681-708, 2004

© 2004, Baywood Publishing Co., Inc.

"data to support . . . claims about promised benefits are still sparse" (4, p. 1). Concerning the quality of health services and decentralization, "it is extremely difficult to determine just what that impact is" (5, p. 95). Among the reasons experts cite for the gap between promise and fulfillment are poor planning for decentralization, conflicts between central health ministries and lower-level decentralized units, problems of staff assignment and salaries (6), rent-seeking (the decentralized units, lack of public engagement (2, pp. 14–15), vagueness about the meaning of decentralization (4, p. 1), and a variety of other factors. And, despite the allure of decentralization for nearly two decades now, it appears that, surprisingly, "There is little documentation of . . . decentralization of health services" (1, p. 116).

To overcome the vagueness about the meaning of decentralization, Dennis Rondinelli, John R. Nellis, and G. Shabbir Cheema, at the University of California, Berkeley, Institute of International Studies, developed the conceptual framework of three types of decentralization: deconcentration, delegation, and devolution (7; 8, p. 27). *Deconcentration* occurs when a central government ministry transfers some resources and/or decision-making power to a regional or local office. *Delegation* refers to the transfer of government authority over a particular set of tasks to other institutions such as state-owned enterprises. When the task is out-sourced to a private sector enterprise it is called privatization, which in this schema is a form of delegation. The most substantial form of decentralization is *devolution*, in which authority is transferred to lower levels of government, granting them some or all of the powers to plan, make decisions, raise revenues, employ staff, and monitor activities. This allows the lower levels to "interact reciprocally with other units of government" (7, p. 20).

Any of these three forms of decentralization might be chosen to attempt to solve particular problems. Chile, for example, deconcentrated certain public health services to 27 autonomous health service areas, while devolving health care services to 325 municipalities. Kenya devolved cost-sharing authority to district health management boards in the 1980s (9, p. 32). Indonesia experimented with deconcentrated data-gathering and related planning of some health programs to provincial health offices in three provinces in the 1980s, and expanded the project to 11 provinces in the 1990s (3, p. 56; 10, p. 166). In the early 1990s, the Philippines radically devolved health services to district and local levels (9; 11, p. 138). Within India, several state-level experiments in decentralization have been carried out, with the most successful being an example of deconcentration in West Bengal that has been underway since the late 1970s (12, pp. 15–16). A wide variety of combinations of the three decentralization forms can be seen around the world.

Another key aspect of decentralization is the unit or level to which the decentralization goes. To fulfill the promise of decentralization, should one decentralize to the district, the subdistrict, the municipality, the village, or the neighborhood? Which kinds of health services and institutions should be controlled at which levels? Should some remain centralized? These questions remain unanswered, in part because of the lack of systematic data, and in part because the answers may vary from society to society owing to variations in local demographic, economic, cultural, and political circumstances and to the types of health problems most in need of attention.

The range of case materials has recently been extended by an unusual, perhaps unique, decentralization experiment in the southwest Indian state of Kerala. The Kerala People's Campaign for Decentralized Planning ran intensely from 1996 to 2001 and continues at a slower pace today (12). The Left Democratic Front ministry that initiated the campaign allotted 35 to 40 percent of the state development plan's budget to local government bodies to spend as they chose within certain broad parameters. Village assemblies listed problems, then elected task forces drew up projects that were prioritized by village and municipal elected council members. Democratically elected development block councils and district councils processed the local proposals and added projects to fill in gaps or reduce conflicts. Special allotments were set aside for projects aimed at former untouchable castes and for projects designed to benefit women. Innovative accounting procedures and high levels of transparency are widely believed to have helped limit rent-seeking and to have led to significant improvements in physical infrastructure throughout the state (12). In this article, we describe and analyze the health component of the Kerala People's Campaign, a series of local health projects and administrative reforms that constitute a case study of the decentralization of health services.

THE KERALA HEALTH MODEL

Kerala's achievements in health are well known to the international development community. With a per capita gross national product (GNP) in 2000 of \$566 (\$2,943 at purchasing power parity, or PPP; calculated from 13, p. 19), Kerala had an adult literacy rate of 91 percent, infant mortality of 16 per 1,000, birth rate of 18 per 1,000, and life expectancy of 68 for males and 74 for females (13, p. 158). The rest of India and the low-income countries generally had literacy rates around 50 to 60 percent, infant mortality above 65, birth rates running from 29 to 40, and life expectancy at about 60 to 65 years (14, pp. 232–233; 15, pp. 150–152).

Part of Kerala's success in achieving near developed-world levels of basic health indicators results from a rapid expansion of medical facilities during periods of mass political mobilization (16, pp. v–vii, 37–46; 17; 18). Another part derives from the development of public health and disease prevention programs by enlightened Maharajahs, starting in the princely state of Travancore in the late 19th century. After the formation of Kerala State in 1956, these public health programs were rapidly extended into Cochin and Malabar, the other areas that became Kerala. As a result, substantial reductions were achieved in cholera,

smallpox, plague, filariasis, malaria, and hookworm (19–21). With the creation of large numbers of trained doctors and nurses, extensive networks of hospitals, and a primary health center (PHC) in every village, Kerala had achieved the status of a health model (22).

THE KERALA HEALTH CRISIS

While foreign observers pondered the possible lessons of Kerala's health achievements (18, 23), health experts and practitioners within Kerala became disquieted over a number of disturbing trends. Although Kerala's people remained generally far healthier and continued to have better access to health services than most populations of the less-developed world, diseases such as malaria, once nearly conquered, began staging comebacks. Outbreaks of Japanese encephalitis occurred (24). HIV/AIDS appeared but was difficult to track owing to conservative sexual norms. Parasitic and infectious diseases remained serious problems in many areas, while new diseases following on the earlier successes in extending life began to strain the health care system—these include cancer, heart disease, hypertension, and arthritis (25). At 27 per 100,000, Kerala's suicide rate was three times the national Indian average (26).

Government health facilities began to deteriorate in quality. By the early 1990s, only 30 percent of even the poorest groups sought help from public sector hospitals, and PHCs in many communities were dilapidated and underutilized (25, 27). Frequent complaints were the lack of medicines, lab supplies, or other needed equipment. And, despite Kerala's otherwise remarkable achievements in public health, both safe drinking water and sanitary latrines remained inaccessible to significant sections of the population. A rapid growth of private hospitals appears to correlate with excessive use of sophisticated equipment such as CT and MRI scans, endoscopy units, and the like (25), while Kerala's cesarian rate of 12.8 per 100 births is second in India only to Goa's. Women giving birth in private hospitals in Kerala are 1.7 times more likely to have cesarians than are those giving birth in publicly financed hospitals (28, pp. 511–512).

THE PEOPLE'S CAMPAIGN

When the Left Democratic Front came to power in 1996 and launched the People's Campaign for Decentralized Planning, health activists saw an opportunity to intervene in a big way to put the Kerala health model back on track. Within the campaign, they pushed at all levels for substantial investments in health, and they encouraged innovative health projects wherever possible. The decentralization of health services in Kerala thus became part of a larger experiment in local democratic participation as a means to development.

Decentralization of Health Care in Kerala / 685

The Kerala People's Campaign for Decentralized Planning was launched in August 1996 with a public government commitment to devolve 35 to 40 percent of the plan or development budget to local communities. The campaign evolved through several stages. From August to December 1996, grama sabhas (village assemblies) were organized in every ward of Kerala's 990 grama panchayats (rural villages). Similar assemblies were held in urban neighborhoods. At each of these 14,149 assemblies an average of 159 persons attended, about 11 percent of the voting age population (12, p. 53). The assemblies broke into small subject group meetings, with health always one of the options. Following the grama sabha, a joint group from all the ward assemblies in a village organized to gather local data and draft a local *panchayat* development report (PDR). Every one of Kerala's 1,212 local communities produced and disseminated such a report, each with a chapter on health and chapters on 11 other areas, including animal husbandry, agriculture, education, industry, and women. The PDRs were the subject of the third stage of the campaign, in which a group of about 300 met at the all-village level and used the PDR to generate lists of project areas; these were then turned into project proposals by the task forces, elected out of the seminars and with expert help from volunteers among Kerala's retirees and government officers. Finally, the elected *panchayat* councils selected the priority list of projects. The entire process took 13 months in the first year, but as people gained experience, it became a 4-month process by the second and third years. Implementation and monitoring committees were set up to complete the process that had begun with the listing of needs in the first set of assemblies. Projects in health had to compete with projects for roads, schools, childcare centers, housing, and all other development tasks undertaken at the local levels. The 60 to 65 percent of the plan budget not devolved went largely into major infrastructure, electricity generation, and industrial development-that is, into projects deemed inappropriate for local assemblies or councils to undertake.

In the first year of the campaign, fiscal 1997–98, across Kerala there were 67,766 locally devised projects using Rs 7,490 million (7.49 billion) of devolved funds. Within certain broad limits imposed by the state planning board, communities could choose whatever projects they felt best suited their needs—but, for example, local communities could not spend more than 30 percent of the state funds on infrastructure, a limit designed to discourage excessive road building. An extensive training program spanned all five years of the campaign, with lessons in simple cost-benefit analysis, rapid rural appraisal techniques, and other essential elements of participatory planning transmitted to hundreds of thousands of ordinary citizens in seminars, training camps, and workshops. It is within the context of this dramatic campaign that we sought to analyze the effects on health planning and the functioning of health services. The Kerala experience should provide rich materials to contribute to the international literature on health services decentralization.

METHODS OF RESEARCH AND MAJOR FINDINGS

To assess what the campaign achieved and failed to achieve we used six of its own major stated goals. For each goal we attempted to gather and analyze the most appropriate data within the constraints of time and other resources. The six assessments, based on these goals, are:

- 1. Did the delivery of health services become functionally divided among levels, and were the divisions appropriate for the resources available and the capacities of each level?
- 2. Did the health projects at each administrative level address the expressed needs of the local populations?
- 3. Did decentralization increase or at least maintain the level of equality in public health facilities and health care access?
- 4. Were local communities inspired to mobilize local resources in addition to the decentralized funds, thereby making the spending devolved from higher levels more productive and effective?
- 5. Did local communities use the new powers to innovate?
- 6. Did the health services start to function more effectively overall?

1. Did the delivery of health services become functionally divided among levels, and were the divisions appropriate for the resources available and the capacities of each level?

To evaluate this goal we collected the reports at the State Planning Board that described all the projects and selected out the health projects using the category codes adopted in the campaign. For the first three years the data include: 1997–98, 10,472 health projects; 1998–99, 14,276 health projects; and 1999–2000, 22,584 health projects. Data for 2000–2001 are for 6 of 14 districts only, and data for 2001–2002 are not available at present. To consider the question of functional divisions we grouped the projects into 12 categories, using simplified versions of the project title codes from the campaign:

- 1. Primary health center and hospital equipment and construction
- 2. Drainage and waste (including sewage) disposal
- 3. Drinking water
- 4. Latrine construction
- 5. Nutrition

- 6. Mosquito and rodent eradication
- 7. Awareness and immunization
- 8. Rabies control
- 9. Public burial ground
- 10. Slaughterhouse
- 11. Ayurveda and homeopathy
- 12. Other public health

The investment patterns of these 12 categories can be cross-tabulated in terms of two major dimensions:

- The local government levels: village, block, district, municipality, or urban corporation
- The plan type: General Plan, Special Component Plan, Tribal Subplan, and Women Component Plan (all discussed later in the article)

Below the state level Kerala is divided into 14 districts. Within each district are some of the 54 municipalities, or urban areas. At the time of the campaign, there were also three *urban corporations*, the largest three cities of Thiruvananthapuram (the capital), Cochin-Ernakulam, and Kozhikode (Calicut). In 2000 the municipalities of Thrissur and Kollam (Quilon) were upgraded to corporation status. The rural areas of each district are made up of 991 villages, the grama (village) panchayats (for council or governing body), and 152 blocks. Blocks, or "development blocks," are clusters of 2 to 13 villages set up by the Indian central government as administrative units to manage national development projects such as food for work, small business support, and the like. Following the decentralization patterns implied in the 73rd and 74th amendments to the Indian national constitution in 1992, Kerala established democratically elected councils at all levels in all bodies. Thus, the state assembly, or Niyama Sabha, and the chief minister and cabinet are at the top of a hierarchy of elected councils: district councils, block councils, village councils, municipal councils, and urban corporation councils. According to the amendments, 29 government functions were to be devolved to the levels below the state assembly. The People's Campaign was in part an effort to carry out that devolution.

Of course, funds could be devolved but old patterns of adherence to line department planning could have been maintained. To ascertain whether the health component of the campaign resulted in any functional division of tasks, we compared the spending patterns on particular health areas at the various sub-state levels as percentages of the total expenditure on all health projects. The data for selected project types for the plan years 1997–98, 1998–99, and 1999–2000 are presented in Table 1. The columns do not add to 100 percent, because we have chosen only the items of interest in order to keep the table as simple as possible. In this table we have also taken the entire plan fund as the basis for the totals, ignoring the division of funds into general plan, special component plan for the former untouchable castes, special subplan for tribal areas, and the women component plan—these are discussed later.

Table 1 seems to verify the claim of campaign activists that their decentralization process was bringing about a functional division of responsibilities in health planning. We see from the table that expenditures for PHCs and hospitals were undertaken mostly from the block level. The table also shows that inordinate amounts of spending on hospitals and local care centers did not occur. This had been a fear of campaign critics. Instead, the rural villages (*grama panchayats*) put their health resources into drinking water projects that ran ahead of PHC and hospital spending by 51.7 to 6.3 percent in 1997–98, 34.1 to 6.6 percent in

	Keral	Selected a People	health i 's Camp	Selected health investment patterns of different tiers of government below the state level, Kerala People's Campaign, 1997–98, 1998–99, 1999–2000, percentage of total health expenditures	it patter 97–98,	ns of dif 1998–99	ferent tie, 1999–2	rs of go 000, pei	vernment	t below of total	the state health ey	level, spenditur	res		
			1997–98	~				1998–99				15	1999–2000	0	
Investment area	1 Gram.	2 Block	3 Dist.	123456789101112Gram. Block Dist. Munic. Corp. Gram. Corp. Gram. Block	5 Corp.	6 Gram.	7 Block	8 Dist.	9 Munic.	10 Corp.	11 Gram.	12 Block	13 Dist.	13 14 Dist. Munic.	15 Corp.
PHC and hospital	6.3	26.5	3.6	3.6 12.1	4.0	6.6	6.6 25.6	5.7	5.7 7.3	11.9	5.5	17.6	11.4	10.7	5.9
Drainage-waste	2.1	1.9	1.8	17.4 33.6	33.6	2.7	2.5	1.6	2.5 1.6 26.7	27.4	1.7	1.7 1.9 1.7	1.7	15.5	18.2
Drinking water	51.7	44.5	75.0	27.9	29.2	34.1		54.0 74.9	21.2	15.8	26.1	68.9	78.7	31.6	32.5
Latrines	27.8	15.2	6.0	18.0	8.5	29.7	6.1	1.8	11.3	9.8	22.3	5.3	1.3	9.7	2.7
Nutrition	0.5	0.5	0.0	0.5	0.0	16.5	0.2	0.9	0.9 12.6	13.9 18.8	18.8	0.5	0.0	13.2	16.8
Mosquito eradication	1.1	1.0	0.7	3.3	10.0	0.8	0.4	0.0	2.8	3.8	0.3	0.6	0.0	1.8	0.0
<i>Note:</i> Columns do not add to 100% because only selected items of interest have been presented in order to keep the table as simple as possible. Gram. = <i>grama</i> or rural <i>panchayat</i> or village; Dist. = district; Munic. = municipality; Corp. = urban corporation.	not add tc llage; Dis	o 100% be t. = distric	scause on st; Munic	ly selected	l items of ipality; C	interest h Jorp. = url	ave been j ban corpoi	presented ration.	l in order t	o keep th	e table as	simple as	possible.	Gram. =	grama or

1

Table 1

688 / Elamon, Franke, and Ekbal

1998–99, and 26.1 to 5.5 percent in 1999–2000. By contrast, the block-level ratio of drinking water to PHC and hospitals was around 2 to 1 in all three years. A similar trend in latrine construction is evident in Table 1. We also see that drainage and waste removal took big bites out of the municipality and especially the urban corporation budgets but almost nothing from the *grama panchayats*. Piped drinking water is fairly available in the urban areas but is a big problem in many rural villages. Drainage and waste removal are big problems in the cities, but smaller problems in rural areas where composting and recycling are easier and where Kerala's dispersed rural settlement pattern lessens the problem of garbage pile-up.

One area of consistent emphasis was the district-level investment in drinking water, which runs about 75 percent of all the district-level funding across the three years (columns 3, 8, and 13). According to the plan structure, blocks and then districts were to evaluate the village plans and seek to invest the higher-level funds in areas that would plug in holes or reinforce existing projects. With drinking water projects the villages emphasized wells, rainwater harvesting technology, and small water cooperatives of 10 to 30 households sharing a tank and short pipe connections. Despite the short pipes, these projects were defined as "nonpiped water." The districts, by contrast, invested their larger funds in projects to extend existing pipelines and install public taps. These projects were reported as "piped drinking water." For 1997-98 the grama panchayats invested 20.4 percent in nonpiped and 31.3 percent in piped water projects, but in the same year the districts spent 63 percent on piped versus 12 percent on nonpiped and the corporations 21.2 percent on piped versus 8 percent on nonpiped (these figures are not shown in Table 1). The patterns held up over all three years, except for a trend in all the levels toward greater investment in nonpiped projects, suggesting that the projects were reaching out to more dispersed and needy segments of the population.

The pattern for village spending on nutrition programs shows a sudden upsurge in the second year of the campaign, from almost zero to 16.5 to 18.8 percent in the second and third years. Municipalities experienced a similar dramatic rise, while blocks and corporations avoided such spending. This pattern resulted from concern at the state planning board that communities were avoiding nutrition, thinking that the problem had been solved through older existing projects. Kerala is well known for its network of fair-price food shops and its fairly extensive school lunch program (23, pp. 145-146) and for a low incidence of malnutrition among Indian states (29; 30, p. 370). Even so, state-level planners feared that undernutrition could be contributing to morbidity levels considered higher than appropriate for the state's resources and history (31, pp. 60-73; 32). Thus, in a partial relapse from devolution to delegation, from 1998 onward the state government issued guidelines to the local councils to take up the nutrition programs that had previously been conducted by the state by including them in the local council plans. Most of these nutrition programs were run through Kerala's extensive network of anganawadis or childcare centers, found in nearly every

village, or through school lunches. The local councils claimed that the statelevel agencies overestimated the numbers of children attending the *anganawadis*, thereby resulting in demands for higher investment than the local councils thought necessary. This created some friction between different levels of the decentralization campaign.

The mosquito eradication projects are an example of the many areas in which only minor investments were made. As can be seen in Table 1, however, the big cities used 10 percent of their devolved funding in the first year for this purpose. One of the biggest projects took place in Koyilandy municipality, which we discuss later in the article.

Table 1 seems to indicate, then, that a functional division of health spending did occur as a result of the devolution. But were the spending patterns a reflection of appropriate levels? Was the devolution creating a more efficient targeting of investment by using the best level for each type of spending? The local village councils had better resource capacities for installing latrines and putting in nonpiped water systems than they did for investing in local area hospital equipment. Similarly, district councils could tap resources better for the larger, piped water systems. The block councils filled the gap in spending for the first layer of hospitals—the *taluk* or subdistrict hospitals to which patients are referred from the village PHCs. Significant improvements in the *taluk* hospitals has been a major achievement of the campaign, as we shall see later. And, as noted above, the municipalities and urban corporations devoted relatively more funds to the drainage and waste removal that are more particularly urban problems. With the exception of the state planning board's interference in mandating the nutrition programs, then, Kerala's devolution appears to have resulted in a more effective functional division of responsibilities and a set of desirable spending priorities in health. But were these the priorities democratically chosen by the people, or were they outcomes of manipulation by higher-level planners under the guise of decentralization?

2. Did the health projects at each administrative level address the expressed needs of the local populations?

The grama sabhas (assemblies) and the further stages in the campaign were intended to identify the felt needs of each local community. We conducted a detailed study of the 84 rural communities in Thiruvananthapuram district, which surrounds the capital city. Although this district might seem to be more advanced in infrastructure and political mobilization owing to its proximity to the capital, as events turned out, it lagged behind most of the northern districts of Kerala, where left activism has a longer and more intense history. In terms of the People's Campaign, in the first year for which our local data were collected, it had a participation profile close to the average (12, pp. 53, 71–72). The data include eyewitness accounts of 24 grama sabhas and four development seminars, a

content analysis of the health chapters of the 84 PDRs, and a focus group study as an independent check on whether the *grama sabhas* seemed to be capturing people's health concerns. Ninety-five men and 65 women participated in 24 focus groups, the members chosen from a wide range of ages, occupations, and locations across the district (33, p. 14).

The People's Campaign was launched with great fanfare in August 1996. Community meetings, school development quizzes, musical performances, street theater, and coconut oil lamp processions encouraged people to attend the village assemblies, where they could list their problems and begin the process of bottom-up development planning. In the first round of assemblies, nearly 3 million persons participated, 11 percent of the adult voting population (12, pp. 47, 53). Campaign organizers hoped that people would identify their local needs through discussions in these assemblies, so speeches were kept to a minimum and small group discussions were emphasized. Local schools facilitated the process, since brief plenary meetings could be held in the schoolyards while the smaller subjectbased groups could settle into classroom spaces. The health group topics included drinking water, nutrition, and sanitation as well as diseases, doctors, hospitals, the PHC, and any other health-related topics the participants wanted to raise.

The discussions were organized with a trained resource person and a semistructured questionnaire to guide the discussion slightly. The objectives of the discussion included collecting certain basic village health information directly from the participants, identifying major health problems, and discussing causes and solutions to the problems on the basis of participants' experiences. Some examples of questions used by facilitators to get the discussions going:

- What are the public health care institutions in our locality? Where are they located? How many private hospitals and clinics are there? Does anyone in the village have to travel more than two kilometers to get primary medical assistance? Are there enough employees, essential drugs, beds, and other facilities in the PHC? Are inpatient facilities available nearby? Are they adequate for the need?
- What do you think of the quality of the services at the public health care institutions in the village? Are employees regularly at work at the sub-centers? Do they visit the households? Is the doctor regularly available at the PHC?
- What is the approximate percentage of households without latrines in our locality? What are the reasons many households never constructed a latrine? Are there any areas with stagnant sewage or water?
- Which areas have chronic shortages of drinking water? How far do the people have to go to fetch water in such areas? Any suggestions for a solution?
- Do you think there is malnutrition among children and pregnant women in our area?
- What are the main communicable diseases regularly seen in our area? Are children and mothers being immunized properly and regularly?

These were followed by questions on the status of health education, sources of pollution and its impact, and various other locale-specific issues.

As noted earlier, the *grama sabhas* were followed up by local data-collection campaigns, a development seminar, the creation of task forces, the writing up of project proposals, the prioritizing of the projects by the elected village council, and the submission of projects to the elected block-level councils and to expert committees for minor revisions and technical advice. Through this long process from *grama sabha* to project approval, did the needs expressed at the *grama sabhas* get through or get lost? To answer this question we attended the health discussion groups at 24 *grama sabhas* in Thiruvananthapuram to see what concerns people raised. We then analyzed the health chapters of the 84 PDRs to find the degree of fit with the issues raised in the *grama sabhas*. We supplemented these data with an independent focus group study of 24 groups drawn from a range of people in the rural areas of the district.

The chapter on health in the PDRs was supposed to summarize the history of public health and health care in the village. From there the discussion moved to the contemporary health problems. Table 2 lists these problems and their magnitude of seriousness as reported in the 84 PDRs in Thiruvananthapuram district.

Table 2

		1	<i>anchayats</i> `total)	
Problem	Very serious	Serious	Not serious	Not a problem
PHC and hospital infrastructure	32 (38)	47 (56)	5 (6)	
a. Lack of medicines	27 (32)	39 (46)	18 (22)	
b. Absence of health care personnel	24 (29)	45 (53)	15 (18)	
c. Lack of hospital beds	28 (33)	43 (51)	9 (11)	4 (5)
Drainage and waste disposal	19 (23)	33 (39)	32 (38)	
Drinking water	40 (47)	20 (24)	24 (29)	
Latrines	14 (17)	27 (32)	27 (32)	16 (19)
Malnutrition	1 (1)	38 (45)	37 (44)	8 (10)
Mosquitoes	15 (18)	37 (44)	32 (38)	
Problems of the disabled	22 (26)	35 (42)	27 (32)	
Chronically ill and old aged	30 (35)	46 (55)	8 (10)	
Awareness and immunization	16 (19)	23 (28)	30 (35)	15 (18)

Designation of seriousness of factors contributing to health problems in *panchayat* development report (PDR) health chapters: Thiruvananthapuram district, 1997–98

Note: All row percentages total 100 and row numbers total 84, the number of *panchayats* in the district. A few *panchayats* only made the prioritization lists at the time of the development seminar.

Drinking water emerges as the most important issue to be tackled. Forty of the 84 *grama panchayats* identified it as a very serious problem and 20 more as serious. Almost all the *grama panchayats* in the coastal areas of Thiruvananthapuram considered this the most important health problem. Waterborne diseases are common in the coastal areas, and the people identified safe drinking water as the most important need.

The second most important factor is the health care infrastructure. Nonavailability of drugs, absence of employees from their posts at the health centers, and inadequate beds are the major issues in this category. Another important issue emerging from the development reports is the need for improved sanitation facilities, mainly household latrines. A typical statement at both the *grama sabha* discussions and the focus groups was, "Earlier, the absence of latrines was a major problem and it was reflected in the high incidence of diarrhea. Now that a good number of houses have latrines, it is feasible to strive for latrines in all the households with the support from the *grama panchayats*. Those who do not have latrines now are the 'really poor,' and it is among them that the waterborne diseases are more prevalent."

In Table 3 we list projects drawn up for 1997–98 by the 84 grama panchayats in Thiruvananthapuram district (34). The largest number of projects and largest share of plan assistance and of total outlay in health are for drinking water projects: 42.6 percent of the grant-in-aid. The second biggest investment came in latrine construction, at 36.6 percent of the grant-in-aid. Both types of projects have large beneficiary co-investment, leading to large total outlays. PHC and hospital construction come in third, with 8.1 percent of the grant-in-aid. The priorities given in the PDRs had been drinking water, PHC and hospitals, followed by latrines. The project investment ordering is drinking water, latrines, then PHC and hospitals—a different order, but the first three items are the same. The prioritization of projects basically followed the priorities among the problems identified by the people.

As shown in Table 2, the PHC category has three subsections: medicines, staff responsibility, and bed adequacy. These items were clearly of great concern to people, but the decentralization program had not yet evolved mechanisms or provided resources for local communities to directly attack these problems. This was a major weakness yet to be overcome.

Returning to Table 3, we see that the number and size of projects for mosquito eradication are smaller than the PDRs would suggest. We do not have an explanation for this discrepancy. Similarly, in the category of awareness and immunization, far fewer projects than predicted ended up being implemented. The reason for the apparent discrepancy here is that school and other health education programs, particularly immunization programs, are part of the normal functioning of the PHCs and are funded by the central Indian government and the Kerala state government outside the people's plan funds. The concerns

Distribution of I Thir	olan grant- uvanantha	in-aid and e puram distri	of plan grant-in-aid and expected total outlay for health projects, prepared by the grama pa Thiruvananthapuram district in the first financial year of the People's Campaign, $1997-98^a$	tlay for health nancial year or	t projects, prepa f the People's C	red by the <i>gran</i> ampaign, 1997	Distribution of plan grant-in-aid and expected total outlay for health projects, prepared by the <i>grama panchayats</i> in Thiruvananthapuram district in the first financial year of the People's Campaign, 1997–98 ^a	
1	2	3	4	5	9	7	8	6
		Percent			Resources to	Percent of total health	Total	Percent of total
	No. of	No. of of health	Grant-in-aid,		Percent of be mobilized,	projects	expected	expected
Project type	projects	projects	rupees	grant-in-aid	rupees	mobilization	outlay, rupees	outlay ^b
PHC and hospital								
construction and equipment	36	6.7	4,583,916	8.1	3,031,149	8.7	7,615,065	39.80
Drainage and waste disposal	22	4.1	1,806,922	3.2	1,069,967	3.1	2,876,889	37.19
Drinking water	242	44.7	23,988,083	42.6	13,339,881	38.2	37,327,964	35.74
Latrine construction	134	24.8	20,609,039	36.6	14,429,249	41.3	35,038,288	41.18
Nutrition	ŝ	0.6	73,100	0.1	60,000	0.2	133,100	45.08
Mosquito eradication	6	1.7	113,550	0.2	115,000	0.3	228,550	50.32
Awareness and immunization	30	5.5	894,265	1.6	536,785	1.5	1,431,050	37.51

Table 3

Rabies control	28	5.2	840,600	1.5	1,030,965	3.0	1,871,565	55.09
Burial ground	2	0.4	470,000	0.8	75,000	0.2	545,000	13.76
Slaughterhouse	2	0.4	104,300	0.2	647,383	1.9	751,683	86.12
Ayurveda and homeopathy	21	3.9	2,616,744	4.6	521,448	1.5	3, 138, 192	16.62
Other public health	12	2.2	203,200	0.4	65,133	0.2	268,333	24.27
						100.1		
Health project totals	541	13.1^{c}	56,303,719	14.2	34,921,960	8.0^d	91,225,679	38.28
All categories of projects ^{e}	4,125		397,000,000		436, 300, 000		833,300,000	52.36
Source: Kerala State Planning	Planning Board (34).							

^{*a*}The Kerala financial year runs from April 1 to March 31. ^{*b*}Column 6 divided by column 8 multiplied by 100.

^cHealth projects as a percentage of all grame parchayar projects in the people's plan for 1997–98. ^dHealth project totals as a percentage of all grame parchayar projects, computed by dividing 34,921,960 (column 6) by 436,300,000 and multiplying by 100. ^eAll campaign projects in the 84 grame parchayars of Thiruvananthapuram district for 1997–98; does not include municipalities, the capital city, the development blocks, or the district-level projects.

Decentralization of Health Care in Kerala / 695

expressed in the PDRs reflect negative perceptions of the quality of these centrally and state-sponsored services.

Some projects that came through the process were not originally brought up as major issues in the *grama sabhas:* 21 ayurveda and homeopathy projects, 28 projects for rabies eradication, and 2 each for burial ground and slaughterhouse construction projects. Surveys indicate that 11 percent of Kerala's people choose ayurvedic treatment and 7 percent choose homeopathy (32, p. 31). Both alternative systems tend to be used either because they are cheaper or because the patient has lost confidence in allopathic (Western) medical approaches. Asthma, arthritis, cancer, and general undiagnosed pain are the most common causes for choosing ayurveda or homeopathy. The focus group discussions revealed that ayurvedic and homeopathic practitioners pushed for projects in their fields by joining the task forces. The focus groups also turned up evidence that the rabies control projects had emerged from the animal husbandry discussions but were later categorized as public health projects.

3. Did decentralization increase or at least maintain the level of equality in public health facilities and health care access?

The comparative literature on decentralization does not consistently emphasize equality, but Kerala's planners and activists made this an essential component of the entire range of projects in the People's Campaign. In addition to the breakdown by government levels, the devolved funds of the campaign were divided into four socially relevant categories: poverty, caste, tribe, and gender. Because poverty in Kerala—as in India generally—is historically connected to caste oppression, the former untouchable castes and the tribal peoples received special allocations. The *General Plan* was for development projects of any kind. The *Special Component Plan* was for use only in neighborhoods or households from "scheduled castes"—former untouchables. With 11 percent of Kerala's population in scheduled castes, the Special Component Plan was allocated 22 percent of the devolved funds. The *Tribal Subplan* was only for *adivasis*, aborigines, or tribal peoples. With 1 percent of Kerala's people, the Tribal Subplan was allocated 4 percent of the funds. (All plan percentages varied slightly across the five years of the campaign.)

How did these allocations play out in health? According to surveys by the Kerala People's Science Movement, between 1987 and 1996—just before the People's Campaign—the percentage of Kerala households without sanitary latrines had decreased from 66 to 47 percent (32, pp. 9–10). In Kerala as a whole, in the first four years of the campaign, 497,185 sanitary latrines were constructed (35, p. 197; 36). This represents 8.3 percent of all households in the state as of 2000 and 17.8 percent of those that had remained without sanitary latrines in 1996, lowering the rate without sanitary latrines to about 39 percent. The rate of improvement in both periods was about 2 percent of total households

per year. The actual achievement during the People's Campaign may be greater, however; many new houses were constructed, usually with proper latrines and bathing rooms, and many of these might not have been counted in the village reports on latrine construction—which reflected only the building of outhouses. Kerala's overall achievements in latrine installation may help to explain the state's average annual episodes of diarrhea per child: 1.1 versus an all-India average of 2.5 (37, p. 28).

In terms of caste equality, 19 percent of latrines were built in scheduled caste households and 2 percent in scheduled tribe households (computed from 35, p. 197). These percentages are twice the proportion of those groups in the total population. Similar patterns hold for drinking water projects. The data for Thiruvananthapuram district, featured earlier in the article, are consistent with those for the state as a whole. Overall, subsidies were greater for households below locally established poverty lines than for those above. Local assemblies in public meetings rather than government bureaucrats in private offices made the BPL (Below Poverty Line) determinations. This reduced corruption and improved the efficiency of targeting. Even so, approximately 2.2 million of Kerala's 5.9 million households still resort to unprotected latrines or to open air defecation.

Ten percent of General Plan funds were to be allocated for a Women Component *Plan* (WCP), projects exclusively or primarily benefiting women. The WCP proved a less consistent mechanism for generating greater equality than the income, caste, and tribal based allocations. In the first year of the campaign, local councils experienced difficulty in coming up with projects to benefit women. As a result, most simply counted projects involving local vegetable production near the kitchens or loans for sewing machines as WCP. Later, there was a tendency to put the mandated nutrition programs into the WCP. Despite confusion and some apparent resistance, WCP projects began to emerge that brought women into formerly all-male jobs such as masonry or pedicab driving, offered psychological and legal assistance against battering (a health issue to many medical professionals), and raised women's public participation outside the house. In the area of health, at least two important developments took place. First, more than 125 communities installed new latrines and bathing facilities for women in public markets and bus stations—a major improvement in women's access to public life as well as an important health measure. Second, a movement emerged to write "women's status studies." This began as part of a health awareness campaign in the remote northern Kerala village of Chempilode, where women activists inspired by the People's Campaign trained local women to carry out a survey on women's health needs and attitudes. To the surprise of the survey organizers, the female respondents spoke openly about a range of problems, including sexual and family matters the researchers had long thought would be taboo (12, pp. 193–194). The Chempilode experiment led to a statewide campaign in which more than 200 villages and urban communities carried out such surveys. The research led not only to local data banks-for which the information has yet to

be consolidated statewide—but also to women becoming more assertive and active in local assemblies and political meetings. The full effects of the women's status studies campaign have yet to be ascertained, but it is certain that women's special health needs are more publicly discussed than ever before in Kerala.

4. Were local communities inspired to mobilize local resources in addition to the decentralized funds, thereby making the spending devolved from higher levels more productive and effective?

The data in Table 3 for the investment patterns include local communities' self-reports of the extent of the matching resources they expected to mobilize. These are likely overestimates, but they do provide some insight into the energy and community spirit instilled by the campaign.

The campaign mode of decentralized planning resulted in a remarkable outpouring of volunteerism in many localities. For Kerala as a whole in the first year of the campaign, village councils attempted to add 6 percent to the state-devolved funds from their own local accounts. Voluntary labor generated an additional 4 percent, so 10 percent was added on top of the devolved resources (12, pp. 115–116). Much of the voluntary labor went into cleaning drainage canals and upgrading sewage and waste-removal systems. Certain projects involving individual beneficiaries included cost sharing, often in the form of household labor for house construction, drinking water, latrines, or cattle or goat stalls. As Table 3 shows, for Thiruvananthapuram district in the first year of the campaign, total local resources to be mobilized (column 6) amounted to 52.36 percent (column 9) of the total expected outlay. This figure includes funds from other central government and state government projects, usually administered through the district or block *panchayats*. The amounts of village resources and voluntary labor in Thiruvananthapuram district ran at about the state average of 10 percent.

The latrine construction campaign illustrates how the mobilization of resources and the cost sharing made the decentralization more effective than a bureaucratically administered project. Latrine building focused on the WHO's recommended two-pit model that has proven reliable and long lasting. Several meters from the house, a small shack is constructed on top of cement cylinders, each with a door to one side. After about two years of use, one cylinder is filled and the toilet top is shifted to the other cylinder. The filled pit is allowed to stand for several months, after which it can be emptied and the contents used for compost. The latrine thus always has one pit available.

Construction of a two-pit latrine cost about Rs 4,000 during 1997–98. Of this, Rs 2,000 came from the devolved funds and Rs 2,000 came in contributions from each beneficiary, mostly in labor for hauling the materials and in construction not demanding skilled workers. The 41.18 percent of resource add-ons in Table 3 (column 9) represents this beneficiary contribution. In

Thiruvananthapuram district over the first three years of the campaign (the time period for which data are available), 35,162 sanitary latrines were built.

A second kind of local resource mobilization was voluntary work on public health or health care facilities. Nedumangad Taluk hospital serves a suburban area of the capital city of Thiruvananthapuram. Its catchment area extends into the nearby hills, populated by very-low-income and impoverished tribal households. The taluk, or subdistrict, hospitals are Kerala's second line of health care facilities after the local PHCs. They act as referral hospitals for the district-level hospitals and offer the most comprehensive care for serious injuries and illness. Before 1996 the Nedumangad hospital had been in decline, with a lack of adequate drinking water or latrine facilities and with outmoded and often nonfunctional medical equipment. The hospital's eight doctors attempted to treat 1,500 patients daily in a dilapidated outpatient room with a floor in need of major repairs. Catching the spirit of the campaign, local volunteers worked with the medical professionals to renovate the outpatient rooms, fix the drainage, sewage, and drinking water connections, improve the electrical wiring, and install new tables, chairs, beds, trolleys, sheets, and mattresses purchased with devolved funds. In connection with this work, the municipality set up a fair-price store where medical products could be purchased at 10 to 40 percent below open market prices. As the hospital's basic infrastructure improved, it made more sense to invest in additional equipment. The municipality set up a blood bank and mortuary, renovated the maternity ward, and installed a new X-ray unit, ECG machine, and clinical laboratory. It also provided the funds to finish construction on a 100-bed expansion ward. The main improvements at Nedumangad were accomplished in four months. Free or very inexpensive medical services for some of the poorest households in the southern part of Kerala were upgraded to a much higher quality.

5. Did local communities use the new powers to innovate?

Based on reports from and visits to several localities during the People's Campaign, we drew up a list of potential case studies of apparently innovative projects. Several of these were studied in detail. Of Kerala's 1,214 local councils, about 150 developed particularly innovative projects over the five years of the campaign. Of these, 15 were in public health and health care. Three stand out as exceptional: the Koyilandy biological mosquito control project, the Thrikkakkara cooperative hospital, and the Erattupettah "healthy village" project.

The Koyilandy Biological Mosquito Control Project. Koyilandy municipality, in Kozhikode (Calicut) district, is a lowland town with all the conditions for a resurgence of malaria, a disease almost under control in Kerala for many years but now making a gradual comeback. Koyilandy has a dense population, poorly drained ditches filled with stagnant water, open septic tanks, and puddles near houses in the monsoon seasons. For ten years the municipality had been

combatting mosquitoes primarily by spraying Bitex, an organo-phosphate compound. People in heavily sprayed areas complained of shortness of breath and other health problems, and the mosquito population had mutated to form resistant strains and was barely declining. A local husband-and-wife team of professional biologists, Drs. K. K. Anilkumar and Reena Anilkumar, proposed a multipronged biological control approach to the mosquito problem, which the local People's Campaign activists decided to promote as an experiment.

The project revolved around six elements. First, herbal and bacterial larvicides were sprinkled over drainage canals and other places holding stagnant water. The bacterial component, Bacillus thuringiensis, is considered safe for humans, as is the herbal concoction of several elements including neem (Azadirachta indica), a tree from which several bioactive elements are produced that repel, suppress appetite in, sterilize, and/or kill insects but are harmless to humans. Both mixes degrade rapidly after use, thus limiting the likelihood of the mosquitoes developing genetic resistance. Second, in another pass over the breeding areas, volunteers sprinkled a herbal repellent intended to prevent female mosquitoes from laying eggs. Third, traps were placed in the houses in three wards and in the government hospital. The traps contain an organic solution that attracts female mosquitoes to lay eggs in places where the pupae can be monitored and destroyed after hatching. Fourth, a program was initiated to cover the vent pipes of septic tanks with nets to prevent mosquitoes from entering and laying eggs. Fifth, a campaign encouraged homeowners to fix cracks in all tanks and walls, and, sixth, this was followed by a general awareness campaign, including local disease prevention classes.

While conducting the campaign, activists also organized monitoring and evaluation. Two control areas were chosen: one where no mosquito eradication actions were taken and one where traditional insecticides were employed. Over an eightmonth period of the most detailed monitoring, the investigators found that the six-pronged integrated biological approach was reducing mosquito breeding by more than 100,000 per month. In one month, more than a million mosquitoes were destroyed at one or more phases of their life cycle. This was estimated as an 85 percent reduction compared with the control areas (no interventions or use of toxic chemicals).

The Koyilandy experiment generated substantial interest among other coastal and lowland communities where mosquitoes are a problem. Kumarakom *panchayat*, lying along a coastal lagoon, organized 1,600 volunteers to clean algae along the lakeside. Volunteers also went house to house encouraging residents to install nets on latrine exhaust pipes and to clear their house compound areas of puddles. In 2002 the city of Ernakulam, Kerala's largest, contracted with the Anilkumar team to try to reduce the mosquito population. The Koyilandi People's Campaign project has generated mosquito control data that may have international implications, in view of recent discoveries in Mexico and other countries that combined community participation and a mix of carefully chosen, safe environmental practices offers promising alternatives to toxic chemical spraying in combating malaria (38; for a detailed account of the Koyilandy mosquito control project, see http://chss.montclair.edu/anthro/Koyilandi.htm).

The Thrikkakkara Cooperative Hospital. In a suburb of Ernakulam, campaign activists organized a strong movement for the construction of a cooperative hospital. The process of planning and building the hospital involved participation by more than 100 neighborhood groups, which sent proposals to the village assemblies that met twice yearly as part of the People's Campaign. The village council put up Rs 50,000 as a start-up subsidy, then 1,221 residents purchased memberships at Rs 250 (about \$6) each. Seeing such substantial community support, the village council offered a section of the compound next to the cultural center and library. Construction began in 1998. On June 13, 1999, the hospital opened with a daytime outpatient service, two general practitioners, an internist, and a female pediatrician. Three nurses, one lab technician, and a pharmacist constituted the medical support staff. Within the first week of operation, member patients and their families began demanding that the physicians offer night hours. The hospital staff rearranged their schedules to meet these needs. Two additional doctors were hired, and five beds were made available for patients needing hospital care.

Six months later, the hospital had 14 beds, a dermatologist, and an ear, nose, and throat doctor who came in two days a week. A female gynecologist in the area volunteered her services for certain emergencies. In the third year of the People's Campaign, the village council purchased an X-ray machine. By late June of 1999 the hospital was receiving 100 visits per day; by October 2001 the number had risen to 250. Membership in the hospital cooperative society had grown to 2,600. There were 21 doctors on staff, 8 of them full time. In 2002 plans were made to expand the 60-bed hospital to 200 beds by 2008. In November 2001 the hospital reached the break-even point in fees versus expenses. It is not intended to make a profit, but there are hopes for raising additional donations from the public to expand some services.

The Thrikkakkara Cooperative Hospital is managed by a nine-member committee democratically elected by the hospital members who have purchased at least one share. No matter how many shares a person owns, it is one shareholder, one vote. In 2002 the directors included one physician and former district medical officer, a local businessman, a lawyer, a social worker, an elected official of the block *panchayat*, two political activists, and one former village council member. Hospital fees are intentionally kept at about 40 percent below private sector charges, and cooperative members receive an additional 10 percent reduction. Physicians recruited to the staff are asked to accept below-market salaries for full-time work or to donate at least some of their part-time work at the hospital.

In addition to its in-house medical functions, Thrikkakkara Cooperative Hospital conducts substantial outreach programs to improve public health in the surrounding area. Projects include mobile check-up teams to poor neighborhoods,

seminars on drinking water and waste control, classes on oral dehydration therapy, and work with local envirormiental groups. The hospital has installed a solar generator and a rainwater holding tank, and it is recycling its nonmedical waste through a vermi (worm) process developed in Kerala to speed up the transformation of sewage and garbage into fertilizer that can be sold to local farmers. (For a detailed account of the Thrikkakkara cooperative hospital project, see http://chss.montclair.edu/anthro/Thrikkakkara.htm).

The Erattupettah Healthy Village Project. Near the central Kerala city of Kottayam, the citizens of Erattupettah village became especially active in a comprehensive health project that suggests a model for the future for other Kerala communities. Based on their awareness of numerous sanitation problems in the village, residents formed a 21-person "healthy village committee." In 1998 they carried out a basic health survey of the village, finding that 827 houses (20 percent) lacked proper latrines, only 16 percent of houses had private wells, the PHC was in need of major repairs, and many restaurants and tea shops were dumping waste and sewage directly into the two rivers passing through the village. Of 16 water samples taken, only two were free of *E. coli* bacteria that cause stomach problems. Fifteen percent of babies were born at below 2,500 grams, and many children remained without basic vaccinations despite high all-Kerala averages.

To correct these problems, campaign activists mobilized public opinion and action that resulted in Rs 2.4 million in local resources, which added 36 percent to the Rs 4.2 million brought into the comprehensive health project from the devolved funds. The PHC underwent major repairs. A school health program resulted in 6,000 students in the nine local schools getting checkups and health identity cards. The local taluk hospital doctors and the PHC staff then expanded the school health card project to include all residents. The 44 tea shops and restaurants were visited and citations issued; 36 of the shops fixed the sewage and waste-removal problems and got new health licenses. Restaurant employees were checked for diseases and given health certificates. The attention to public eating and drinking places seems especially important in view of a 1998-99 study in southern Kerala that showed significantly increased chances of contracting diarrhea after eating out as opposed to cooking or making tea at home (37, p. 33). Over a four-year period, 658 sanitary latrines were constructed, thus supplying 80 percent of those in need. Safe drinking water was brought to 1,750 houses, 88 percent of those in need. In addition to private homes, bus stations and markets got new latrines and bathing facilities, an important improvement in a village that has many transient workers in trade and many travelers passing through to nearby temple pilgrimage sites. A village garbagecollection site was established in an area far from houses. Although no statistical follow-up was done, local health workers whom we interviewed reported that the disease rate seems to have declined compared with that in adjacent villages. (For a detailed account of the Erattupettah healthy village project, see http://chss.montclair.edu/anthro/Erattupettah.pdf).

6. Did the health services start to function more effectively overall?

Our analysis suggests that public health and health care delivery services now function more effectively as a result of the popular campaign approach to decentralization of health services undertaken in Kerala between 1996 and 2001. Through the five years of the campaign, PHCs were improved in hundreds of localities. Physicians and community activists worked together, and relations among them improved, as exemplified in the Thrikkakkara cooperative hospital described above. One of the most important areas of improvement was the *taluk* hospitals where block *panchayats* put in equipment and local committees provided volunteer labor. Along with the Nedumangad case described above, *taluk* hospitals in Chenganassery, Vaikom, and Aluva underwent major upgrades and most others experienced some improvements. The lowest-income sections of the population were encouraged to make more use of the less expensive public sector facilities. Usage of PHCs and *taluk* hospitals increased.

SHORTCOMINGS AND FAILURES

The many achievements of Kerala's decentralization of health services must be balanced against a number of shortcomings and failures. We surveyed 56 project proposals from 12 villages in Thiruvananthapuram in the first year of the program: 22 in drinking water, 12 in sanitation, 18 in public health, and 4 in health education. In most, activity charts and timetables were poorly drawn up or unrealistic. The unit cost of services was rarely calculated. The connections with other projects-drinking water with irrigation, for example-were rarely specified. Gender impact statements were casual rather than detailed. Although project write-ups improved in later years, communities were still lacking in necessary expertise in many areas by the fifth year of the campaign, in 2001–2002. A major weakness in projects resulted from the greater need for technical expertise in medical and health projects. Whereas an experienced farmer can provide almost as much technical knowledge in agriculture as can an extension worker, a layperson does not have the skills needed for medical planning. This means that the local physicians' participation became crucial to project success. Where the doctors worked actively in the campaign, such as at Thrikkakkara or Erattupettah, excellent projects emerged. Where they held back or sent assistants to represent them, needed technical input was not available.

A further weakness emanated from the general structure of Kerala society. Participation rate data from across the state indicate that by the second and third years of the campaign, many middle-class people were staying home from the

people's assemblies. Apparently feeling that the campaign was too oriented toward the poorest groups, they withheld their support.

Beyond its own internal weaknesses, Kerala's radical decentralization suffered from its connections with sections of the bureaucracy that the campaign was not able to decentralize. Immunization programs are run through the central Indian government. PHC and *taluk* hospital physicians and other staff are paid by the state, not by the local communities. Transfer and monitoring of staff are thus beyond the scope of the decentralization, and this aroused resentment among some local planners who felt they were hamstrung in their efforts to provide better medical care. Local activists could add a new examination room to a PHC, but they could not directly intervene through the decentralization campaign to prevent or overcome staff absences. They also had problems ensuring the supply of medicines. Some communities took charge of this by assisting the PHCs in collecting needed items from government supply depots.

DECENTRALIZATION AND THE FUTURE OF PUBLIC HEALTH AND HEALTH CARE IN KERALA: NEW DIRECTIONS IN DECENTRALIZED HEALTH PLANNING

The May 2001 Kerala state assembly elections were won by a Congress-led coalition that replaced the Communist Party of India-Marxist-led coalition that had launched the People's Campaign. The election loss came as a surprise to most left activists, who had expected that the improvements in many areas of life in Kerala under the People's Campaign would result in a return of their ministry to power. Several factors not directly related to the campaign probably contributed to the loss. These included a controversial school reform, a collapse in the prices of rubber and coconut oil just before the elections, and possibly the late arrival of funds to pay the salaries of government workers in the months leading up to the polls (12, pp. 180–181). After five years of mobilization, the state-level forces that sustained the campaign were out of power. The left movement itself had taken steps in the fourth and fifth years of the campaign to institutionalize many of the procedures, so people's planning remains largely intact in Kerala despite the change of ministries. The challenge in the next few years is to maintain the achievements and fine-tune the process to maximize public participation within the new political context.

Within months of the change of ministries, health activists in Kerala had regrouped around a new project in the Mararikulam state assembly constituency won by candidate T. M. Thomas Isaac, who had been a major architect of the people's planning campaign. Thomas Isaac drafted an integrated development plan for this area, in which he had intentionally chosen to run for election in order to try to use the lessons from the People's Campaign to bring a better life to Kerala's most impoverished households. In Mararikulam, 60 percent of households live below the poverty line—more than in any other assembly district in the state.

The Mararikulam project is designed primarily to facilitate economic development through job creation by using local neighborhood associations (Neighborhood Groups, or NHGs) to set up microcredit-based cooperatives that will manufacture soap, school kits, and processed vegetables and fish for local and regional consumption. But the poverty of the area means that health problems abound. To support production efforts, a decentralized health project has been set up based on the lessons of health decentralization from the People's Campaign. Project organizers understand that workers have to be healthy in order to effect development. Among the most important features of the project are a nutrition program to be processed through the eight village assemblies in the area, along with a health survey to identify the most common diseases that can be dealt with through local resources. An innovation of the Mararikulam experiment is the idea of using the NHGs as health-promotion organs as well as production units. More than 30,000 women in Mararikulam have joined 1,631 NHGs. Each NHG meets every Sunday afternoon to go over microcredit loans, savings deposits, and community issues of concern to the women members. In addition, the meetings of 20 to 40 women are becoming health checkup forums where simple medical tests can be organized, both to save costs and increase outreach. These include blood pressure screening and record keeping, TB scratch tests, and immunization verification. The meetings reduce pressure on the local PHC, where poor people often line up for long periods during regular clinic hours. Physicians can get through much of their patient load, and neighborhood people can participate in politics while waiting for the doctor. Husbands and children congregating around the meeting can also benefit from the combination NHG and medical program. (For more information about the Mararikulam experiment, including a detailed description of the health component, see www.mararidevelopment.org).

CONCLUSION

The 1996–2001 Kerala People's Campaign for Decentralized Planning was one of the most radical attempts at decentralization in recent times. Unlike bureaucratic decentralization, the campaign aimed at extending and deepening the democratic participation of ordinary people in village and urban neighborhood assemblies by empowering them with devolved funds, training, and the chance to plan many aspects of their own development. Our study shows that in public health and health care delivery, the campaign created conditions for a more effective and efficient extension of needed public health facilities such as latrines and safe drinking water, as well as improvements in PHCs and *taluk* hospitals. Projects at the different government levels reflected the capacities of those levels, so a positive functional division of health sector tasks developed. Projects mostly reflected the will of the communities as decision-making shifted from bureaucrats in line

departments to participants in democratic assemblies. Equality of access to public health and health care was improved as below-poverty-line households, scheduled caste and scheduled tribe communities, and women benefited proportionally more. Despite many shortcomings and limitations, Kerala's recent experiment in decentralized health planning offers lessons to activists in other parts of the world who agree with its overall goals.

Acknowledgments — We received valuable research assistance from Suresh Kumar S. and from Mariamma Sanu George. We also express our thanks to the elected representatives and the volunteers of the People's Campaign who not only generated the data for this study but gave generously of their time to assist us in our research.

Our research was funded by grant no. 99-61670-GSS, Local Planning and Democratic Participation as Mechanisms for Improving Third World Health Conditions: Recent Experiments in Kerala, India, from the John D. and Catherine T. MacArthur Foundation.

REFERENCES

- Aitken, I. W. Implementation and integration of reproductive health services in a decentralized system. In *Myths and Realities about the Decentralization of Health Systems*, ed. R.-L. Kolehmainen-Aitken, pp. 111–136. Management Sciences for Health, Boston, 1999.
- Bryant, M. Planning for and within decentralized health systems. In *Myths and Realities about the Decentralization of Health Systems*, ed. R.-L. Kolehmainen-Aitken, pp. 11–26. Management Sciences for Health, Boston, 1999.
- Bossert, T., Soebekti, R., and Rai, N. K. "Bottom-up" planning in Indonesia: Decentralization in the ministry of health. *Health Policy Plann.* 6(1): 55–63, 1991.
- Kolehmainen-Aitken, R.-L. Introduction. In *Myths and Realities about the Decentralization of Health Systems*, ed. R.-L. Kolehmainen-Aitken, pp. 1–8. Management Sciences for Health, Boston, 1999.
- Solter, S. Does decentralization lead to better quality services? In *Myths and Realities about the Decentralization of Health Systems*, ed. R.-L. Kolehmainen-Aitken, pp. 95–108. Management Sciences for Health, Boston, 1999.
- Kolehmainen-Aitken, R.-L. Human resources development under decentralization. In *Myths and Realities about the Decentralization of Health Systems*, ed. R.-L. Kolehmainen-Aitken, pp. 39–64. Management Sciences for Health, Boston, 1999.
- Rondinelli, D. A., Nellis, J. R., and Cheema, G. S. *Decentralization in Developing Countries: A Review of Recent Experience*. World Bank Staff Working Papers, No. 581. Washington, D.C., 1984.
- Cohen, J. M., and Peterson, S. B. Administrative Decentralization: Strategies for Developing Countries. Kumarian Press, West Hartford, Conn., 1999.
- Stover, C. C. Financing, service delivery, and decentralization in the Philippines and Kenya. In *Myths and Realities about the Decentralization of Health Systems*, ed. R.-L. Kolehmainen-Aitken, pp. 27–37. Management Sciences for Health, Boston, 1999.

- Northrup, R. S. Decentralization in Indonesia: An evolutionary process. In *Myths and Realities about the Decentralization of Health Systems*, ed. R.-L. Kolehmainen-Aitken, pp. 157–169. Management Sciences for Health, Boston, 1999.
- Newbrander, W. The impact of decentralization on hospitals. In *Myths and Realities about the Decentralization of Health Systems*, ed. R.-L. Kolehmainen-Aitken, pp. 137–153. Management Sciences for Health, Boston, 1999.
- Thomas Isaac, T. M., and Franke, R. W. Local Democracy and Development: The Kerala People's Campaign for Decentralized Planning. Rowman and Littlefield, Boulder, Colo., 2002.
- 13. Government of Kerala. *Economic Review 2000.* State Planning Board, Thiruvananthapuram, 2001.
- World Bank. World Development Report 2002: Building Institutions for Markets. Oxford University Press, New York, 2002.
- United Nations Development Program. Human Development Report 2002: Deepening Democracy in a Fragmented World. Oxford University Press, New York, 2002.
- Franke, R. W., and Chasin, B. H. Kerala: Radical Reform as Development in an Indian State, Ed. 2. Institute for Food and Development Policy, Oakland, Calif., 1994.
- Nag, M. Political awareness as a factor in accessibility of health services: A case study of rural Kerala and West Bengal. *Econ. Polit. Wkly.* 24(8): 417–426, 1989.
- Ratcliffe, J. Social justice and the demographic transition: Lessons from India's Kerala State. Int. J. Health Serv. 8(1): 123–144, 1978.
- Kabir, M., and Krishnan, T. N. Social intermediation and health changes: Lessons from Kerala. In *Health, Poverty, and Development in India,* ed. M. Das Gupta, L. C. Chen, and T. N. Krishnan, pp. 239–269. Oxford University Press, New Delhi, 1996.
- Kabir, M. Public Health Activities and Health Transition: Lessons from Kerala. Paper presented at the Dr. T. N. Krishnan Memorial Seminar on Development Experience of South Indian States in a Comparative Setting, Center for Development Studies, Thiruvananthapuram, 1997.
- 21. Panikar, P. G. K., and Soman, C. R. *Health Status of Kerala: Paradox of Economic Backwardness and Health Development.* Center for Development Studies, Trivandrum, 1984.
- Raman Kutty, V. Historical analysis of the development of health care facilities in Kerala State, India. *Health Policy Plann.* 15(1): 103–109, 2000.
- Franke, R. W., and Chasin, B. H. Kerala state, India: Radical reform as development. *Int. J. Health Serv.* 22(1): 139–156, 1992.
- 24. Elamon, J. Agricultural development and Japanese B encephalitis: A case study from Kerala. *Mfc [Medico-Friends Circle] Bull.*, November-December 1997, pp. 5–9.
- 25. Ekbal, B. People's Campaign for Decentralized Planning and the Health Sector. Unpublished paper. Kerala State Planning Board, Thiruvananthapuram, 1997.
- 26. Halliburton, M. Suicide: A paradox of development in Kerala. *Econ. Polit. Wkly.* 33(36-37): 2341–2345, 1998.
- 27. Sadanandan, R. Government health services in Kerala: Who benefits? *Econ. Polit. Wkly.* 36(32): 3071–3077, 2001.
- Padmadas, S. S., et al. Caesarean section delivery in Kerala, India: Evidence from a National Family Health Survey. Soc. Sci. Med. 51: 511–521, 2000.
- Swaminathan, M., and Ramachandran, V. K. New data on calorie intakes. *Frontline* 16(5): 109–111, 1999.

- Meenakshi, J. V., and Vishwanathan, B. Calorie deprivation in rural India, 1983– 1999/2000. Econ. Polit. Wkly. 38(4): 369–375, 2003.
- 31. Kannan, K. P., et al. *Health and Development in Rural Kerala*. Integrated Rural Technology Centre of the Kerala Sastra Sahitya Parishad, Mundur, 1991.
- 32. Kunhikannan, T. P., and Aravindan, K. P. *Changes in the Health Status of Kerala* 1987–1997. Kerala Research Programme on Local Level Development Discussion Paper No. 20, Thiruvananthapuram, 2000. www.krpcds.org/kunhikannan.pdf.
- 33. Elamon, J. People's Campaign for Ninth Plan: An Analysis of Health Sector Projects Prepared by Grama Panchayats of Thiruvananthapuram District. Dissertation submitted in partial fulfillment for the award of master of public health, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, 1998.
- 34. Kerala State Planning Board and State Committee on Science, Technology, and Environment. *Consolidated Plan of the Local Self-Governments in Thiruvananthapuram District, 1997–98.* Thiruvananthapuram, 1999.
- 35. Government of Kerala. *Economic Review 2001*. State Planning Board, Thiruvananthapuram, 2002.
- 36. Muhammed, P. Physical Achievements of the Kerala People's Campaign for Decentralized Planning. Report to the Kerala State Assembly, July 2000.
- Thankappan, K. R. Diarrhoea Morbidity among Under-Five Children: A Comparative Study of Two Villages. Kerala Research Programme on Local Level Development Discussion Paper No. 39. Thiruvananthapuram, 2002. www.krpcds.org/book.htm.
- McGinn, A. P. Combating malaria. In *State of the World 2003*, pp. 62–84. Worldwatch Institute, Washington, D.C., 2003.

Direct reprint requests to:

Dr. Richard W. Franke Department of Anthropology Montclair State University Montclair, NJ 07043-1640

e-mail: franker@mail.montclair.edu