Report No. 7597-GH

Ghana
Population, Health and Nutrition Sector Review

March 31, 1989

West African Department
Population and Human Resources Division

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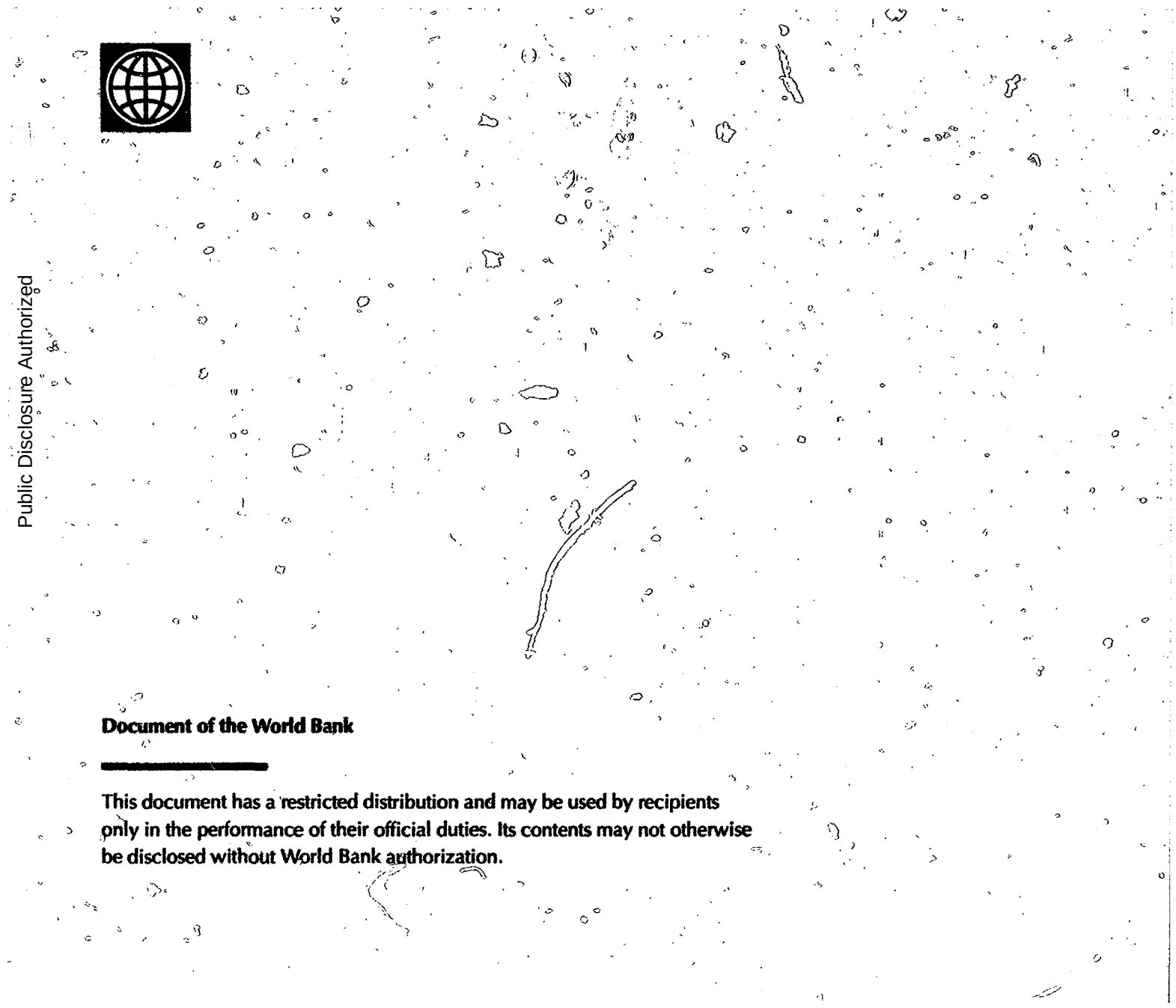

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CURRENCY AND EQUIVALENT UNITS

Currency Unit = Cedi
US$1 = Cedi 186 (Auction Rate on May 13, 1988)
(This rate has been used throughout the report)

WEIGHTS AND MEASURES

Metric System

LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
CCG	Christian Council of Ghana
CHAG	Christian Health Association of Ghana
CHN	Community Health Nurse
CHS	Center for Health Statistics
CHW	Community Health Workers
CMS	Central Medical Store
CRS	Catholic Relief Services
CWC	Child Welfare Clinic
DHMT	District Health Management Team
DPT	Diphtheria Pertussis Tetanus (vaccine)
EPI	Expanded Program of Immunization
FP	Family Planning
GIHOC	Ghana Industrial Holding Corporation
HIV	Human Immune Deficiency Virus
IEC	Information - Education - Communication
IUD	Intra-Uterine Device
MCH	Maternal and Child Health
MFEP	Ministry of Finance and Economic Planning
MOH	Ministry of Health
NDPS	National Development Planning Secretariat
NGO	Non-Governmental Organization
ORT	Oral Rehydration Therapy
PHC	Primary Health Care
PHN	Public Health Nurse
PPAG	Planned Parenthood Association of Ghana
SOE	State-owned Enterprises
TBA	Traditional Birth Attendant
UCI 1990	Universal Child Immunization by 1990
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Emergency Fund
WHO	World Health Organization

FISCAL YEAR

January 1 - December 31

GHANA

POPULATION, HEALTH AND NUTRITION

SECTOR REVIEW

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This report is based on the findings of a Bank mission to Ghana in March 1988, comprising Messrs: D. Berk (economist, mission leader), N. Bennett (planner), R. Bulatao (population/family planning), and V. Kumar (pharmaceuticals); and S. Bradley (NGOs, consultant), J. Lecomte (public health, consultant) and J. Levinson (nutrition, consultant). CIDA (Canada) provided the services of Mr. F. Zufferey (IEC) and ODA (United Kingdom) those of Mr. M. Owen (private sector). Mr. R. Bankson (consultant) edited the report. Ms. A. Joseph was responsible for its production.

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POPULATION, HEALTH AND NUTRITION SECTOR REVIEW

SUMMARY AND CONCLUSIONS

Introduction

1. This summary and conclusions first sets out background information and current issues in Ghana's population, health and nutrition sectors. It then deals with recommended reforms and targets: first, the Government's preparations and actions during 1988; second, a recommended sector reform program for the period 1989-91; third, recommended medium-term reforms; and finally, long-term targets. It concludes with background and recommendations on external assistance to these sectors.

I. BACKGROUND AND ISSUES

POPULATION

A. The Population Situation and Population Projections

2. Ghana's population was 12.2 million at the 1984 census, yielding a density of 51 persons per square kilometer -- the second highest in West Africa. In the 1980s, the population growth rate is estimated to have reached a rapid 3.2% per annum, and the total fertility rate remains 6.4. At this rate, the population will double every 22 years, and triple by 2020, i.e. within one generation.

3. Future population growth is likely to be substantial. Annually between 1988 and 2000, about 700,000 babies will be added to the population. Alternative paths for fertility could mean greatly different population sizes early in the next century. A rapid decline in fertility, for example, will yield a population of 25 million by 2020, whereas constant fertility will cause the population to swell to 45 million. Gradual fertility decline, the most likely path if a serious family planning effort is mounted, will result in a population of 32 million.

4. Current population growth is already eating up a major portion of the gains from economic recovery and structural adjustment. Unless it is slowed, the projected population growth will put great pressure on food supplies, energy resources, the environment, the education system, the labor market and the health services. It will make it difficult or impossible for the Government to afford its goals for the improvement and universalization of health, education and food security/adequate nutrition. And it will greatly slow the rise in per capita income, which could reach a level in 202[illegible] up to nearly 40% higher under gradual fertility decline than with today's fertility.

5. There is a high return to the relatively modest cost of family planning programs, in terms of savings on future education and health budgets and probably on future food imports. Furthermore, many of the benefits accrue immediately: [illegible]o maternal and child health, and consequently reduced loads on the health services, and to per capita income

growth; while the reduced load on the education system and budget is felt within about six years.

6. Contraceptive prevalence in Ghana is estimated at only 11-13% in 1987, and current estimates of the proportion using efficient methods differ considerably (from 5% to about 10%). The Ministry of Health (MOH) accounts for 40% of the 300,000-odd clients through family planning offered at about 80% of its 400-plus maternal and child health (MCH) clinics. The Planned Parenthood Association of Ghana accounts for 32% of clients through 46 clinics (half urban, half rural) and 125 community-based programs, and another nongovernmental organization (NGO) for 6%. Pharmacies account for 19%, including contraceptives sold through a social marketing program. USAID and UNFPA are the chief donors in the area of population.

B. Family Planning Program

7. Ghana was a pioneer in adopting a broad population policy in 1969 with explicit demographic targets, in establishing a family planning program, and in carrying out the Danfa project to test alternative program designs; but implementation has been erratic, so that after almost twenty years, desired and actual fertility remain high, and contraceptive prevalence is only in the range of 11-13%. This is despite the opportunity provided by an apparently large unmet need among both women and men for both child spacing and limitation of births.

8. The major family planning program issues are:

(a) a lack of explicit commitment and leadership by high-level Government officials, including public statements of support, broad target-setting and active monitoring of progress;

(b) a lack of a felt objective of increasing the number of family planning acceptors as fast as possible, and of specific targets for the program;

(c) a lack of a program strategy and of action plans for the various institutions and components involved, including the need to define priorities for design of an accelerated program;

(d) implementation problems, especially contraceptive supplies; and

(e) future financing: need to coordinate the next round of donor assistance to support the Government's strategy and action plans.

HEALTH

CURRENT SITUATION

A. Health Problems

9. Ghana has made considerable progress in increasing life expectancy at birth (to 54 years in 1985) and in reducing mortality. Nevertheless, the available indicators point to two major issues:

(a) the health status of the population remains poor, as evidenced by infant mortality of 90 per 1000 and maternal mortality of 5-10

per 1,000 births; high prevalence of preventable infectious and parasitic diseases (malaria accounts for 43% of outpatient morbidity, followed by upper respiratory infections and diarrheal diseases); and poor nutritional status; and

(b) there is considerable inequality of health status between urban and rural areas and among regions, as well as different disease patterns.

B. Overview of the Health Care System

10. Fixed Facilities. In the mid-1980s Ghana's health system counted some 1,220 service facilities. The public sector included 46 MOH general hospitals at teaching (2), regional (8) and district (36) levels, and about 250 rural health centers and posts: missions, 35 hospitals and a similar number of clinics; and the private sector, 400 clinics and nearly 300 maternity homes. Total bed capacity was about 18,600 (one for 684 people in 1985), with 14,000 in the public sector and 4,600 in missions. There were also some 3,500 drug outlets. MOH facilities at all levels require extensive rehabilitation, including basic systems and medical equipment; mission facilities may be in better condition. Very little expansion is taking place by either MOH or the missions.

11. Manpower. Ghana has trained fairly impressive numbers of medical personnel. Unfortunately, however, the years of economic decline have led to a mass exodus of qualified people both from the public sector and from Ghana. About 965 doctors currently work in Ghana (one for 20,450 people), of which 611 in the public sector, 55 (plus 25 expatriates) in missions, and 300 in the private sector. MOH employs 10,000 nurses, 80% of them clinical. Primary health care (PHC personnel) number about 4,000 at the health center/post level (level B) and another 4,000 (only 10% of original plans) at the village level (level A).

12. Utilization of Health Services. The major issue is under-utilization of services. Outpatient attendances have fallen from 10-11 million by 1973 to nearly 5 million in 1987 (perhaps 6 million after correcting for under-reporting), mainly as a result of declining standards including shortages of drugs.

13. Nongovernmental Organizations (NGOs). Around 300 NGOs operate in Ghana, providing health, population, and nutrition services to a large portion of the Ghanaian people. In 1987 the service was valued at more than ¢2.6 billion. Of this, ¢600 million was financed through government subvention of health staff salaries, and at least half by foreign donations of food and family planning inputs. Mission hospitals now account for about 30% of hospital beds and inpatient admissions in Ghana. In 1987 they provided about 35% of outpatient care. The Catholic church is by far the largest member of the Christian Health Association of Ghana (CHAG). NGOs appear to operate more efficiently and creatively than MOH, often in remote rural areas, and external funding increases the services they provide.

14. The Private Sector. The 300 private doctors, mostly located in Accra and Kumasi, have been hurt by the 1987 government decision to stop reimbursing employees of state-owned enterprises (SOEs) for private medical care. On the whole, other parts of the private medical sector are flourishing. Private midwives have potential for expanding into rural

areas and family planning services. The profitable private pharmacy sector is expanding, with some 408 practitioners mostly in Accra and Kumasi.

MAJOR ISSUES

A. Organization and Management Issues

15. MOH Headquarters Level. Many of MOH's problems are of long standing. The major ones, related to its organization and management, are:

(i) gap between policy rhetoric and implementation, most notably as regards priority for PHC and decentralization of health administration;

(ii) planning is almost non-existent;

(iii) unrealistic past budgets not based on planning targets or norms;

(iv) poor management practices and absence of processes in the day-to-day running of the Ministry; lack of clearly defined roles, job descriptions, and administrative and organizational guidelines; far too few key managers, and thus concentration of decision making, leading to bottlenecks; separation between the technical and the administrative wings of the Ministry; over-dominance of medical professionals, even in areas requiring other skills; lack of effective personnel policies: qualified administrative and managerial personnel are seriously short at all levels; existing qualified personnel are concentrated in larger urban centers; there are far too many non-medical non-technical staff;

(v) lack of horizontal communication at all levels of the system, producing a lack of integration among the main PHC initiatives, poor allocation of resources, and duplication of effort;

(vi) donors compound existing problems, for example, two independent health sector studies already carried out and two more still proposed over period of one year; each program prepared according to the donor's own priorities and perception of where the problems lie, and each pressing MOH to give it the highest priority; and establishment of parallel distribution systems.

Without a radical restructuring of the Ministry of Health, and the appointment of a core group of qualified managers to key positions, no significant improvement can be made in the delivery of health services, either curative or preventive. At the end of 1988, MOH has finalized plans for a new structure, with corresponding new functions for its HQ and regional units and job descriptions for the new senior posts.

16. Regional Level. There are two major issues at the regional level: (i) the weakness and lack of authority and resources of the

regional health administrators; and (ii) the powers of Regional Hospital Boards under recent legislation to also control PHC facilities.

B. Service Issues

1. Coverage and Access

17. There are two main issues: (i) total coverage, and hence access to health services, remains low; the modern health system effectively reaches around 65% of the population; and (ii) there is great inequality of access, both between urban and rural areas (say, 100% of the urban population and only about 50% of the rural population) and (especially) among regions (rural coverage varies by region from only 11% to 100%).

2. Primary Health Care

18. Objectives and Strategy. The basic issue is that for years there has been a wide gap between rhetoric and implementation of PHC. Official policy is still PHC-based, but rural population coverage remains only about 50%, with only 10% of smaller communities having trained health workers. PHC receives only 23% of MOH's recurrent budget. Lack of transport prevents outreach activities. Drug supplies are intermittent, and public confidence and service utilization are low. There are no realistic and effective targets and plans for expanding PHC. Investment in PHC hardly produces any completed health facilities. In sum, PHC is neglected and stuck, while pressures mount to spend even more on higher-level hospitals.

19. Organization and Management. The issues here are: at regional level, lack of a PHC structure and potential for further neglect of PHC relative to hospitals; at district level, weaknesses of the district health management teams (DHMTs); and in the system as a whole, no supervision or support, by one level of another.

20. Programs and Services. There are three major problem areas (drugs and nutrition are discussed separately). Specific program objectives and targets, set in 1978, flow from the overall target of 80% coverage by 1990 and are ambitious and implausible. Maternal and child health (MCH) services have achieved some increases in coverage, but have equipment and supplies problems and inadequately trained staff. The expanded program on immunization (EPI) has achieved only low coverage, experiences high dropout rates, has acute transport problems, and will face increasing problems of sustainability.

21. Information, Education, and Communication (IEC). The issues in IEC have been the lack of a viable strategy and resource starvation. The upshot has been scant impact in the 1980s.

3. Inputs

(a) Manpower

22. There are four main issues: (i) responsibility for manpower and training is dispersed, there is no plan for manpower requirements in relation to service targets, and hence there is no systematic manpower development; (ii) the geographical distribution of clinical personnel is highly skewed; (iii) MOH employs far too many people in the lower grades;

and (iv) enrollments in pre-service training programs are unbalanced in relation to needs, and the curricula need extensive revision, while in-service training programs have until recently fallen far short of needs.

(b) Drugs

23. The central issue is that MOH's present drug-supply system is completely failing to meet the country's needs. Demand estimation has not based on needs or actual consumption. The procurement process is cumbersome and can take up to four years from tender to arrival. Even the Central Medical Stores (CMS) has only 50% of essential drugs at any one time. MOH employees are receiving up to 40% of hospital drugs. Allocation of available items to health institutions is arbitrary. Stockouts are frequent everywhere. Expiry of drugs is an all-pervasive problem. MOH drug pricing is not rationally based on costs. Facilities are not ideally suited for storage and security. Equipment is inadequate and not properly used. Inventory management needs considerable improvement. Not surprisingly, users' confidence in the system is extremely low.

(c) Transport and Communications

24. Mobility is essential for Level B staff involved in preventive and outreach activities, and for officials at all levels for supervision. However, the issue is that, despite the provision of hundreds of expensive 4-wheel vehicles to MOH over the years, lack of maintenance and a consequent lack of mobility have persisted. In 1987, only 167 vehicles were roadworthy out of 660 (nearly all 4-wheel), with about another 212 worth repairing. MOH has updated the inventory and is seeking estimates of repair costs.

C. Financial Issues

1. Health Expenditure

25. Total health expenditures in Ghana consist of MOH expenditures, NGO expenditures, and private expenditure on private for-profit care, both modern and traditional. A rough maximum estimate of total health expenditures in 1987 would be as follows: MOH recurrent spending of ¢5-5.5 billion and capital spending of ¢2-2.5 billion (including external assistance but excluding payment of arrears), NGOs ¢2.5 billion, and private for-profit (estimated from early data from the Ghana Living Standards Survey) ¢11 billion. Total health expenditures may thus have been at most ¢21.5 billion, or 2.9% of 1987 GDP.

26. MOH health expenditures were budgeted at an expected 1.21% of GDP in 1988 (Table 6). MOH's share of the total Government recurrent budget was 9.8% for 1988 (11.8% of operational expenditures). MOH's share of the total Government capital budget was about 6% in 1988. Per capita MOH expenditures in 1988 were budgeted at ¢816, equivalent to US$4.29. The share of capital expenditures in MOH's total expenditures (recurrent plus capital) was 24.6% in 1988 including external assistance.

(a) MOH Recurrent Budget

27. The major recurrent budget issues are: (i) need to increase MOH's share of the total Government recurrent budget in 1989 to permit

rebuilding of drug stocks; (ii) high and unmanaged hospital expenditures; (iii) inadequate allocations for PHC (23% of the recurrent budget); (iv) inadequate allocations for travel/transport and maintenance (2% of the recurrent budget each); (v) massive shortfalls (one-third of budgeted amounts) of actual nonwage recurrent expenditure from budget allocations, caused by both Ghana's budgeting and expenditure system and MOH administrative weaknesses; and (vi) large potential savings.

(b) Public Investment Program (PIP)

28. For 1988, the MOH capital budget allocation was ¢1.6 billion in Ghanaian resources, with external assistance expected to bring the total to about ¢2.4 billion (about US$13 million). Total spending on 20 health projects was projected at ¢14.0 billion in the 1988-90 PIP.

29. There are five investment program issues:

(a) poor definition of project content and costs, in the absence of health needs estimates and service targets, leading to notional allocations in the PIP by area of the health system;

(b) total size, given the priority of health, the possibilities of domestic and external resource mobilization, and MOH's implementation capacity;

(c) priorities: most of the program is for PHC and for hospital rehabilitation, but proposed new projects are of uncertain priority and viability; and the balance between PHC and hospitals requires better definition in light of project costs;

(d) lack of effective monitoring and control of expenditures; and

(e) poor implementation, arising partly from dispersal of resources.

2. Health Financing

30. The overwhelming majority of public sector health financing comes from the budget. However, cost recovery has been making an increasing contribution since 1985. Recently some degree of Government approval has been given for proceeding with a health insurance scheme. Substantial external assistance has been committed to the health sector, but disbursements have been very modest, largely, but not entirely, because of MOH's weak implementation capacity.

(a) Cost Recovery

31. There are three issues: (i) the current level of cost recovery may be too great for people in remote rural areas and for the more costly or prolonged inpatient stays; (ii) abuse by MOH staff of their privilege of free drugs under the current fee structure; (iii) need to permit 100% retention of drug fees by health institutions, to use to replenish their drug supplies under a new cash and carry system at all levels.

(b) Health Insurance

32. There are two issues: (i) ensuring professional management of a scheme; and (ii) design questions to be resolved to avoid rapid cost escalation and subsidization of the scheme from general tax revenues.

NUTRITION

33. The major issues are:

(i) very high levels of child and maternal malnutrition: the 1986 national nutrition survey found 58% of children under 5 below 80% of the international standard for weight-for-age, and the incidence of marasmus and kwashiorkor reached an internationally high 8%, while 69% of pregnant mothers tested at antenatal clinics in 1987 were anemic by WHO standards;

(ii) nutrition strategy: this combines encouragement of agricultural production with a range of MOH programs, especially supplementary feeding, which cover both preventive and curative aspects, but which have limited coverage because they are facility- not community-based;

(iii) program impact: the most widespread programs, growth monitoring and supplementary feeding, may only reach 20-25% and 15% respectively of the target group; data problems hamper proper evaluation, but the hospital-based programs are too costly to replicate, those at nutrition rehabilitation centers are inconvenient for mothers, and supplementary feeding is not closely targeted on those in need and diluted by the food being taken home; a pilot project with MCH/nutrition outreach and a weaning-food project are more promising; and

(iv) inputs: the total budget and effort devoted to nutrition is hard to determine, but much more than the small Nutrition Division allocation; nutrition staffing is adequate but needs refocusing; pre-service training is unnecessarily lengthy and academic.

REFORMS AND TARGETS

A. Preparation and Actions During 1988

34. The Government fully recognizes the inadequacy of the existing population, health and nutrition services as analyzed above. With a view to rapidly improving the quality of service and the coverage of the population, it has embarked on a broad sector reform program emphasizing a manageable number of the most important reforms required, with focus on the four key areas of management, procurement, financing, and manpower. Its initial focus has been on health, largely because the problems are so great and so visible, but also because improved health services are one important requirement for a more successful population program, and because more successful nutrition strategies have not yet been evolved.

35. During 1988, the MOH has carried out a great deal of preparatory work for the complete overhaul and rehabilitation of the health system. It has organized a national health symposium in June 1988; completed a study on reorganization of the Ministry; completed detailed studies on health policy, manpower and finance; and secured enactment of a new Hospital Board Law and prepared for its implementation first in the teaching hospitals, where it has appointed a new Hospital Administrator General for Korle Bu.

36. It has started implementing an essential drug policy, including introducing essential drug lists and a national formulary; audited the inventory of drugs at all levels and destroyed expired drugs at all stores and hospitals; and prepared an estimate of drug needs based on epidemiological data. It has secured a special permit to clear imported drugs immediately from the port. It is currently preparing proposals for restructuring and strengthening the drug procurement function in the reorganized MOH; immediate rehabilitation of stores; establishing a small quality control laboratory; and rationalizing drug pricing. And it is seeking formal approval to retain 100% of the proceeds of drug sales.

37. In the area of finance, it has prepared a 1989 recurrent budget with significant improvements in the allocations for travel/transport and for maintenance, as well as for meeting drug needs including rebuilding currently depleted stocks. On the investment side, it has completed an inventory of the rehabilitation needs of health centers and posts; and a draft study of the rehabilitation needs of eight major hospitals.

38. These preparatory studies and proposals, and the actions already taken in 1988, feed directly into the next phase of the reform program.

B. Sector Reform Program, 1989-91

39. MOH is currently carrying out a large number of different activities, relative to its managerial capacity; sometimes this spread is driven by donor desires to diversify the programs they support. It is likely to perform better if it focuses its time and energy on a smaller number of priority activities. It should farm out other priority activities to NGOs or the private sector, limiting itself to initiating, facilitating and reviewing them. Recommended priority activities for MOH during 1989-91 are summarized in the paragraphs below and in Annex Table 11. These have been selected for early and substantial impact on the quality, quantity and equitable distribution of services delivered.

Population

40. The family planning program should be relaunched at its twentieth anniversary by high-level Government leaders, with a restatement of their commitment to reducing fertility not just to the health benefits involved. A national population council should be created. The Government should draw up a strategy and action plans for the program. The contraceptive social marketing program should be extended. Planned Parenthood Association of Ghana activities should be expanded. MOH service delivery points for family planning should be made fully functioning. An IEC plan for the public sector should be drawn up. A management information system, performance monitoring and incentives should be instituted. The next round of donor support (especially USAID, UNFPA, IDA) should be identified within the framework of the Government's strategy and action plans.

Health

41. Management. MOH should be reorganized and decentralized, with competent key managers in place by end-1989. MOH HQ should remain responsible for policy, planning, monitoring, supplies, and aid coordination. Rehabilitating planning should have high priority. Management processes, a management information system (covering mission facilities also), and incentives to those exceeding service targets should be instituted. All other operational responsibilities, and control of budgets and personnel, should pass to the regions which should be provided with increased authority and resources. Regional hospital boards and strengthened PHC management should promote horizontal coordination and balanced resource allocation. A system of supervision should be reestablished. Coordination with NGOs should be formalized.

42. Procurement. MOH should henceforth procure only items on the essential drug lists introduced in June 1988. The estimates of drug needs just made made should guide future drug budgets and MOH procurement, which should be speeded up and improved. Inventory management should be improved, including the prevention of future expiry of drugs. Medical equipment should be restocked using standard lists. Transport problems should receive innovative solutions, with mobility restored and outreach expanded through fixing broken-down four-wheel vehicles and purchasing motorcycles. Supply systems should be unified by the end of 1989.

43. Services. Service targets attainable through 1990 by MOH and the missions should be identified and service delivery plans drawn up. District plans should be formulated jointly with missions operating there; in certain districts, the missions should be asked to take responsibility for PHC expansion. Service delivery and resource allocation should focus on services with the greatest impact on infant, child and maternal mortality and morbidity, e.g. the expanded program on immunization and the oral rehydration therapy campaign. Service quality should be improved by completion of the new program for in-service training of all level B staff; by reallocating personnel to underserved regions; and by rehabilitation of district hospitals and the Korle Bu maternity block. Services should be extended by outreach and by completion of level B facilities now under construction. A long-term investment plan should be drawn up.

44. Finance. MOH should increase share of the Government's total recurrent budget in 1989, to meet annual drug needs and rebuild stocks, but otherwise retain roughly its 1988 shares (recurrent 10%, capital 6%) through 1990. Based on service targets and norms, the shares of PHC, transport and maintenance should increase substantially between 1988 and 1990, through growth of the total budget and through reaping potential savings in other areas of expenditure. Spending on PHC and drugs should be protected from overall resource shortfalls. MOH should receive priority in releases for nonsalary recurrent expenditures, with most guaranteed in advance to permit rational service planning. Personnel seconded to mission facilities should remain fully funded. Facility completions for PHC, and district hospital rehabilitation, should have first priority in the health PIP. Monitoring and control of PIP expenditure should be tightened considerably. New projects should have satisfactory feasibility studies before implementation. To further supplement budgetary resources, fee collection should be tightened. Aid should be mobilized and channeled on

the basis of the long-term investment plan through a meeting with donors, and its utilization speeded up.

45. MOH should achieve considerable savings through a substantial redeployment of non-technical staff by the end of 1990 to meet its actual needs, tight medical/technical staffing and budget norms, more efficient drug supply, and contracting-out or discontinuing institutional feeding by end-1989.

46. Drug financing should be completely reformed. Drug pricing should be rationalized and should pass efficiency gains on to patients. MOH staff should in future be treated like other civil servants, paying for drugs from early 1989 and being reimbursed. MOH should retain all proceeds from drug sales starting January 1, 1989 in a revolving fund to finance replenishment and port clearance. The fund should be suitably capitalized in 1989. All hospitals, health centers and clinics should pay MOH starting in early 1989 for all drugs from the proceeds of their drug sales to patients, receiving a seedstock of drugs equivalent to about 40% of their annual needs and financing the remaining 60% themselves in 1989.

47. Manpower. Priority should be given to recruiting key central, regional, and district managers, not necessarily doctors. Health manpower should be more equitably distributed, i.e. additional clinical staff provided to underserved regions, starting in 1989 under new incentives.

Nutrition

48. Existing supplementary feeding programs should be more tightly targeted. Those terminated in 1987 should be restored. Hungry season food-for-work programs should be expanded. A better overall strategy (community-based) should be defined in light of international experience.

C. Medium-Term Reforms

Population

49. MOH should expand outreach from existing service delivery points, and increase the number of such points as more health stations are built. PPAG should continue to expand its activities rapidly, with possible targets of having clinics in the 50 largest towns and outlets in the 50 largest industrial establishments by 1995, and in the 100 largest towns and 100 largest industrial establishments by the year 2000. CCG should also expand. New channels for service delivery should be added: private doctors and midwives/maternity homes, missions and major employers in both the public and private sectors (possibly also involving trade unions). And alternative channels for reaching the village (including building on the contraceptive social marketing program) should be evaluated and then new programs introduced.

50. New contraceptive methods should be added to the four current "staples" on a larger scale following pilot programs by NGOs, MOH and others: injectables, implants (when approved versions and funding become available) and female sterilization.

51. An IEC plan for the public sector should be implemented not only by [illegible] but also by [illegible] such as the Ministry of Education and Culture,

the Ministry of Information, the National Council for Women in Development, and the Ghana Institute of Management and Public Administration.

52. Training programs should be mounted for managers and staff of missions and population NGOs expanding their family planning activities, and the training program for TBAs should be expanded progressively.

53. The national population council should commission a thorough review of current and proposed laws and regulations affecting contraceptive use and fertility.

Health

54. The Government should continue its attack on mortality and morbidity, especially among children and women, by further improving and expanding health services, with priority to those with earlier and greater impact. The areas with poor health status (rural areas and the northern half of the country plus Western Region) should receive priority in resource allocation. Services should be differentiated by region according to epidemiological patterns.

55. A major objective should be to maintain public confidence in the health services, with a view to restoring utilization at least to past levels. A reasonable target would be one outpatient attendance per head per annum by the year 2000 (20 million attendances), implying an annual growth rate of 10% over the period.

56. NGOs. The Government should make special efforts to encourage the maximum possible expansion of NGO activities in health, population, and nutrition. This can be done by inviting new NGOs into Ghana, increasing subventions, and subcontracting services to efficient NGOs. The Government should adopt efficient strategies and systems employed by NGOs.

57. The missions and other NGOs should give priority to expanding family planning activities. PHC should be expanded from fixed NGO facilities. Community-based information and distribution should be improved.

58. Private Sector. The Private Hospitals and Maternity Homes Board should be reconstituted to regulate private practice and set fees. The Government should facilitate bank loans for building rural private clinics. Specialists in Government service should be allowed to practice privately. The Government should reach a compromise with private physicians over reimbursement for services to employees of state-owned enterprises. It should actively encourage rural private midwife services. The Pharmacy Board should be strengthened to ensure the maintenance of professional standards. Pharmacists in government service should be offered inducements to stay out of private practice, and training output should be expanded. The Government should encourage private pharmacists to compete to offer services in government hospitals.

59. MOH Organization and Management. A management services unit should be established within HQ.

60. To attract managerial personnel of sufficient caliber to the regions and districts, housing and other benefits should be made available.

61. If the management reform is to have a real chance of being fully implemented, major changes should also take place in the processes of agencies outside MOH as they affect MOH, especially the Ministry of Finance and Economic Planning and the Controller and Accountant General. The legal framework should also be adjusted to reflect the new structures.

62. The recent Hospital Boards Law should be amended so that regional director, not the new regional hospital boards, control health centers and posts, so as to retain a unified direction of PHC.

63. Primary Health Care. A reasonable target would be to achieve 80% coverage of PHC by the year 2000, and universal coverage by 2010. From the viewpoint of equity, service extension and investment directed at extending coverage should focus first on the underserved regions. Each region should have rural population coverage of at least 50% by 1995 and 80% by the year 2000. These targets should be translated into specific allocation decisions, otherwise they will remain aspirations on paper only. As a first step, the next 100 new health stations should all be put into the underserved regions. Within regions, site selection should maximize the numbers who will benefit by selecting first the largest unserved communities.

64. The Government should maintain its commitment to PHC and provide the necessary management and resources for its continuing improvement and expansion, so that decent public health services can be provided to a very large proportion of Ghana's people before the turn of the century.

65. Comprehensive plans for PHC expansion should be drawn up. Current 80% coverage targets should be postponed to the year 2000 in most cases and realistic intermediate targets set. Achieving even these will require substantial increases in resources and more effective management.

66. MCH/FP coverage should continue to expand to perhaps 80% by 1995. The targets for immunization coverage (subject to the starting point established in the 1989 coverage survey) could be 60% in 1995 and 80% in the year 2000, with no region lagging more than 20% behind. After 1990, static and outreach immunization services should take over from mass campaigns and maintain the momentum. Oral rehydration therapy should continue to be promoted to control diarrheal disease.

67. The Government should give priority to the IEC strategy being promoted by UNICEF, which has as its underpinnings people's perceptions of their own needs; thus it works from the village level up. The Government should consider reviving and upgrading the National Audiovisual Service to become the production unit for all training support materials.

68. Community-level (Level A) strategy can be divided into two parts. Training traditional birth attendants in villages of 500 and more in basic modern MCH/FP practices should continue on a gradually increasing scale. But the best way to meet additional needs at the community level should be carefully evaluated before embarking on any additional programs. Such an evaluation should include a thorough assessment of needed resources, identification of needed community inputs, and a gauging of how adequately the program will meet major community needs.

69. Inputs. A manpower plan should be prepared, based on future service targets, current workloads, productivity increases and hence staffing norms. Based on the manpower plan, a training plan should be prepared, including appropriate specialty training in Ghana for doctors, a drastic reduction in production of clinical professional nurses, a major expansion of PHC training combined with a thorough overhaul of curricula, continuing adequate in-service training, and rehabilitation of training institutions.

70. The various aspects of the national drug policy should be phased in over the medium term. Stores should be refurbished. The intake of pharmacy students should be increased. The local pharmaceutical industry should where competitive be encouraged to develop to produce commonly used large-volume drugs from the essential drug lists. Drug regulation and enforcement should be strengthened and a full-fledged quality-assurance program instituted.

71. Long-term plans for vehicle requirements and hence acquisition should be drawn up, based on plans for outreach and for supervision in the context of a general expansion of services. This need for vehicles should be be minimized by installing radio links from regional offices down to each DHMT and health facility.

72. Finance. MOH HQ should carry out a study of hospital costs and efficiency. On this basis, it should set targets and monitor the performance of hospital managements. MOH should study, and where appropriate adopt, mission hospital management practices and systems. Training in hospital administration should be expanded.

73. Total recurrent expenditure on PHC should continue to expand rapidly in the 1990s as coverage is extended to a much larger proportion of the rural population, services improve further and utilization climbs substantially. A large proportion of the increases should go for nonsalary items, although PHC staff strength will naturally need to expand somewhat.

74. Travel/transport expenditures should be kept up to finance rising outreach and supervision activity. Maintenance expenditures should also rise substantially to preserve the value of newly rehabilitated hospitals and health stations and new PHC facilities.

75. To improve PIP project and cost definition, the recent hospital study needs to be evaluated and more district hospitals studied. Given the magnitudes involved, it is essential to determine priorities -- especially and beginning with Korle Bu -- and draw up a phased program, taking into account MOH's future capacity to speed up contracting and implementation of rehabilitation works on a large scale at up to 46 hospitals.

76. The priorities for the 1990s should be: (i) for PHC, the completion of rehabilitation of existing health stations, of ongoing construction, and (with a cheaper design) new health stations; and (ii) hospital rehabilitation.

77. The recommended PHC investment strategy would complete the rehabilitation of what is essential at all 250 existing facilities over five years; complete the balance of the 125 health stations under construction over five years, including scaling down the larger ones; and build,

have built, or rent 660 new health stations by the year 2000, with the five underserved regions (Northern, Brong Ahafo, Western, Upper West, and Ashanti) brought to 50% rural population coverage by 1995 and all regions to 80% coverage by the year 2000. The total cost would be up to ¢1,900 million per year in 1991-93 and up to ¢1,300 million per year in 1994-2000.

78. For hospital rehabilitation, patient loads and rehabilitation costs per patient suggest that priority should go first to district hospitals, next to teaching hospitals and last to regional hospitals. The recommended investment strategy would complete rehabilitation in district hospitals by 1995, in teaching hospitals by 1998, and in regional hospitals by 2000. The total annual cost through 1995 would average ¢3.3 billion, although it will take a while to build up MOH's implementation capacity.

79. In the medium term, most service charges (unchanged since 1985) should be either increased or indexed to reflect inflation. However, to limit the impact on utilization of services, remote areas or classes of facility should be left more heavily subsidized than elsewhere when fees are raised generally; and a few charges may need to be reduced if they are already discouraging the utilization of priority services. Drug prices should continue to be determined by a cost-based formula.

80. The proposed health insurance scheme should not be run from inside MOH, but by a separate (probably new) institution headed or at least closely advised by persons with training and experience in insurance. Any start-up actions by MOH should be directed to setting up such an institution and handing over responsibility to it as soon as possible.

81. Further design work should be undertaken on a number of aspects of the proposed scheme. Care should be taken to avoid the pitfalls of setting up or leading to a parallel system of health care; rapid cost escalation; covering an unnecessarily wide range of cost items; and subsidizing the scheme from general tax revenues.

Nutrition

82. The Government should give policy-level recognition to malnutrition as a serious public health problem and articulate national goals for its reduction. Suitable goals for 1995 would be reduction of the proportion of children 0 to 5 years below 80% weight-for-age to 40% or 45%, and of the incidence of marasmus and kwashiorkor to 5% or 6%. To achieve them will require both increased agricultural production and development of less constrained nutrition services, particularly at the community level.

83. The major effort in the medium term should be to implement a new community-based strategy. Nutrition/MCH outreach from Level B facilities should use a community-participation model.

84. The Government should extend its pilot clinic-based surveillance program to cover each region of the country.

85. The content of nutrition education activities should be revamped on the basis of systematic participatory research, and a comprehensive and consistent strategy for the dissemination of these messages developed.

86. The weaning-food program should be expanded with necessary financial and transport support. Similar income-generating programs with direct nutritional links should be encouraged.

87. The provision of iron, vitamin A and iodine should be built into current programs in areas where these micronutrients are deficient.

88. The Government should consolidate and shorten nutrition training, but without sacrificing professional position grading.

89. The Government should ensure regular evaluation of nutrition programs.

D. Long-term Targets

90. The existing targets for 1990 are ambitious and implausible. They should be postponed or relaxed. On the basis of the analysis in earlier sections of this report, together with an assessment of the improvements possible as a result of the reforms under way or proposed, the table below presents a recommended set of targets in key areas up to the year 2000. They look toward the preparation of a first set of annual and medium-term rolling plans during 1989, and the installation of a health/management information system designed to permit monitoring of progress in key areas.

Indicator	Unit	Now	Long-term Targets 1990	1995	2000
POPULATION					
Contraceptive prevalence rate	%	11-13	14	21	31
Total FP acceptors	'000	305	304	545	965
New FP acceptors	'000		146	258	433
HEALTH					
1. PHC					
Rural Coverage					
- 5 advanced regions	%	43-100		80-100	
- 5 underserved regions	%	11-39		50	80
Outpatient Attendances	m	6	8	13	20
MCH					
- ANC coverage	%	50	60	80	
- CWC coverage	%	50	60	80	
Fully Immunized 0-2					
- national	%	<20	40	60	80
- worst region	%	<10	20	40	60
Facilities Investment					
- completions	#		60	120	All
- rehabilitation	#		100	255	
- new	#		0	350	700
2. Hospital Rehabilitation			1995 District (36) 1998 Teaching (2) 2000 Regional (8)		
3. Drugs					
Stock-outs at CMS					
- all items	%	50-60			
- general ED list	%		0		
- hospital ED list	%		20	0	
Expired at CMS	%		0		
4. Manpower					
Max. regional outpatients/ inpatients per					
- doctor	#	16,763/1,781	12,000/800		
- clinical nurse	#	1,763/104	800/40		
Redeployment (non-technical)	#		8,000		
5. Finance					
MOH share of budget					
- recurrent	%	10	10		
- capital (excl. aid)	%	6	6		
Shares of MOH budget					
- PHC	%	23	1988-90: 25%p.a. real increase		
- Travel/transport	%	2	3		
- Maintenance etc.	%	2	3		
Drug cost recovery	%	34	70		
NUTRITION					
Children 0-5					
- < 80% weight-for-age	%	58		40-45	
- marasmus/kwashiorkor	%	8		5- 6	

EXTERNAL ASSISTANCE

91. Pledged and committed assistance for population, health and nutrition from about 15 donors during 1985-90 is about US$40 million from bilateral sources and about US$45 million from multilateral sources. Disbursements have probably been rather more than the US$11 million identified in the latest PIP documents, but have clearly lagged considerably behind original expectations.

92. There are four main issues: (i) the volume of assistance committed; (ii) its relation to Ghana's health problems, priorities and systems; (iii) slow project implementation and disbursements; and(iv) need for aid coordination.

93. Recommended public sector expenditures during 1989-91 total about ¢75 billion in current prices (recurrent ¢52 billion and PIP ¢23 billion). Projects in the draft PIP have remaining financing gaps totaling US$143 million equivalent, of which US$101 million in foreign exchange. Many priority actions for 1989-91 recommended in this report also have unmet financing needs; these should have first priority with donors for either reallocation of existing funds or new commitments.

94. Funds likely to be available include the pledged or committed but undisbursed pipeline of anywhere from US$47 million to US$74 million; perhaps about US$70 million in new commitments in the next two years from the United Kingdom, United States, IDA, UNFPA, UNICEF and WHO, half for spending beyond 1991; and funds from others (including new donors) from whom commitments on US$10 million per annum should be sought. The target should be to disburse US$50 million worth of aid in 1989-91.

95. Improving implementation and disbursements will require important actions by MOH even more than by donors. MOH needs to focus its limited administrative and implementation capacity on a smaller set of priority activities; strengthen its HQ unit(s) for aid coordination and project implementation; and make regional managers the direct counterparts of donors for implementation. Donors should first help ensure full funding of 1989-91 priority activities via reallocation or new commitments; provide full funding to fewer activities; continue to and increasingly fund recurrent expenditures (essentially non-wage) and local costs; deal increasingly with the regions despite the extra initial administrative load on donors themselves; and train MOH staff on donor activities and procedures.

96. Increased aid coordination is needed to deal with existing overlaps and multiple-source financing of activities, and as the volume of activity and number of donors grow. Additional full sector studies by donors do not appear necessary at this stage. The local aid group already takes care of regular coordination. Two special exercises should also be mounted in 1989; for the next round of assistance to family planning, around May; and a full sector meeting (in Accra) in fall 1989 on the basis of the Government's long-term investment plan for the sector, grouping existing and new donors and major NGOs.

GHANA

POPULATION, HEALTH AND NUTRITION SECTOR REVIEW

Introduction

This report analyzes background information and current issues in Ghana's population, health and nutrition sectors; the Government's preparation for reforms and initial actions during 1988; recommended reforms in the 1989-91 period and in the medium term; long-term targets; and external assistance to these sectors. Part I deals with all aspects of population; Part II with health; Part III with nutrition; Part IV pulls together by period (first for 1989-91 and then for the medium term) the recommended reforms and targets in all three sectors; and Part V deals with external assistance.

I. POPULATION

1.1 Ghana's population is growing at a rapid 3.2% per annum. This increase is eating up a major portion of the gains from economic recovery and structural adjustment. Unless it is slowed, it will continue to place considerable strains on the country's resources and on essential services that the Government provides, and prevent it from reaching its development targets. Ghana was a pioneer in adopting a population policy and establishing a family planning program, and in carrying out the Danfa project to test alternative program designs; but implementation has been erratic, so that after almost twenty years, desired and actual fertility remain high, and contraceptive prevalence is only in the range of 11%-13%. This is despite the opportunity provided by an apparently large unmet need among both women and men for both child spacing and limitation of births. The program suffers from a lack of explicit commitment, leadership and monitoring at high levels of Government; moribund leading organizations; an absence of either targets or a strategy and action plans for reaching them; and limitations and problems in the design, content and implementation of the program components.

1.2 A renewed high-level commitment to the reduction of population growth and redoubled efforts are needed. The relaunching of development planning in Ghana, the twentieth anniversary of the population policy, and the readiness of population donors to embark on a new round of major assistance, make 1989 a year of opportunity for the Government to publicly renew its commitment and to draw up and launch a comprehensive strategy and action plans. These should aim to increase contraceptive prevalence to 20% by 1995 and 30% by the year 2000, with a target that the total population in the year 2000 not exceed 20 million.

A. Population Growth and its Consequences

1.3 As of the last census (1984), Ghana's population was 12.2 million, yielding a density of 51 persons per square kilometer. The 1970-84 annual growth rate was 2.5%; however, with the changing age-structure of the population, the growth rate is estimated to have reached 3.2% per annum in the 1980s. The estimated crude birth rate for 1985-90 is 45 per thousand, and the crude death rate is 13 per thousand. Ghana's

population is young, with 47% estimated to be under 15 in 1987. The total fertility rate is estimated at 6.4.

1.4 Population growth is likely to be substantial. Annually between 1988 and 2000, about 700,000 babies will be added to the population. Alternative paths for fertility could mean a total population between 19 and 21 million in the year 2000, and greatly different population sizes early in the next century. A rapid decline in fertility, for example, could yield a population of 25 million by 2020. Gradual fertility decline (to a net reproduction ratio of one over 50 years) will result in a population of 32 million by then. But a continuation of today's fertility levels will cause the population to swell to 45 million by 2020, i.e. the total population will triple in one generation. Alternative population projections and their implications are at Annex Table 2.

1.5 Many sectors of society are affected by rapid population growth and high fertility. Households with large numbers of children, though some of them may benefit from the additional labor, still find themselves pressed for basic necessities and seldom can provide much for the children's future. Women in particular face not only additional daily burdens but also greater health risks from many, and often inadequately spaced, births. Closely spaced births, pregnancies below age 18 and above age 35, and pregnancies after four or more births all result in a greater risk of infant deaths. Larger numbers of births, more risky pregnancies and larger numbers of infants and young children add disproportionately to the load on the health services. The Government is forced to find the much greater resources to expand its services faster, or if -- as is likely -- it cannot afford to do so, the population is forced to suffer a deterioration in service coverage or quality. Increasing demand for food requires much greater investment in food production or the expenditure of scarce foreign exchange for imports. Young people entering the labor force require employment creation on a large scale. Urban residents suffer from severe housing and sanitation problems. And the country's land, forest, and water resources are stressed, leading to environmental degradation and loss of productive capacity.

1.6 The number of children requiring education after the next five years will depend on fertility levels. Primary school enrollments were about 1.5 million in 1985, for a gross enrollment rate of 68%. In secondary school, the estimate is 0.77 million students, for a gross enrollment rate of 44%. The Government's targets for enrollments are: in primary, 5% per annum increase; in secondary, 850,000 in 1993/94; secondary enrollments have been increased by 5% per annum thereafter for purposes of projections. With constant fertility, universal primary education can only be attained in the year 2016, while with a gradual fertility decline it could be attained as early as the year 2001, assuming enough resources are made available to meet the enrollment increases projected. The secondary school enrollment ratio under the above assumptions will dip to 41% in the year 2000, although the current sector reform program will double throughput by the early 1990's compared with now; thereafter with constant fertility the enrollment ratio would rise to 51% by 2020, but with gradual fertility decline it would reach as much as 73% by that year, assuming enough resources were made available. However, the need to maintain and increase the quality of education at both primary and secondary levels will draw resources away from the achievement of these increased enrollment

ratios. But in any case, the impact of higher population growth rates is clear and substantial.

1.7 The number of 18-year-olds, a rough indicator of job creation requirements, will increase from 275,000 in 1987 to 430,000 in 2000 regardless of fertility changes, because these young people have already been born. But by 2020 the number will be 700,000 even with gradual fertility decline, or 900,000 if today's fertility is unchanged. Job creation will have to speed up even further, or higher unemployment be tolerated, if fertility does not come down.

1.8 Continued rapid population growth will also have a major impact on future per capita incomes. The Government's target for GDP growth in the long term is 5% per annum. Faster population growth will lead to some, but not corresponding, increases in GDP growth, as jobs and complementary resources must be found for extra hands to produce output, while savings may actually be reduced. If fertility continues at today's levels, much of the gain in income will be eaten up by increased numbers. Assuming 5% per annum GDP growth under all population assumptions: with constant fertility, GNP per capita will rise from ¢68,200 in 1988 to at least ¢81,500 (in 1988 prices) by the year 2000 and at least ¢102,300 by the year 2020. But if a gradual decline in fertility is achieved, GNP per capita would rise to at least ¢84,800 by the year 2000 and at least ¢141,300 by the year 2020. Thus a gradual fertility decline will increase GNP per capita by about 4% by the year 2000 and by a highly significant 38% approximately by the year 2020. These are maximum estimates, since GNP would rise somewhat more with faster population growth than with slower. But there is no doubt that there is a high return in terms of per capita income growth to reducing fertility.

1.9 Rapid population growth will also make it difficult or impossible for the Government to afford its goals for the improvement and universalization of health, education and food security/adequate nutrition, or at least delay them substantially. The proportion of GDP that would have to be spent on the social services to meet the higher demands outlined above is likely to prove out of reach even with foreseeable external assistance. Instead, incurring the relatively modest cost of family planning programs will yield substantial savings on future education and health budgets and probably on future food imports.

1.10 The timing of benefits from reduced population growth is also important. Benefits in terms of improved maternal and child health, and consequently in terms of load on the health services, accrue more or less immediately. Per capita income growth also accelerates immediately. The load on primary schools will be alleviated in about six years, permitting a faster rise in the enrollment ratio, and in secondary schools in about 11 years. The impact on the job market is spread starting after about ten years.

B. Family Planning Program

1. Political Commitment and Leadership

1.11 Ghana was among the leaders in Africa in recognizing the severe consequences of rapid population growth for development and per capita

income growth, promulgating a broad population policy in 1969. Currently it is one of 14 countries in sub-Saharan Africa with formal population policies, and one of only five with specific fertility reduction targets. The Population Impact Project has recently provided leaders with good information on population issues, but only a few ministers have made public pronouncements or given newspaper interviews hitherto. There has not been strong and consistent leadership and direction in the implementation of the program. As a result, implementation has been erratic. It is not sufficient just to put some money in the MOH budget and to allow the population NGOs and DANAFCO to operate.

1.12 To raise official and public commitment to and increase the momentum of population programs, strong personal commitment at a high political level is needed to provide leadership and press the national population effort, and especially the family planning program. In most countries with successful programs, the head of state/president or prime minister has played this role.

1.13 The impending relaunch of development planning in Ghana, and the upcoming twentieth anniversary of the population policy, make 1989 a particularly appropriate year for the Government to publicly renew its commitment to the population policy, by making population and family planning a national priority. It should also prepare a comprehensive strategy and plans of action for reaching both demographic and maternal and child health goals through the family planning program.

2. Organizational Structure of the Program

1.14 Ghana's family planning program has had significant organizational problems. Its apex organization, the Ghana National Family Planning Board, has become essentially defunct. The Ghana National Family Planning Program Secretariat, which is located in the Ministry of Finance and Economic Planning, has few functions and little power.

1.15 A national population council or commission should be created, as recommended in the 1986 Legon Plan of Action on Population, to coordinate a multisectoral effort at moderating population growth. It would have the twin functions of providing leadership, coordination and oversight, and of being a body representative of all major parties in the population field. It would be associated with the National Development Planning Secretariat (NDPS) and its work would feed into and support that of NDPS, especially the introduction of population into economic and social planning. But experience elsewhere shows that oversight of a country's family planning program by the national planning agency itself has not made for strong programs; and that the important work of the planning agency's population and manpower planning section does not obviate the need for a national population council.

1.16 The leader of the population effort would chair the council. The council would coordinate and provide support for efforts at promoting understanding of the implications of population growth and encouraging the practice of family planning; set broad targets for the family planning program; monitor progress in achieving the targets, which experience elsewhere has shown to be a vital characteristic of effective programs; develop and suggest to other agencies innovative ideas about the delivery of family planning services; and assist in generating resources for population

activities and (if requested) advise on their allocation among institutions and activities, but without having any control over or responsibility for the distribution of such resources.

1.17 To carry out its tasks, the council should have wide representation, including nongovernmental organizations (NGOs) and researchers. It should be supported by a reconstituted small secretariat, located in the offices supporting the PNDC or the Committee of Secretaries to enable the requisite intersectoral coordination. This secretariat would coordinate the process of population policy formulation. It would not undertake service delivery but would coordinate Government information-education-communications (IEC) activities in the population field. To underline the importance of population work and secure the necessary cooperation, the head of the secretariat should be given the rank of a chief director.

3. Strategy and Action Plans

1.18 Ghana does not currently have realistic targets, a comprehensive strategy or action programs for its family planning program. The target set about 10 years ago, of reaching a 30% contraceptive prevalence rate by 1990, has not been modified officially although it is obviously far out of reach. Elements of a strategy exist for MOH's maternal and child health/family planning (MCH/FP) services. A recent review implies a target of serving 12% of women in the fertile age groups by 1994; and in-service training of the existing staff in family planning including IEC has just begun in late 1988. PPAG has a 1988-90 plan and the contraceptive social marketing program also has multi-year targets and action plans. There are no corresponding targets or action plans for the mission health facilities and the other priority components of a broad family planning program.

1.19 The Government should set broad targets for the program (next section) and prepare a comprehensive strategy and action plans to reach them. These should cover policies, institutional arrangements, service delivery, IEC, training, financial requirements, etc. Even before creation of the national population council and its secretariat, an ad hoc working group should start the preparation. It should include the wide range of government agencies which need to be involved, population NGOs, missions, the firm implementing the social marketing program, private medical representatives and academics. This work should be undertaken early in 1989, feeding into and taking off from the relaunch of population efforts by Government leaders.

1.20 To achieve the maximum impact with the resources available, the strategy and action plans should focus in a first phase of two or three years on a few crucial items which can be expected to produce the major part of the total impact on contraceptive use and therefore on fertility. The next most crucial program components should be planned in the first phase, but their implementation should be left to a second phase. Low-priority components should be delayed. The following sections attempt both to identify important components of the strategy and action plans and to recommend a phasing for them.

1.21 In the first phase, the expansion of service delivery should be given priority, to satisfy existing unmet need for birth spacing and limitation. Activities to increase demand and utilization should be

planned, but will become relatively more important in the second phase. Within service delivery, the priorities for the first phase should be:

(a) a focus on urban areas, where both service facilities and potential clients are more numerous;

(b) extension of the contraceptive social marketing program (DANAFCO) to more towns;

(c) expansion of population NGO services (especially PPAG) to more towns;

(d) making all MOH's MCH service delivery points fully functioning outlets for family planning services (contraceptive supplies, staff assignment and training, postpartum program); and

(e) management of program implementation: management information system, supervision, monitoring and feedback of performance, competition and awards/incentives.

4. Targets

1.22 Actual and Desired Fertility. Ghana has passed the threshold where fertility has begun to decline in other countries (life expectancy above 50 years, infant mortality rate below 100 per 1000). But it is at an early stage of the typical process of fertility decline: the total fertility rate of 6.4 is high and has not declined since the late 1970s. The other available data on fertility date from 1979/80. At that time, the average age of marriage was 19, and women spent 72% of the years 15-44 in marriage. The high prevalence of polygamy (35% of married women) may have been contributing to keeping fertility high. Factors tending to reduce fertility were breastfeeding (5 months exclusive breastfeeding, 15 months partial, with moderate urban/rural variation, but with younger and especially more educated women doing less breastfeeding); and an average postpartum abstinence of nine months. There has been some decline in actual fertility among women over 35; and both education (to middle/secondary level) and urban residence reduce actual fertility by 1-1.5. The birth interval was already 32 months, except for the first interval of 21 months.

1.23 Desired family size remained large at 6.0 as of 1979/80. Factors include a cultural preference for large families, the replacement and insurance motives for childbearing arising out of still high infant and child mortality, and (at least at that time) problems with the supply of contraceptives. But the fact that desired family size is a little smaller than actual fertility foreshadows a gradual further decline in fertility. This will be furthered by increasing levels of education, also by increased urbanization; the proportion of Ghana's population in towns of 5,000 or more was 31% in 1984 and is projected at around 50% by the year 2000.

1.24 Contraceptive Prevalence. By 1987, the numbers of family planning acceptors suggested that the contraceptive prevalence rate was 11%, with nearly all acceptors using efficient methods. Preliminary results of a 1988 demographic and health survey suggest a less optimistic picture: nearly 13% of married women using contraception, but only 5% using efficient methods which is no more than in 1979/80. The disparate

estimates need to be reconciled, especially as they affect what would be realistic targets in future. The overall contraceptive prevalence rate on either estimate is actually the sixth highest in sub-Saharan Africa. Nevertheless, there is no doubt that the level of achievement, after nearly 20 years, is very disappointing in relation to the country's needs.

1.25 The low contraceptive prevalence does not reflect a lack of knowledge about contraception or where to get it, which in Ghana is above average for sub-Saharan Africa. The low prevalence also contrasts strikingly with the apparently large unmet need for contraception. The proportion of women saying that they wanted to space births (have their next child in two years or more time) was as high as 45% in 1988, when only 13% of them were using contraception including 5% modern methods. The proportion of women saying that they wanted to limit births was as high as 22% in 1988, when only 20% of them were using contraception including 9% modern methods. Thus two-thirds of Ghanaian women appear to be potential clients of family planning programs even now. And even among them only a small fraction are using modern contraceptive methods, or any method at all. Even discounting somewhat both the responses and the likelihood of behavioral change in practice, there seems to be considerable potential for accelerating the very gradual past pace of translating knowledge about contraception into actual use. This presents an opportunity for an expanded family planning program.

1.26 The Government should set itself explicit demographic targets. Experience elsewhere has shown that this, rather than objectives in terms of maternal and child health alone, is a characteristic of successful programs. Specifically, the Government should consider setting a target of achieving a gradual fertility decline to a net reproductive ratio of one in 50 years' time. This will require a contraceptive prevalence rate of 14% by 1990, 21% by 1995 and 31% by the year 2000 (efficient methods). Such targets are attainable if the starting point is in fact almost 11% prevalence of efficient methods, but if it is 5% the targets for 1990 and perhaps also 1995 would have to be reduced. The number of new acceptors who must be recruited each year rises from not many more than 100,000 in 1987 to 146,000 in 1990, 258,000 in 1995, and 433,000 in the year 2000. These targets are recommended because they appear feasible, given the existing and foreseeable capacities of the service agencies, even though a more rapid fertility decline would be desirable. The targets will permit holding the population growth rate to 2.8% by the year 2000 and 1.7% by 2020, so that the population will not exceed a recommended target of 20 million in the year 2000, and 32 million in 2020. This will mitigate considerably the disastrous effects which a continuation of today's fertility would have on school enrollments, load on the health services, and job creation and housing requirements, as well as the nation's resources and environment. It will also permit progressively faster increases in per capita incomes. Some of the major quantitative implications of such a gradual fertility decline are set out in Table 1 below.

Table 1: Target Fertility Decline and its Implications

		1985	2000	2020
Population	(m)	12.7	20.3	32.3
Population Growth Rate	(% p.a.)	3.3	2.8	1.7
Number of 18-Year-Olds		275,000	430,000	700,000
Primary Enrollment Ratio	(%)	68	96	100
Secondary Enrollment Ratio	(%)	44	41	73
Food Production Growth	(% p.a.)		5	2.5
GNP per capita Growth	(% p.a.)		2.1	3.2
Contraceptive Prevalence Rate	(%)	9.5	31.0	
Total Number of FP Acceptors		177,000	965,000	

5. Program Design and Content

(a) Institutional Channels

1.27 Ministry of Health (MOH) clients are estimated to have accounted for 40% of family planning acceptors in 1987, Planned Parenthood Association of Ghana (PPAG) for 32%, Christian Council of Ghana (CCG) for 6% and pharmacies for 19%.

1.28 In the first phase, a few major channels should be stressed. The social marketing program should continue to be given high priority. PPAG (and CCG) should implement a major expansion of their services, with support from both the Government and donors. MOH should expand its services, integrated with MCH services, to all existing and newly completed health facilities.

1.29 In a second phase, more channels should be added. The role of private doctors, who have a limited clientele but one relatively more likely to accept family planning, and private midwives/maternity homes should be expanded. Missions should expand family planning services to all hospitals and clinics. A new institutional channel should be opened up: major employers in both the public and private sectors (possibly also involving trade unions). Finally, alternative channels for reaching the village level should be evaluated, in addition to the new TBA program.

(b) Clients

1.30 As already mentioned, the preliminary results of the 1988 demographic and health survey indicate that two-thirds of Ghanaian married women are potential family planning clients even now (23% for birth limitation and 45% for birth spacing including users, 21% and 45% respectively among non-users only). Also surprising, the figure for the husbands interviewed was as high as 60% (19% for birth limitation and 41% for birth spacing including users). The men are somewhat older than the women when they begin to want to space and limit births; but at equivalent levels of education, a higher proportion of men than women is favorable to family planning. This suggests that much more priority should be given to information and services aimed at men.

1.31 The survey provides additional information useful for targeting both service delivery and information-education-communications. Among currently married women who are non-users and have the following characteristics, the figure in parentheses shows what proportion are would-be spacers: under 30 years old (63%); living in Northern, Upper East or Upper West (56%); with zero to 2 children (55%); with middle school education (52%); with 3 or 4 children (51%); with 5 or more children (birth limiters, 51%); living in Brong Ahafo (50%). Looked at another way: good candidates among non-users for birth limitation are over 30 years old, have 5 or more children, are somewhat more urban than rural, or live in the southern half of the country; education levels are unimportant. Good candidates for birth spacing are under 30 years old, have zero to 4 children, are somewhat more rural than urban, or live in the northern half of the country; those with middle school education are more favorable, otherwise education levels are unimportant. The finding that education levels make little or no difference in the case of non-users is puzzling; actual use increases with education. An earlier study found that women's secondary education was the most important factor in contraceptive use in the late 1970's, followed by having a source of contraceptives within 30 minutes.

(c) Service Delivery

1.32 MOH provides family planning, integrated with maternal and child health services, in about 80% of 400-plus health facilities, i.e. in nearly all hospitals and health centers and over half of the country's small rural health posts. In 1987, MOH recorded 120,000 new and continuing acceptors of family planning in 9 regions. These numbers appear substantial, but are only 4% of women of reproductive age.

1.33 MOH HQ should continue to plan, set standards for, and monitor and evaluate its own family planning activities. To prevent a possible submergence of family planning, particular staff should be given primary responsibility for it. Services should remain integrated with maternal and child health activities. But family planning needs to be given adequate priority within MCH/FP (and MCH/FP given adequate priority within MOH); adequate management time, and enough resources (possibly even a separate budget). Some degree of decentralization of e.g., IEC and supervision, might be helpful if it encourages greater local initiative, within central guidelines. MOH should adopt successful approaches pioneered by NGOs, such as the use of satisfied acceptors to distribute contraceptive supplies.

1.34 MOH should focus on a limited set of priority actions in the first phase, focused on the main objective of increasing the use of contraception. Otherwise the present and foreseeable diversification of population activities (often pressed by donors) will test and diffuse its limited administrative capacities. The priority activities concern the management of program implementation and planning for future programs.

1.35 Several first phase actions will improve service delivery by ensuring full functioning of existing service delivery points. First is ensuring the regular availability of enough contraceptives at all family planning outlets, starting with the outlets serving larger numbers of clients. Second is pushing through the ongoing training programs for health station staff in family planning including IEC and IUD insertion. Third is extending family planning services to the final 20% of existing MCH outlets. Fourth is an energetic postpartum program, to ensure that all

women delivering in MOH facilities are offered family planning and to increase the proportion of acceptors. To complete the requirements for a well-managed program, and to motivate regional and district government leaders, program managers and service providers, MOH should draw up plans for systematic supervision of program implementation, regular monitoring of progress towards agreed targets, feedback to leaders and to participants on how they and their peers are doing, and awards/incentives to the more successful ones.

1.36 High priority planning tasks in the first phase are: coordinating preparation of the population strategy and action plans; planning for MOH's own second-phase activities as described below; and coordinating the next round of donor assistance to population activities.

1.37 In the second phase, MOH should increase the impact of existing service delivery points through outreach, to recruit as family planning acceptors a higher proportion of both the women who attend antenatal care at health institutions but deliver elsewhere, and those who deliver at MOH facilities but do not accept family planning postpartum. MOH should also expand access to services in two ways. The first is through staffing, and opening family planning services at, newly completed health stations. The second is by opening a new channel for services, by drawing up plans for family planning services at major employers in both the public and private sectors. MOH may wish to provide them itself at state-owned enterprises. In the future, MOH may want to move to a division of labor under which it would focus on smaller towns and the rural areas which others are unlikely to serve, leaving the expansion of family planning services in urban areas largely to the population NGOs, especially PPAG. In any case, MOH should evaluate alternative ways of providing family planning services to villages, e.g. traditional birth attendants, women's organizations, village stores, mobile services from health stations, community-based family planning workers, and primary school teachers or other prominent persons in the village. To increase the maternal health benefits of the program, MOH should introduce a reproductive risk checklist, to identify mothers who should deliver their babies under medical supervision.

1.38 A small number of <u>other ministries</u> also have important roles to play in population activities starting in the first phase. They should be requested to draw up programs as part of the overall strategy work. The national population council should coordinate their activities. These activities should be separately identified and adequately budgeted as part of the national population effort. The Ministry of Education and Culture should draw up specific targets and action plans to have more girls complete primary education and enroll in secondary school, as Ghanaian women with this much schooling favor smaller families. The efforts underway to introduce family life and population education into school curricula should continue and be extended to teacher training. The Ministry of Information should draw up specific action plans for its role in implementing IEC for population and family planning. The Department of Social Welfare may also be able to play a useful role in the second phase which should be planned.

1.39 The <u>contraceptive social marketing program</u>, started in 1986, is carried out by the private firm DANAFCO using contraceptives provided by USAID. By the end of 1987, DANAFCO had sold condoms to 500-700 out of a potential 3,500 retail outlets, including pharmacies and licensed chemical

sellers. Foaming tablets and oral contraceptives were introduced later. DANAFCO is also training staff of these sales outlets and mounting a media advertising campaign. Its brand of condoms has taken the market away from government brands in three major cities. The scheduled expansion plans to include smaller towns and the remainder of the retail outlets (especially licensed chemical sellers) should be pursued as a matter of high priority in the first phase. The second-phase evaluation of ways to reach the village should consider how to build on this program, e.g. through use of village stores as outlets for barrier methods.

1.40 Two organizations dominate activities by population NGOs. The Planned Parenthood Association of Ghana (PPAG) has long been a leader in this area and maintains an active family planning program. A smaller effort is maintained by the Christian Council of Ghana (CCG), with major funding from the World Council of Churches and Family Planning International Assistance. PPAG's 46 clinics in eight regions (half urban and half rural) and 63 nonclinical outlets recorded 98,000 acceptors in 1987, not many less than MOH through one-third as many outlets. It is funded largely by the International Planned Parenthood Federation, but at a roughly constant level in recent years. CCG's external funding may not be sustained at present levels.

1.41 PPAG's 1988-90 plan provides for an expansion from an average of 45 clinics and 125 non-clinic outlets (including 24 industrial establishments) in 1984-86, to an average of 50 clinics in 1988-90 and 240 non-clinic outlets (including 30 industrial establishments) by 1990. Its clientele at clinics is expected to increase from 253,000 to 450,000. PPAG should be requested to extend its 1988-90 plan to provide for a major expansion of its services in the 1990's, as part of the overall strategy work. Suitable targets may be for PPAG to have clinics in the 50 largest towns within five years (a doubling) and in the 100 largest towns in Ghana by the year 2000 (a fourfold expansion), provided enough clinic managers and staff can be found and trained. PPAG should plan to provide more frequent services to increase the numbers of acceptors per clinic. PPAG should in addition participate in planning the opening of family planning services at major employers in the second phase, and may wish to participate in implementation, perhaps with focus on the private sector. And its IEC work, programs aimed at men and youth, and training activities should continue and expand. CCG should also draw up plans for expansion of its services. The NGOs would be good vehicles for pilot projects employing new contraceptive technology as it becomes available -- especially injectables. To finance these expansion plans will require new sources of funding. The Government should provide partial funding of these nonprofit family planning services as it does for mission health services, possibly on a matching grant basis. Major population donors should also begin funding these NGOs by supporting their expansion.

1.42 The mission health facilities have generally given family planning relatively low priority. There is a lack of information on services and acceptors, family planning educators in MCH services, and low levels of service. But the National Catholic Secretariat, which oversees more than half of the mission facilities, does have 12,000 acceptors in its natural family planning program. The missions should be requested to plan to achieve the extension of active family planning services (using methods acceptable to them) to all mission health facilities and outreach programs within the survey area. This would make services -- including clinical methods

(IUDs) -- effectively accessible to the roughly one-quarter of health system clients who attend mission facilities.

1.43 Methods. Over 90% of family planning acceptors now use just three contraceptive methods -- the pill (41%), vaginal foam tablets (34%) and condoms (17%) -- which have increased their shares in the 1980s at the expense of IUDs and injectables. However, nearly all methods are offered and there is already a small clientele for each of them except male sterilization. Given that more potential clients want birth spacing than birth limitation, temporary methods such as the current favorites should continue to be emphasized. MOH's current training program to have one person able to insert IUDs at nearly 300 service points is a useful addition; IUDs require high-quality training and reassurance to clients. Younger women may favor the pill and barrier methods, older women the longer-term but not permanent IUD. Condoms are especially important given the rise of AIDS. The major service channels should concentrate on these four methods in the first phase. Current and future pilot programs using other methods are creating a foundation for later incorporation in the program on a larger scale. NGOs, private doctors/midwives or where appropriate pharmacies could take up methods such as injectables, implants (when approved versions and funding become available) and female sterilization, which may appeal to older women for birth limitation as the family planning program evolves. MOH need only remove obstacles to their use at this stage; later it could provide them itself on some scale.

(d) Information-Education-Communications (IEC)

1.44 Already by 1979/80 knowledge of contraception was relatively high except in northern Ghana, but knowledge of where to obtain it rather lower. By 1988, three-quarters of both women and men knew of at least one modern method, and nearly all of them knew a source: if some regions still lag behind, they should be targeted for early special efforts. Also, information about IUDs should be expanded as service availability increases (only 40% informed). But some responses in the 1988 survey (reasons for non-use of contraception, see below) suggest that ignorance is still an important factor requiring additional efforts.

1.45 Nevertheless, the fundamental problem in Ghana is to translate the considerable knowledge of contraception and its sources, and the stated interest in birth spacing and even in birth limitation, into more actual use of contraception. The major obstacle, here as everywhere in sub-Saharan Africa, is the desire for large families built into the culture for both social and economic reasons. General economic development, with rising levels of education, urbanization and female employment outside the home; increasing direct costs of child-rearing, including food, clothing, education and health services; and a trend towards increasing scarcity of land and other resources under the impact of continuing population growth, will gradually affect the economic and -- more slowly -- the social bases for high desired fertility. Other obstacles, such as the motive of insurance against infant and child deaths, should weaken with general economic development and -- hopefully more rapidly -- with the provision of improved health services, water supply and sanitation. Some studies in Ghana point to obstacles specific to family planning: fear of side effects of contraceptives, and (possibly) the unavailability of contraceptives at family planning service outlets.

1.46 Lack of access may be an important factor in Ghana, especially in exploiting existing unmet need for family planning services. MOH and mission health facilities are accessible to only about 46% of the rural population. Partly as a result, supply methods are obtained (in order) from pharmacies or licensed chemical sellers, MOH hospitals and PPAG clinics; the social marketing program has only reached the larger towns, although the other commercial sources of contraceptives extend somewhat further. Clinical methods are available only in hospitals and PPAG clinics, which are mostly in larger towns.

1.47 The population strategy should also explicitly address the reasons for non-use of contraception cited (by women who would be unhappy to become pregnant) in the 1988 survey, which suggest a somewhat different balance of factors: lack of knowledge (24%), to which should perhaps be added infrequent sex (10%) and even postpartum abstinence/breastfeeding (7%); opposition (own, husband, others and religion)(11%); health concerns (10%); technology and service concerns (6%) (inconvenient to use 2%, access/availability 2%, cost 2%). Better health services (Part II of this report) will address some concerns, and better population program management some others. The task of information, education and communications (IEC) is to motivate birth spacing and/or limitation, provide further information, and provide reassurance about contraceptive safety.

1.48 An IEC plan for the public sector should be carefully developed and implemented by a variety of agencies, with coordination as needed by the council. It should cover general messages, while DANAFCO should continue its advertising campaigns with separate messages for each method. The public sector plan should include training in IEC for family planning for a wide range of health workers, as is now getting underway; communicating specific messages to particular groups -- to village women's groups, for instance, and to men individually or in groups; the phased integration of population education into various subjects in the primary and secondary curriculum, and including teacher training; and research and evaluation. The plan should target different groups in terms of their particular circumstances, making use of the suggestive data from the 1988 demographic and health survey, e.g. promoting birth spacing with younger persons and birth limitation with older ones. The Government should be as explicit as possible in explaining the program targets to the public, but perhaps stressing the service numbers more than the demographic consequences, and avoiding the danger of any impression that families might be limited in the number of children. The health benefits of family planning should be stressed. The health risks of "too young, too old, too many, too often" should be highlighted; they are substantiated by Ghanaian data. The plan should include reassurances about the safety of contraceptive methods. More education for women should be a prominent component. Implementation of the plan should involve not only MOH, but also such agencies as the Ministry of Education and Culture, the Ministry of Information, the National Council on Women in Development, and the Ghana Institute of Management and Public Administration.

(e) Training

1.49 The training plans for MOH staff which are now underway, in family planning including IEC and in IUD insertion, are adequate. The proposed training of traditional birth attendants includes some material on

program are also adequate. MOH managers need training in population program planning and implementation. The missions and population NGO managers and staff will need extensive training programs to support the recommended major expansion of their activities.

(f) Laws and Regulations

1.50 The national population council should commission a thorough review of laws and regulations, as codified and as actually implemented, affecting contraceptive use and fertility. Importation of contraceptives could be favored by a blanket waiver of duties, and the regulation of contraceptive advertising should be simplified. There may be potential for promoting delay of marriage, particularly through increasing female education; and in any case current proposals for a minimum age at marriage should be acted on, even though enforcement would be difficult.

(g) Research

1.51 Support should be provided for a diversified local research program focusing on the determinants of fertility, the determinants of becoming or not becoming a family planning acceptor, improving service delivery, and the evaluation and testing of family planning interventions.

6. Implementation Problems

1.52 Some progress has been made in MOH service delivery, but logistics (supply and transport) and supervision continue to be major weaknesses. Individual clinics, districts, and even regional stores often run out of contraceptives. For instance, one-third of the lower-level facilities surveyed in 1986 had no contraceptives, and in the first quarter of 1987, no condoms were reported in stock in 9 of 10 regional stores. Shortages have persisted to the present despite special separate supply channels for contraceptives which were intended to overcome the problem.

1.53 The major reform of MOH now getting under way (Part II of this report) should achieve some of the needed improvements in management, planning, supervision, reporting, supply and distribution which will also affect family planning. Centralization of contraceptive importation (practiced now for MOH and the social marketing program) remains efficient because of the economies of bulk supply. The delivery of contraceptives to health facilities should be reintegrated with the main MOH logistical system within the near future as that system improves, and with adequate in-service training of personnel.

7. Financial Requirements and External Assistance

1.54 The average cost of family planning may now be about $30 per active user per annum in sub-Saharan Africa, given the current preference for temporary contraceptive methods. To meet the requirements of projected gradual fertility decline, the annual cost would rise from ¢1 billion ($5.3 million equivalent) in 1985 to ¢5.5 billion ($29.0 million equivalent) in the year 2000 (using the 1988 exchange rate). A strong family planning program requires allocation of sufficient resources. Unfortunately, only a part can be recovered from users through sale of contraceptives, which will need to be subsidized for some time to come. The budget will have to [illegible] major part of costs only in the public sector, especially

salaries, etc., and even here there is room for donors to expand and improve their assistance.

1.55 The two major external donors for population activities are USAID and UNFPA. USAID's 1985-90 activities involve a $7 million project for family planning covering contraceptive supplies and logistics assistance for MOH; IEC; extensive training for MOH and other providers (to include traditional birth attendants); the social marketing program; and operational research. But in addition USAID is providing over $6 million for about 20 other activities mostly directed at population and family planning. UNFPA's 1985-89 program involves contraceptive supplies, vehicles and training for MOH; IEC; support for census analysis and surveys; assistance to population policy and population in development planning; and assistance to a leading women's group for family planning.

1.56 Given the expected completion of the current USAID and UNFPA projects within two years, USAID is planning to identify a follow-on project and UNFPA its next country program in the first half of 1989. USAID is considering focusing a follow-on project on continuing some basic support to MOH in areas not covered by other donors, providing primary commodity support to the social marketing program, and developing new initiatives in the private sector, such as with private physicians, commercial hospitals and other retail outlets. As for UNFPA, after collecting a large number of proposals, the Government is preparing a request for about $8.5 million for the second (1990-94) program, including activities in all UNFPA's major fields of interest as detailed above. Preparation of a comprehensive population strategy and plans of action as recommended above would provide the basis for MOH and other partners in the population effort to identify the medium-term needs for population support and how these will be met by existing donors and potential ones such as the Bank.

1.57 Population donors should collaborate in and if necessary fund preparation of the overall strategy and action plans, as well as individual components which result. They should freely fund recurrent and local costs, which are often the major constraint. Funding on a program basis, e.g. a time-slice of an agreed program, would be particularly helpful. Apart from continuing to finance MOH population activities and the social marketing program, donors should move into major funding of population NGOs who wish it to enable their expansion. To permit Ghana to focus its scarce managerial resources, donors should concentrate on a small number of high-priority population activities carried out on some scale, rather than branching out into many small activities each with smaller impact on contraceptive prevalence but together requiring substantial administration.

II. HEALTH

CURRENT SITUATION

A. Health Problems

2.1 Ghana has made considerable progress in increasing life expectancy at birth and in reducing mortality. Comparisons with other African countries are in Annex Table 1. Nevertheless, the available indicators point to two major issues: (i) the health status of the population remains rather poor, as evidenced by high infant and maternal mortality, high

prevalence of preventable infectious and parasitic diseases and poor nutritional status; and (ii) there is considerable inequality of health status between urban and rural areas and among regions, as well as different disease patterns.

2.2 Poor Health Status. Life expectancy at birth has increased from 47 years in 1970 to 54 years in 1985.

2.3 The crude death rate in Ghana declined early by international standards, so that recent gains have been slower: from 17 per 1,000 in the late 1960s to an estimated 13 per 1,000 now. The most recent available mortality data are for some 64,000 deaths in hospitals between 1979 and 1983. These accounted for only about 9% of deaths in Ghana in those years and probably reflect mainly the pattern of urban mortality. The leading causes of death were infectious and parasitic diseases, notably pneumonia, measles, diarrheal diseases, malaria, TB (total 27%); circulatory system diseases (12%); perinatal period diseases (9%); and respiratory system diseases (9%).

2.4 Infant and child mortality are excessive. Infant mortality remains high at an estimated 90 per 1,000 despite a decline from 133 per 1,000 in 1968. Children under 5 years old make up about 19% of the population but account for about half of reported deaths. At least 75% of those deaths are due to preventable infectious and parasitic diseases, especially malaria, pneumonia, diarrheal diseases and measles, which are particularly lethal in children debilitated by the malnutrition that is widespread in Ghana. Thus about 150 of every 1,000 children born in Ghana do not survive to their fifth birthday.

2.5 Maternal mortality is estimated at 5-10 per 1,000 births. The lower rates for births attended by health personnel (2.4 per 1,000) are offset by much higher rates for the perhaps 70% of births attended by relatives or traditional birth attendants.

2.6 Outpatient morbidity continues to be dominated by infectious and parasitic diseases (about 74% in 1987) (Annex Table 3). The leading causes were malaria (43%), upper respiratory infections (8%), and diarrheal diseases (8%). Hospital admissions are also dominated by malaria, followed by respiratory infections, anemia, infectious and digestive system diseases, pregnancy complications and emerging "modern" problems of accidents and hypertension.

2.7 Ghana remains a country with low incidence of HIV seropositivity and AIDS (276 cases reported as of December 1987). Most cases have originated with prostitutes returning from Cote d'Ivoire and remain concentrated in Eastern and Greater Accra. Sixty-one percent of cases are in females 20-34 years old.

2.8 Inequality of Health Status. The latest disaggregated data for life expectancy available are for 1968/69 and show major differences then between urban and rural areas (13 years more in urban areas) and especially among regions (64 years in Greater Accra but only 36 years in the Upper Regions).

2.9 Crude death rates by geographical area are available for 1968/69 and show substantial variations then: 14 in urban areas and 21 in rural

areas, and 8 to 10 in Greater Accra but 26 to 27 in the Upper Regions. Infant mortality varied from 41 to 106 per 1,000 depending on the region.

2.10 Substantial differences in morbidity patterns occur by region, an argument for differentiated services based on decentralized planning.

Recommendations

(a) The Government should intensify its efforts to lower mortality and morbidity, especially among children and women, by improving existing health services, giving priority to those with greater or earlier impact on mortality and morbidity, and expanding services. Examples are immunization programs, additional clinical personnel, completion of health stations and new health stations;

(b) The areas with poor health status (rural areas and the northern half of the country plus Western) should receive priority in resource allocation and service efforts; and

(c) Services should be differentiated by region according to epidemiological patterns.

B. Overview of the Health Care System

1. Fixed Facilities

2.11 In the mid-1980s Ghana's health system counted some 1,220 service facilities: public sector, 468: missions, 70, and private sector, around 680. Total bed capacity is about 18,600, with 14,000 in the public sector and 4,600 in mission facilities. There are also some 3,500 drug outlets. The modern health system effectively reaches around 65% of the population, probably about 100% of the urban population and about 50% of the rural population.

2.12 The public sector has two teaching hospitals: Korle Bu in Accra and Komfo Anokye in Kumasi. There are also 8 regional hospitals, 36 district hospitals (for 68 districts -- mission hospitals play this role in most of the other districts), 11 specialized hospitals, and 20 other hospitals. Lower level facilities (Level B) included 7 urban polyclinics, 8 urban and 66 rural health centers, 178 rural health posts and 139 clinics. At the lowest level (A) of the PHC system there were 699 community clinics. The public sector also owned all but a few of the 35 health training institutions. In recent years there has been almost no hospital construction. At lower levels the picture is little brighter. Since 1981 almost no new health centers and only up to 5 new health posts have been completed on average each year. This is not surprising since the investment budget has been dispersed in small doses: about $20,000 equivalent each over about 80 health centers and posts under construction in 1988.

2.13 The mission system consisted in 1985 of 35 hospitals and 35 clinics in all regions except Greater Accra, often in remote rural locations where there are no MOH facilities.

2.14 Low maintenance budgets for many years have contributed to the present large needs for rehabilitation of MOH facilities at all levels, including basic systems such as electricity and water supply; basic medical equipment; and simple items. Mission facilities are probably in better condition, because of bigger budgets for maintenance and external NGO assistance, but no comprehensive compilation of their needs has been made.

2.15 The private sector had 152 hospitals and clinics in 1973 but 402 clinics by 1983. No fewer than 49% were in Accra and 14% in Ashanti (essentially in Kumasi) in 1983. There were 116 private maternity homes in 1973 and 278 by 1984, with exactly one-third in Accra. By 1988 there were 359 registered private pharmacies, with 60% in Greater Accra and 24% in Ashanti (mainly in Kumasi), and 3,077 licensed chemical sellers. The rapid growth of the private sector reflected both increased training of Ghanaian personnel and an exodus from the public sector as real pay fell and working conditions worsened. Unfortunately, the private sector remains highly concentrated in the cities.

2.16 There were 18,614 beds in 1985, of which 14,230 were for adults (and children) and 4,384 for infants. MOH facilities accounted for 13,032 or 70% of the total and the missions for 4,629 or 25%. The ratio of population per bed was 684 in 1985. Population per general adult bed ranged from 552 in Greater Accra to 2,218 in Upper East.

2. Manpower

2 17 Ghana has trained fairly impressive numbers of medical personnel, including doctors (but not specialists), nurses and pharmacists. Thus in principle it should enjoy relatively comfortable ratios of population per qualified person. Unfortunately, however, the years of economic decline have led to a mass exodus of qualified people from the public sector and from Ghana altogether.

2.18 The number of doctors registered increased from 1,011 in 1976 to 1,782 in 1985. However, only about 965 doctors are currently working in Ghana, of whom 611 are in the public sector, around 80 (including expatriates) are in missions, and around 300 are in the private sector. In 1987, the overall ratio of population per Ghanaian doctor working in the public sector or the missions was 20,450. The total number of registered nurses in Ghana has risen from about 13,000 in 1976 to 20,000 in 1985. At present they are evenly divided between professional and auxiliary nurses. During 1985-87 MOH employed 10,000, while missions employed about 1,000 and the private sector about 8,000 (Annex Table 3). Of MOH's 1987 staff, 8,146 were clinical nurses. PHC personnel number about 4,000 at Level B, with another 4,000 at Level A (village level workers).

3. Utilization of Health Services

2.19 The major issue is under-utilization of services (despite significant under-reporting) -- both outpatient and inpatient services.

2.20 Outpatients. There has been a dramatic fall in reported outpatient attendances. They peaked between 10 and 11 million per year reached in 1973 and 1976 when the geographical coverage of health facilities was much lower than now. Attendances dwindled dramatically to only just over 4 million in 1985-86, reviving to nearly 5 million in 1987 (Annex

Table 4). There may be more than a million unreported outpatients; thus total attendances could be about 6 million. The number of new treatment episodes was 2.7 million, or 57% of the total, in 1987. Attendances per head per year have fallen from nearly 1.1 in 1976 to only about 0.35 in the mid-1980s. Wide regional variations in attendances per head largely reflect differences in rural coverage of health facilities. The fall in outpatient attendances, combined with construction of new facilities in the late 1970s, has translated into low workloads. In 1987, health posts averaged only 10 outpatients per day.

2.21 The major reason for the fall in attendances appears to have been the fall in standards as Ghana's economic downturn led to shortages of drugs and other supplies and lower staff commitment in face of falling real salaries. Also, greatly increased fees and drug charges as from mid-1985, without significant improvements in service, appear to have affected attendances -- temporarily in most cases, but apparently permanently at some small and more remote lower level facilities. Since morbidity has probably not declined significantly, the population has probably had recourse to uninformed chemical sellers, traditional practitioners, self-medication, or gone without treatment.

2.22 Inpatients. Statistics on reported admissions are available only from 1984, when they were 165,000, to 1987, when they had increased to 286,000 despite large increase in treatment fees in 1985. In 1987, 26% of admissions were at the two teaching hospitals, 15% at regional hospitals and 51% at district hospitals (MOH 22%, missions 29%). Actual admissions may have been 70,000 (25%) higher than reported for a total of around 355,000. With an average length of stay of about 8 days, bed-occupancy across the whole health system averaged only about 43%. Within this average, the teaching hospitals and a few regional hospitals are at 80% or higher bed-occupancy; but other regional hospitals and the district hospitals operate at low levels.

Recommendation

2.23 A major objective of health sector reforms should be to restore public confidence in the health services, through improvements in their accessibility and their quality, with a view to restoring utilization at least to past levels. This could produce attendance increases of 20% per annum for an initial period of 3-4 years. A reasonable long-term target would be one outpatient attendance per head per annum by the year 2000 (20 million attendances), implying an average annual growth rate of 10% over the period.

4. Nongovernmental Organizations

2.24 Around 300 nongovernmental organizations (NGOs) operate in Ghana, providing health, population, and nutrition services to a large portion of the Ghanaian people. In 1987 the service was valued at more than ¢2.6 billion. Of this, ¢600 million was financed through government subvention of health staff salaries, and at least half by foreign donations of food, drugs and family planning inputs. Mission hospitals now account for about 30% of hospital beds and inpatient admissions in Ghana. In 1987 they provided about 35% of outpatient care. The Catholic church is by far the largest member of the Christian Health Association of Ghana (CHAG) with 78% of CHAG hospitals and 48% of its clinics.

2.25 In general, NGOs have strengths that should be recognized and fostered. For one thing, they appear to operate more efficiently and creatively than do government agencies. With their access to external funding, they bring about a net increase in the services being provided. Further, NGOs will often work in areas in which the Government personnel are unwilling to serve.

2.26 With a few exceptions, the support, supervision, and provision of services to the village level (Level A) in NGO programs is weak. Also, too little thought is given to sustaining programs once the NGO phases out its operations.

2.27 Many NGOs have plans or desires to expand operations in both geographic and program scope. Overall, however, large expansions are not envisioned for the immediate future, and especially not new hospitals. The most serious constraint to this kind of expansion is getting trained Ghanaian staff to fill the posts in the predominantly rural mission institutions. So far the missions have been expanding their small primary health care programs only close to the hospitals and clinics.

2.28 Relations between the Government and the NGOs are quite cordial. They are not, however, particularly formal or well structured. At the national level there does not appear to be an established mechanism for dialogue, policy discussion, and coordination of activities and resources. Both there and at the regional level the quality of relationships depends a lot on personalities.

Recommendations

2.29 The Government should make special efforts to encourage the maximum possible expansion of NGO activities in health, population, and nutrition. An important example is the expansion of PPAGs (and CCG) in the population field. It should invite new international NGOs into Ghana, increase subventions to finance expanded operations, and subcontract out services to NGOs that perform more efficiently than MOH. In the case of primary health care, MOH should invite the missions to participate in joint service planning for whole districts and to take responsibility for providing the services in certain districts or large catchment areas, to reduce its own load of service expansion.

2.30 The Government should study efficient strategies and systems being employed by NGOs and adopt them for its own use where feasible.

2.31 The missions should give particular priority to expanding family-planning activities at clinic-based antenatal and child-welfare services. Other organizations should more fully integrate family planning into their MCH extension services. PHC should be expanded from the static NGO facilities. Community-based information and distribution services for both family planning and PHC should be improved.

2.32 CHAG should assess its members' needs for management assistance and financial management training, agree on a simple uniform accounting and financial reporting framework for all mission hospitals, strengthen its own PHC and financial staffing, and coordinate its role in drug supply more with the Catholic Drug Distribution Center.

2.33 Communication and coordination between government and NGOs should be formalized at both the national and regional level.

5. The Private Sector

2.34 Of the approximately 965 doctors in Ghana, about 300 are in private practice. There are several hundred private maternity homes, 359 pharmacies, and 3,077 licensed chemical sellers as of 1988. Private doctors have been hurt by the 1987 government decision to stop reimbursing public-sector employees of state-owned enterprises (SOEs) for private medical care. On the whole, other parts of the private medical sector are flourishing.

2.35 Private Medical Practices. Since 1982 there has been large-scale emigration of doctors from Ghana. The brain drain from MOH to the private sector has slowed or stopped; most government doctors practice privately as well with MOH turning a blind eye. Most private doctors work in Accra or Kumasi. Private practice in rural areas offers less competition, but the clientele is poorer and the workday longer. There is also professional isolation and accommodation is difficult. Financing for clinics is difficult to come by. Total pay for doctors in the industrial sector is significantly higher than for MOH since companies often provide free housing, a vehicle, and free fuel.

2.36 Once a doctor has started private practice there is little effort to supervise his activities. Areas of weakness include the easy availability of abortions and allegations of bribery for company medical-care contracts. Current fees are variable, and there is evidence that recommended fees are exceeded. Drugs are customarily sold with a 50% markup.

2.37 The major current problem for private physicians is the drop of income since 1987 from SOE employees, whose medical expenses are now reimbursed by their employers only if incurred at public health facilities. This, among other things, has led to an increased interest of private physicians in the possibility of health insurance.

2.38 Private Midwives. About 282 private midwives currently practice in Ghana, most being retired public-sector midwives. Many are important members of the community. This enables them to assist in a number of public health interventions. Greater Accra and Ashanti account for 46% of private midwives. By comparison, the Northern Region has only three and some other regions have none. They must register with the Private Hospitals and Maternity Homes Board, but supervision is rare. Midwives may often lack important equipment and facilities for tests.

2.39 Their current major problem is a significant drop in income from SOE employees. They would probably do better financially in rural areas where it would be acceptable and expected of them to offer curative services. They are more widespread in rural areas than doctors and are apparently increasingly eager to work there. They are also keen to pursue family planning as a new skill and can be encouraged to offer further child health services.

2.40 Private Pharmacists. Some 408 private pharmacists practice in Ghana, the bulk of them in Accra and Kumasi. The profitable private pharmacy sector continues to expand. The majority of the 30 graduates each

year from the only faculty in Ghana go into the retail/manufacturing sector, with only about 5 going into the public sector. Almost half of all pharmacists ever produced in Ghana are working abroad.

2.41 Pharmacies (and licensed chemical sellers) in Ghana frequently sell drugs theoretically available only on prescription over the counter. Antibiotics may often be sold in insufficient quantities to cure the disease but in sufficient quantity to encourage drug-resistant microbial organisms. DANAFCO is marketing contraceptives through the private pharmacies with well-organized training.

Recommendations

2.42 The Private Hospitals and Maternity Homes Board should be reconstituted and empowered to impose a levy on private practitioners, to finance regulation to ensure high quality care. Fee structures recommended annually by the Private Practitioners Association should be submitted to the Board, along with Government comments; it should set fees binding on both the Government and the profession.

2.43 The government should facilitate bank loans for building private clinics in rural areas. MOH should commission a study on whether to allow specialists in Government service to practice privately, for example in government inpatient and outpatient facilities, on a full-cost rental or income-sharing basis and with set fees for service.

2.44 The Government should actively encourage postgraduate training of private practitioners as well as medical specialists. It should reach a compromise with private physicians over reimbursement for SOE employees.

2.45 The government should actively encourage rural private midwife services. It should encourage private midwives to assist in MOH antenatal clinics, to offer services in government facilities on a rental basis, and to offer a wider range of services.

2.46 The Government should negotiate fees annually with the profession. It should permit reimbursement to employees and wives of employees of SOEs of the private midwife's fee for deliveries.

2.47 The Pharmacy Board should be strengthened to ensure the maintenance of professional standards in the trade. Pharmacists in government service should be offered inducements (as are doctors) to stay out of private practice. Training output should be expanded. The Government should encourage private pharmacists to compete to offer services in government hospitals.

MAJOR ISSUES

A. Organization and Management Issues

1. MOH Headquarters Level

2.48 Without a radical restructuring of the system of administration and management of MOH at the central, regional and district levels, and the

appointment of a core group of qualified managers to key positions, no significant improvement can be made in the delivery of health services, either curative or preventive.

2.49 Almost no rational management procedures are used in the day-to-day running of the Ministry, with ad hoc decisions and processes being the norm, unplanned use of staff time being the practice, and a lack of any management information system or even records of decisions being endemic.

2.50 There is almost a complete separation between the technical and the administrative wings of the Ministry. Medical professionals either claim the right to control, or have been required to be involved in controlling, all parts of the health system, whether this relates to statistics, budgets, use of foreign aid, transportation of supplies, or the administration of hospitals and health centers.

2.51 Nobody has a clearly defined role and job description, and administrative and organizational guidelines are virtually nonexistent. Thus the role and functions of different managers are dependent more on the personality of the incumbent than on his or her position.

2.52 There are far too few key players in the management of the whole health system, and thus decision making on a wide range of different areas is concentrated in a few people's hands. Very often this concentration poses a work load so heavy that, no matter how competent and committed a person may be, he or she inevitably becomes a bottleneck.

2.53 Horizontal communication is lacking at all levels of the system. Central HQ divisions have their own staff at the regional, district, and even the health center levels, with vertical reporting. The result is lack of integration among the main PHC initiatives, poor allocation of resources, and duplication of effort. An example of such a duplication occurs in medical supplies. Many of the central divisions maintain their own supply networks for drugs, contraceptives, vaccines, etc. The multiple channels are a waste of time, transport facilities, and personnel.

2.54 Responsibility for the central supply system is divided, causing further waste. For example, the central stores are partly controlled by the supplies division in the administrative wing of the Ministry, partly by the pharmaceutical division in the technical wing, and partly by UNICEF.

2.55 Planning is almost nonexistent. The planning division at HQs has only two posts filled, and embryo units exist only in two regions. It also suffers a problem in common with the statistics unit in that its key positions are supposed to be filled by medical doctors, who are (1) not available and (2) not needed as administrators. It does little but carry out the Ministry's budget functions as there is no budget division.

2.56 In fact, since 1982 the Ministry has been instructed to keep the number of technical people in administrative positions to a minimum. Despite this, medical degrees are often insisted upon as requirements for administrative and technical posts where non-medical skills (statistical, planning, and administrative) combined with a basic medical literacy seem to be what is required.

2.57 Resources are heavily weighted toward hospital care as opposed to PHC. The dominant roles doctors play in the whole system is a major reason for this. Most doctors by their very training not only see health services in terms of curative activities, but also require relatively expensive facilities in which to practice. The public has a similar perception.

2.58 Decentralization of health administration has never taken place, even though it was the cornerstone of the 1982 PNDC Health Policy Paper. This leads to one of the major problems of health system management: an almost complete separation between policy rhetoric and implementation. For example, PHC coverage is targeted to reach 80% of the population by 1990 but reaches only about 50% of the rural population at present. No indicators are developed to enable the achievement of the policies to be monitored. New policy statements are prepared every four or five years, independent of previous statements and their achievement.

2.59 Of course, monitoring is not possible if statistical and data systems are not operating effectively. Currently the Center for Health Statistics (CHS) is responsible for collecting only limited data from the health centers and hospitals. Reporting is substantially and variably incomplete. Institutions outside the public sector are only partly included. What data CHS has is neither analyzed nor disseminated, nor is it used systematically for policy making or management. The last comprehensive annual health report was produced in 1967.

2.60 Supervision is also a serious weakness. For a long period there was almost no supervision or in-service training of Level A and B staff. Though Level B training is now beginning to take place on a large scale, supervision in solving medical, supply and administrative problems remains inadequate or nonexistent.

2.61 There seems to be a lack of effective personnel policies. A serious shortage of qualified administrative and managerial personnel occurs at all levels. For example, half of the most senior HQ administrative positions have been vacant for years. Moreover, existing qualified personnel are concentrated in Greater Accra (where half of all Government doctors are posted) and other more desirable centers. Far too many non-medical non-technical staff have been recruited.

2.62 Many problems are of long standing. For example, in budgeting, no norms or indicative planning targets have ever been used (except for one year in 1978), and thus the budgets presented to the Ministry of Finance and Economic Planning in past years have remained more wish lists than reasonable justified requests.

2.63 The role the donors themselves are playing in compounding existing problems cannot be ignored. For example, over a period of one year four donors will independently be carrying out their own health sector studies (World Bank, WHO, UNFPA, and USAID), each asking the same questions to the same group of overworked officials. Similarly, each donor prepares its program according to its own priorities and its perception of where the problems lie, and each presses MOH to give its program the highest priority. Finally, some donors even establish their own parallel systems, or build up and create new roles for institutions contrary to national policy.

2.64 The holding of the June 1988 Health Symposium was a welcome indication that the Government was aware of the seriousness of the problems in the health sector and was determined to take corrective actions. At the end of 1988, a MOH committee working with management consultants has finalized plans for a new structure of MOH, with corresponding new functions for its HQ and regional units and job descriptions for the new senior posts.

Recommendations

2.65 MOH should undergo a major reorganization as of the beginning of 1989. It should be organized into functional units. A PHC division should be established to develop policies, targets, and indicators, and to monitor their implementation; a hospital division; a central supplies division responsible for the procurement of all medical supplies, materials, and equipment; a division for planning, statistics and aid coordination; and one for administration and finance. Responsibility for manpower and training should be unified. The detailed structure, and the number of senior posts, should fit as far as possible the uniform model for ministry organization (one chief director supervising three directors with defined areas of responsibility) adopted by the Committee of Secretaries in September 1988.

2.66 The Ministry HQ should divest itself of all operational and control responsibilities apart from the procurement and distribution of pharmaceuticals and supplies, and the management of foreign aid. In addition, it should be responsible for policies; planning; formulation of budgetary, costing, staffing, and other physical norms; allocation of resources among regions and inter-regional questions; development of performance indicators; monitoring and evaluation; national studies; statistics, legal affairs; and public relations.

2.67 An additional Deputy Secretary should be appointed to the Ministry to cover fully the wide range of subject matter. Thereafter one of the two should be responsible for all health policies and for the regions, while the other should be responsible for supplies and procurement issues, foreign aid, and public relations.

2.68 Each unit should be headed by a manager who can be drawn from a wide range of disciplines. There should no longer be a division between technical and administrative wings, as each unit should have managerial, technical and supporting administrative staff. Medical/technical staff should not fill purely administrative positions. Crash courses in public health management should be organized for administrative personnel involved in management positions at the center, regions, and districts, also for medical doctors interested in administrative work.

2.69 Priority should be given to restaffing the planning division. At least twelve more professional staff need to be recruited, of whom four should be relatively senior and qualified. A first set of annual and rolling medium-term health plans should be prepared by mid-1989.

2.70 Project implementation and management capabilities need to be strengthened substantially through delegation of responsibility to named project directors for all major projects (including foreign-aided ones) and through an increase in the numbers and managerial orientation of staff.

However, the vertical control of HQ managers should not be recreated in the new structure through control of important donor resources; the relevant regional managers' agreement should always be sought before MOH enters into commitments with donors to carry out activities in particular regions.

2.71 There needs to be much greater consultation between HQ and the regions than in the past. One specific way to foster this would be to hold quarterly meetings scheduled well in advance. Another is to ensure that, as first happened in 1988, the regional managers are fully involved in the budget process both within MOH and with the Ministry of Finance and Economic Planning. A third is that in future no HQ unit should organize or carry out activities within regions except at the invitation or with the agreement of the regional managers concerned.

2.72 There is an urgent need to establish a management services unit within HQ to develop and implement effective administrative and accounting systems. It should establish appropriate staffing norms and levels for each functional unit; prepare job descriptions for all key categories of staff; and draft operational manuals and handbooks of administrative procedures.

2.73 All health statistics should flow to the Center for Health Statistics, which should be strengthened substantially to analyze the data it receives. Every year it should publish and distribute a detailed compilation of health statistics.

2.74 An annual health report should be published and distributed to key Government personnel and the media, and to regions, districts, and health centers. In addition, a quarterly in-house newsletter should be produced and distributed to all professional and technical staff. This newsletter should discuss current policies and strategies, and also report on achievements from the periphery.

2.75 The MOH budget should be allocated among regions by a standing committee including regional directors, and according to explicit objective criteria. A similar process should be used within regions to allocate the region's budgets among the districts.

2.76 There needs to be active and regular supervision and monitoring of one level by the next. It is important that one official at the district level be responsible for all supervision of each particular health center. MOH should draw up specific schedules and checklists for supervision and implement them as soon as possible, including requiring written reports on all supervision visits.

2.77 Incentives to reward good performance should be introduced. These should be based on a well-designed management information system, a set of performance indicators and target levels for them. Results should be compiled and fed back rapidly to each unit and its peers, to promote competition among regions, districts, health facilities etc. in meeting their targets. Awards for good performance can take many forms, e.g. cash, benefits in kind, priority for receiving better equipment to work with, study tours and other training, publicity, medals or certificates, etc., and be provided both to service units and to individuals. Up to 1% of the budget should be earmarked for such awards.

2.78 To attract managerial personnel of sufficiently high caliber to the regions and districts, housing and other benefits and performance incentives should be made available.

2.79 If the management reform is to have a real chance of being fully implemented major changes should also take place in the processes of agencies outside MOH. MFEP should provide the Ministry with minimum figures for releases for nonsalary recurrent expenditures, and let the MOH decide how these will be used, perhaps within general guidelines. Aid donors should agree to channel their funds and supplies through the newly established management structures. Finally, the legal framework should be adjusted to reflect the new structures.

2.80 The reorganization proposals being finalized in late 1988 recommended a structure for MOH which would be an improvement over the present lack of clarity and appeared workable. Some key issues remaining to be resolved related to the number of Deputy Secretaries; the qualifications and experience needed by the chief director; to whom the regional directors should report; and the staffing patterns and numbers at HQ and regional levels. But the biggest unresolved issue was how to ensure that the new structure would involve a greater degree of decentralization than is currently the case.

2. Regional Level

2.81 There are two major issues at the regional level: (i) the weakness and lack of authority and resources of the regional health administrators; and (ii) the powers proposed for Regional Hospital Boards under new legislation.

2.82 In the ten regional health administrations, there is a shortage of personnel trained in administrative skills. The health information system is weak. The vertical chain of command, with its corresponding allegiances, remains strong. The result is failure of horizontal communication. The regional budgeting process is not related to program needs (there is no bottom-up planning and budgeting from the district level). Ghana's administrative regulations severely limit the freedom of regional authorities in personnel matters. Ghana's financial regulations and the system of paying salaries centrally and allocating drugs without payment give little flexibility in resource allocation to the regional authorities, although they can move amounts around within sub-items (e.g. maintenance) but normally not between items (e.g. from travel to maintenance). They also have little role in especially the implementation of "their" investment programs. The existence of multiple supply lines results in unnecessary overlaps and duplication in manpower and cost.

2.83 The Hospitals Administration Law 1988 provides for the establishment of Regional Hospital Boards, responsible for the financing and management of all curative services in the region, and reporting directly to the Secretary for Health. The intention is to bring businesslike attitudes and movement toward eventual financial self-sufficiency to the hospitals. But the change is also likely to intensify the bias toward curative services in the whole health system. Not only will the board deny the regional director the chance to allocate total resources between curative and PHC activities in his region, but they could also create new pressure groups [illegible] of additional resources to the hospital sector. On the

other hand, though the regional director will not control the boards, he will still have authority for the allocation to them of budgetary resources for both recurrent and capital items.

Recommendations

2.84 The regional health directors should take the main operational responsibility from HQ. To do this they will require substantial strengthening and support. They should have four deputies with units and responsibilities matching the HQ setup: one for PHC; one for hospitals; one for administration, planning, budgeting, staffing and statistics; and one for supplies and pharmaceuticals. All supplies, from whatever source and for whatever purpose, should pass through a single system. The directors should be provided with adequate managerial mechanisms, staff, financial resources and supporting services to carry out their increased responsibilities. These should include planning, programming, and evaluation; management of the human, financial, and material resources at the regional and district levels; supervision of district health authorities, district hospitals. and DHMTs; in-service training; and promotion of PHC services. Specific proposals for further decentralization within existing administrative and financial regulations should form an important part of the final reorganization proposals. Beyond this, MOH should consider proposing to the central agencies responsible that it be made a pilot ministry for decentralization of administration and finances that they may be considering for introduction government-wide.

2.85 Implementation of the new Hospital Administration Law should begin as MOH intends, with the teaching hospitals. Competent managers responsible to the boards are already in place. The law should be amended so that health centers and posts do not fall under the authority of the hospital boards, but are controlled by the regional directors through the District Health Management Teams (DHMT). The boards should manage efficiently the resources allocated to them, not decide what amounts they will receive.

2.86 Decentralization should take place in all regions at the same time so that HQ can discontinue its operational responsibilities at one time. Obviously some regions will require more support than others during the initial two- to three-year transition period.

2.87 The regional directors should be of the same rank and status as the HQ directors. They should report directly to one of the PNDC Deputy Secretaries. Special rewards should be given to those directors who exceed targets or indicators in their regions. It is also essential that regional directors have authority over all staff in their region, including appointment, transfer, dismissal, and promotion within national guidelines. The regional director should also have some authority for allocation of budgets among different programs within the framework of national policies and plans, and should control his own capital budget.

2.88 The regional director and his four deputies should be managers (as with the HQ directors). They can be drawn from medical doctors, pharmacists, public health nurses, hospital secretaries, and administrators. Where the managerial positions are not filled by doctors, there will have to be doctors who can provide, in a timely fashion, continuous

technical advice on medical problems. In the longer run such medical advisors should be available in the districts too.

B. Service Issues

1. Coverage and Access

2.89 There are two main issues: (i) total coverage, and hence access to health services, remains low; and (ii) there is great inequality of access, both between urban and rural areas and (especially) among regions.

2.90 Alternative ways of looking at current health system coverage yield basically similar results. First, hospitals are unevenly distributed. There is no hospital at all in about 10 districts, one in about 40 districts, and two in 10 districts, while 7 districts have three or more hospitals. Second, nearly all communities down to 2,000 population, but perhaps only 20%-25% of those with 1,000-2,000 population, have a Level B health facility. The rural population beyond about 8 km from such centers is effectively unserved, since the village level of PHC reaches only 700 communities presently (about 10% of villages with population between 200 and 1,000), and with uncertain effect. This would put effective service somewhere around 65% of the total population, taking in people living close to population centers. The 1978 PHC target of 80% national coverage by 1990 is out of reach.

2.91 While the urban population may be regarded as having reasonable access to fixed facilities, overall coverage of the rural populatic (is only about 50%. Furthermore, this low overall percentage coexists ith huge regional disparities, from only 11% in Northern to 100% in Greater Accra and Volta (Table 8). In fact, the whole northern half of the country and Western Region are seriously underserved with health facilities at present.

Recommendations

2.92 Three recommendations flow from this analysis:

(a) a reasonable target would be to achieve 80% coverage of PHC by the year 2000, and universal coverage by 2010;

(b) from the viewpoint of equity, service extension and investment (both completions and new facilities) directed at extending coverage should focus first on the underserved regions. A reasonable target would be to ensure that each region has rural population coverage of at least 50% by 1995 and 80% by the year 2000. These targets should be translated into specific allocation decisions, otherwise they will remain aspirations on paper only. As a first step, the decision to allocate the next 100 new health stations at the rate of 10 to each region should be changed to put all 100 into the underserved regions; and

(c) within regions, selection of sites for new facilities should continue to be based on maximizing the numbers who will benefit, in particular by selecting first the largest unserved communities; distance from existing health facilities should be given

2. Primary Health Care

(a) Objectives and Strategy

2.93 The original PHC concept paper, drawn up in 1977, set two key objectives for 1990: (i) to provide access to scientific health care for 80% of the population of Ghana; and (ii) to deliver services to effectively attack 80% of the disease problems afflicting Ghanaians. These would be achieved through both environmental and personal health measures, with the latter targeting areas such as maternal and child health and communicable diseases. To carry out the policy would require focus on services as against fixed facilities, on preventive and promotive services as against specialized curative services, and intersectoral coordination and community involvement as against isolated and "top-down" health care delivery. Actions would be needed to decentralize health service administration, to set up local health councils, to reorient and redeploy health personnel, to train community-level health workers on a massive scale, and to develop the usual range of PHC programs and services.

2.94 The basic issue is that for years there has been a wide gap between rhetoric about, and implementation of, PHC. Official policy is based on PHC, but rural population coverage remains only 50%, with only 10% of communities over 200 having trained health workers. PHC receives only 23% of MOH's recurrent budget. Lack of transport prevents outreach activities. Drug supplies are intermittent, and public confidence and service utilization are low. There are only partial plans, based on unrealistic targets, for the expansion of PHC. Investment in PHC hardly produces any completed health facilities. PHC is stuck while pressures are mounting to spend even more on higher-level hospitals.

(b) Organization and Management

2.95 The issues here are: at regional level, lack of a PHC structure and potential for further neglect of PHC relative to hospitals; at district level, weaknesses of the district health management teams (DHMTs); and in the system as a whole, no supervision or support by one level of another.

2.96 Regional Level. There has hitherto been no one at the regional level with full-time responsibility for PHC. The recent Hospital Boards Law may make matters worse by creating a strong authority not under regional health management control which will be responsible for both hospitals and fixed PHC facilities but not other aspects of PHC.

2.97 District Level. In the PHC strategy, the district is supposed to be the key management level. It should be the first level for planning, budgeting, and financial control; data collection and analysis; and supervision and training of Level B personnel. The district health management teams are the key organizations, but several constraints prevent them from being fully operational. Only about a third of districts are staffed with a full-time medical officer. In others, the medical officer in charge of the district hospital, has to apportion his time between the two jobs. Teams lack adequate transportation. They have no imprest account -- indeed no PHC budget. District political authorities are not well aware of the multisectoral implications of the PHC strategy. They tend to perceive PHC as strictly a concern of MOH.

Table 2: REGIONAL INDICATORS OF HEALTH PROBLEMS, UTILIZATION AND SERVICES

Region	Share of Population 1987 (%)	Share of Outpatient Morbidity 1987 (%)	Outpatient Attendances per Head 1987	Rural Population Coverage 1985 (%)	Population per Hospital Bed 1985	Outpatients per Doctor 1987	Outpatients per Clinical Nurse 1987	Population per Community Health Nurse 1987
Greater Accra	11.9	14.4	0.47	100.0	422	2,716	537	4,719
Ashanti	17.1	22.0	0.43	42.6	744	7,838	912	13,506
Brong Ahafo	9.8	13.1	0.44	28.3	891	14,722	1,753	11,418
Central	9.2	8.5	0.30	77.3	515	10,763	522	8,666
Eastern	9.6	14.6	0.63	49.7	565	14,677	593	5,686
Northern	9.7	4.2	0.09	10.8	1,173	5,697	199	8,664
Upper East	6.3	1.0	0.12	36.5	1,157	6,360	243	11,156
Upper West	3.6	0.5	0.18	18.4	636	9,716	156	11,279
Volta	13.7	14.3	0.24	88.5	722	11,639	529	8,493
Western	9.2	7.4	0.38	25.9	846	9,579	623	11,763
TOTAL/AVERAGE	100.0	100.0	0.35	46.0	684	9,825	586	8,343

Source: MOH

2.98 For a number of reasons, including slack management and a pervasive lack of transport, supervision of each level by the one above it is almost nonexistent at present. The same goes for the technical and logistical support and in-service training that should be provided. The system of referral of cases to higher levels when needed is also virtually nonexistent.

2.99 Level B. This is the first contact point of the population with professionals from the MOH or private organizations. It is the first referral point for village-level workers. The PHC strategy calls for every community of 200 or more to have a Level B facility within eight kilometers. Level B facilities include a wide range of institutions: urban polyclinics, urban and rural health centers, health posts, and clinics. These vary greatly in tasks performed, numbers and training of staff and population covered -- from a few hundred to several thousand.

2.100 Level A. Basic health services at the community level are to be provided on a part-time basis by a team composed of traditional birth attendants (TBAs) and community health workers (CHWs). About 2,000 TBAs and just over 2,000 CHWs have been trained, about 10% of those originally estimated to be required for coverage of all villages with a population of 200 or more. The effectiveness of TBAs and CHWs is heavily dependent on four inputs: involvement and support of the community, ongoing and continuous monitoring and supervision, regular procurement of drugs and medical supplies, and proper remuneration or incentive. Each of these inputs has been wanting in Ghana up to now.

(c) Programs and Services

2.101 Specific program objectives and targets, set in 1978, flow from the overall target of 80% coverage by 1990 and are ambitious and implausible. Maternal and child health (MCH) services and the expanded program on immunization (EPI) are discussed below; drugs and nutrition are discussed separately.

2.102 Maternal and Child Health. MOH's maternal and child health (MCH) services are delivered in a little over 400 facilities by 1,900 MCH/FP personnel. MCH service coverage is about 50% of pregnant women for antenatal care, 20% for supervised deliveries, and 50% for child welfare clinics, but low for immunization through MCH services. Family planning is integrated with MCH and is offered in about 80% of MCH facilities. Despite these advances, the services remain a long way short of their coverage targets for 1990; the staff require in-service training; equipment needs replacement; and supplies are not yet sufficient and regular.

2.103 Immunization. Reported morbidity from the main vaccine-preventable diseases was about 48,000 in 1987, with measles accounting for two-thirds of the cases and the rest essentially divided between pertussis (whooping cough) and tuberculosis. Trends since 1980 show significant reductions in morbidity due to measles and pertussis, but a significant increase in TB. Under-reporting is believed to be very substantial, however. Coverage surveys indicate that an average of 20% of children in relatively favorable districts were fully immunized, and the variation by district was from 7% to 66%, by 1986/87 after two years of mass campaigns. The dropout rates between shots are high: in 1986, third doses against DPT (Diphtheria Pertussis Tetanus) were only about 23% of first doses, against

polio about 22%, and against tetanus, the crucial second doses were only about 29% of first shots. Preliminary results from the 1988 demographic and health survey show that, for the one-third of children with health cards, immunization coverage varied from 58% to 86% for individual antigens; but if those without cards were unimmunized, the population coverage would only be 19% to 28% by antigen, and presumably a considerably lower proportion would be fully immunized. Waste of vaccine continues to be substantial, despite a relatively well-functioning if insufficiently extensive cold chain. Coordination of MCH/FP and Epidemiology staff has been inadequate but efforts are being made to improve it. A new national coverage survey is planned for early 1989.

2.104 Ghana's immunization target is to have 80% of children aged 0-2 fully immunized against the six EPI diseases by 1990; yellow fever has now been added and immunization against meningitis in some areas. There is also a target of immunizing 80% of pregnant women against tetanus by 1990. The EPI plan for 1988-90 includes a budget for vaccines and capital items; but transport for vaccination teams is a constant problem, and the recurrent costs of EPI (especially fuel and the feeding of workers) may not be adequately funded to even approach such ambitious targets within such a short time period. The conduct of immunization is divided between fixed facilities and mass campaigns; the balance varies substantially among regions. Mass campaigns can raise coverage rapidly; but they also strain logistical and personnel resources. There are reports that "campaign fatigue" has already begun to set in, threatening the sustainability of EPI.

(d) Information, Education, and Communication (IEC)

2.105 The issues in IEC have been the lack of a viable strategy and resource starvation. The upshot has been scant impact in the 1980s.

2.106 In the late 1970s, IEC activities relating to population, health, and nutrition came to a virtual standstill. No significant progress has been made since. The little activity now taking place has scant impact. It is usually limited to lectures given at clinics. There is a shortage of qualified manpower. Transportation and basic equipment are in short supply. Staff have little grounding in relevant techniques. Visual aids and other materials are rarely available in such amounts as to reach beyond district -- or even regional -- offices and are often inappropriate to the target audiences.

2.107 The potential of a wide range of vehicles for dissemination of information -- modern mass media, political channels and the traditional media -- has not been exploited.

Recommendations

2.108 It is now time for the Government to reaffirm its commitment to PHC and to provide the necessary management and resources for its improvement and expansion, so that decent public health services can be provided to a very large proportion of Ghana's people before the turn of the century.

2.109 The original orientation and policy remain sound. The missing elements to date are program impetus and management, resource allocation,

expanded coverage of services, reorientation of training programs, redeployment of personnel, and strategies at the community level.

2.110 The proposals for a PHC division at MOH HQ, the head of which will be personally responsible for overseeing the implementation of the PHC program; and for the regional directors to be responsible for PHC, assisted by a regional PHC coordinator as one of their deputies, should greatly strengthen the program. The recent Hospital Boards Law should be amended so that PHC is not placed under the new Regional Hospital Boards but under the regional director. At the district level, the DHMTs should be strengthened to take charge progressively as intended. In particular, the Regions should divide up the regional budget according to a formula so as to give each district a budget of its own. From this, the DHMT should take a portion for itself for management expenses, with the balance for the district health services themselves. The Controller and Accountant General should provide DHMTs with spending authority and an imprest account, now there are many treasury officers in the districts. Finally, DHMTs should be provided with adequate transport. The teams should be headed by full-time district health officers (i.e. who are not simultaneously running the district hospital) and who need not be doctors, but should be natural leaders provided with appropriate training, which will help them to overcome the problem of acceptance by regional and district government and service heads. This post should now be formally established in the civil service structure, a long-overdue change.

2.111 The expansion of service coverage should focus in the next few years on Level B of the system -- that between hospitals and the village. The respective roles, coverages, and staffing patterns of the different district health institutions should be redefined. Services at Level B should be expanded through a combination of (i) outreach activities and (ii) renting or new construction of simple (5 rooms or fewer) health facilities. Existing underutilized personnel should be reassigned, and more trained as required.

2.112 Community-level (Level A) strategy can be divided into two parts. The program of training TBAs in villages of 500 or more population in basic modern MCH/FP practices, on a gradually increasing scale and with proper supervision and kit replenishment, appears well-designed and, albeit premature (Level B training should ideally be digested first), can proceed in 1989 to take advantage of available donor funding. But the best way to meet additional health needs at the community level should be carefully evaluated before embarking on any additional programs. Such an evaluation should include a thorough assessment of needed resources, identification of necessary community input, and a gauging of how adequately the program will meet major community health needs.

2.113 Comprehensive plans for PHC expansion should be drawn up. Current 80% coverage targets should be postponed to the year 2000 in many if not most cases and realistic intermediate targets set. Achieving even these will require substantial increases in resources and more effective management will also be in order. Planning at the district level should be done jointly with missions operating there.

2.114 A strategy for extending maternal and child health (MCH) services, and greatly increasing their coverage, should be devised. This should be based largely on outreach from Level B facilities (using the

small motorcycles to be ordered shortly), extension of the network of such facilities and completing the spread of family planning services to all MCH clinics. In the first phase, the main push should be through outreach from Level B. The TBA program will be a growing supplement to this outreach. In a later period, villages will be reached through the TBA program and possibly other channels too.

2.115 Unless the 1989 coverage survey shows remarkable progress since 1986/87, the national target for immunization coverage in 1990 should be reduced to 40% of children aged 0-2 years fully immunized; resources should be reallocated as necessary so that no region is below 20% fully immunized by then. Focusing efforts on increasing the proportion of second and third DPT and polio shots may be the most effective way of reaching these targets. Mass campaigns should continue through 1990. They should perhaps be moved into the dry season and avoid farming-season peaks. However, planning should begin now for strengthening static and outreach modes, as well as IEC, so that the momentum can be maintained after 1990. Suitable national targets for 1995 (again subject to the 1989 survey) could be 60% and for the year 2000 80%, with no region lagging more than 20% behind.

2.116 The Government should give priority to the IEC strategy being promoted by UNICEF, which has a promising approach to the main issues: it has as its underpinnings people's perceptions of their own needs; thus it works from the village level up. The training program in IEC techniques for MCH/FP which has been drawn up should also go forward, but the content material should not just consist of the messages MOH wishes to transmit, but should reflect the needs of the target audience (perhaps identified by research under the UNICEF-assisted strategy).

2.117 The Government should consider reviving and upgrading the National Audiovisual Service to become the production unit for all training support materials.

3. Inputs

(a) Manpower

2.118 There are four main issues: (i) responsibility for manpower and training is dispersed, there is no plan for manpower requirements in relation to service targets and hence there is no systematic manpower development; (ii) the geographical distribution of clinical personnel is highly skewed, giving rise to great inequities in the access of different population groups and regions to their services; (iii) MOH employs far too many people in the lower grades; and (iv) enrollments in the different pre-service training programs are unbalanced in relation to needs, and the curricula need extensive revision, while in-service training programs have until recently fallen far short of needs.

2.119 Manpower planning. MOH has no service targets at present, which makes manpower planning almost impossible. The dispersion of responsibility for manpower and training adds to the problem. The aims for staffing are couched mainly in terms of attempting to fill establishment numbers approved long ago under very different conditions. No approved staffing norms for different facilities exist. An attempt to develop some in 1988 produced numbers inflated far beyond present staffing and available financial resources. Part of the problem is an attempt to relate staff

numbers either to population or to items like numbers of beds. No account appears to have been taken of current or realistic projected workloads in deciding on either clinical or PHC staffing. This is also true of the illustrative manpower projections made for a health manpower study in 1988. However, the recent review of the MCH/FP program has begun to change this approach. Finally, since there is no manpower plan, there is also no well-based plan for manpower development to guide decisions on the types, numbers and capacities of training institutions required.

2.120 Distribution of clinical personnel. Doctors are concentrated in a few urban areas and at higher levels of the health system. About 80% work in urban areas (479 public sector and virtually all private doctors), especially in Greater Accra which has 44% of all doctors. The two teaching hospitals have very large medical staffs: Korle Bu had 229 doctors (24% of all doctors in Ghana) and Komfo Anokye 84 (9%) in 1985. The figures mean that one-third of Ghana's doctors (53% of MOH doctors) served only 9% of the nation's outpatients and 26% of its inpatients in 1987.

2.121 The population-per-doctor ratio ranged from 5,764 in Greater Accra to as many as 63,095 in Northern Region. The overall population per nurse ratio was 1,669 in 1987, with a regional range from 866 to 3,973. Nurses per bed averaged 0.98, with a range from 0.69 to 2.24. The huge ranges do not closely reflect differential coverage of facilities and workloads. Rather, they point to misallocation of staff among regions.

2.122 Overstaffing at lower grades. MOH employed about 38,000 people in 1987. This includes a vast army of about 22,000 non-technical staff on both permanent and temporary appointments, including both nonqualified ward orderlies and far too many cleaning, catering, orderly, messenger and security staff. It is estimated on the basis of studies of the civil service generally, and of a number of MOH units, that the staff (especially the non-medical non-technical categories) could be reduced by about one-third (say, 8,000) without adversely affecting services delivered. Such a reduction could save about ¢800 million a year in 1988 prices, money that could be used for improving services. This level of savings is equivalent to one-third of actual nonsalary recurrent expenditure in 1987. MOH has hardly started its redeployment effort, only discharging some over-aged persons and a few of those identified by the studies, and calling for volunteers for redeployment, with the current exercise (numbers affected unknown) to be concluded by March 1989.

2.123 Training programs. MOH's 25 schools have produced almost 4,000 professional and technical personnel in the last five years. About 1,800 were for PHC, mainly nurses and environmental sanitation personnel. Physician training produced 243 graduates, but attrition rates are high and specialist trainees sent abroad at great Government expense hardly ever return. Production of clinical nurses is large at 500-600 per annum. MOH continues to produce about 300 professional nurses annually -- of which it has no present need, except possibly to offset attrition -- and is committed on present policies to employing them all, while the training of auxiliaries has been discontinued. Curricula were last revised in the 1970s and are lengthy, often theoretical, and mostly not related to Ghana's health problems and to current job descriptions. The output of middle-level technical manpower training is inadequate. In-service training of clinical personnel is almost nonexistent. The same was true of PHC personnel until a one-year universal training program started in late 1988.

Training institutions are short of resources, qualified instructors, textbooks and other instructional materials.

Recommendations

2.124 A MOH HQ unit should unify responsibility for all manpower questions, including the planning of training and all training institutions. A manpower plan should be prepared based on present staffing and workloads and realistic future service targets. It should cover all the important types of clinical and PHC manpower and assume gradual productivity increases over time.

2.125 The Government should set targets each year for making staffing ratios and workloads of doctors and clinical nurses more even among regions. The posting of staff completing their training (to increase staffing), and attrition elsewhere (to let it decline), should be accompanied by planned transfers, both from higher to lower levels of the system and between regions. The target should be to increase the number of doctors in underserved regions (Brong Ahafo, Central and Eastern) by 50, and the number of clinical nurses in Ashanti and Brong Ahafo by 300, by the end of 1990. This would transform the situation. To help achieve this, housing investment should be focused on doctors' bungalows and nurses' accommodations in these regions for a couple of years.

2.126 MOH should reduce its non-medical and non-technical staff by one-third (about 8,000) over the years 1988-90.

2.127 On the basis of the manpower plan, a training plan should be prepared. One important component should be training for regional management teams. For district health management teams, training should move beyond that already given to practical problem-solving. Planning should begin for a major expansion of the pre-service training of PHC personnel. This should include updating of the curricula. In-service training plans of adequate scale to follow the 1988/89 training of all Level B staff should also be prepared. Government expenditure on overseas specialty training should be discontinued. The Government should prevent training in Ghana in the four main specialties -- medicine, surgery, pediatrics, and obstetrics/gynecology -- from breaking down for lack of qualified faculty and deteriorated conditions at the teaching hospitals. At the same time, it should keep the training relevant to Ghana's problems and avoid the resulting qualifications being an easy passport to emigration. The Government should review the numbers and types of nurses being trained in relation to present stocks and future demands. Thus the intake of trainees to become clinical professional nurses should be drastically reduced to at most match attrition, with reallocation of large numbers of training places to PHC. The plan should provide for the required expansion, conversion or possibly closing down of training institutions, and the training and retraining of tutors.

(b) Drugs

2.128 The central issue is that MOH's present drug-supply system is completely failing to meet the country's needs. In summary, the problems are as follows. Demand estimation is not based on needs or actual consumption. The procurement process is cumbersome and can take up to four years from tender to arrival. Even the Central Medical Store (CMS) has only 50%

of essential drugs at any one time. Allocation of available items to health institutions is arbitrary. Stockouts are frequent everywhere. Expiry of drugs is an all-pervasive problem. MOH drug pricing is not rationally based on costs. Facilities are not ideally suited for storage and security. Equipment is inadequate and not properly used. Inventory management needs considerable improvement. Not surprisingly, users' confidence in the system is extremely low.

2.129 The system of demand forecasting has been purely ad hoc. It was based on past-year procurements plus some arbitrary percentage markup. It did not take into account past consumption figures, stock absorption in the pipeline, nonsupply of indents, or changes in demand patterns. Estimates of the annual need or demand for drugs could plausibly vary from ¢2 billion to as much as ¢5 billion. A task force has just drawn up a new estimate based on morbidity and attendance data.

2.130 The procurement process is cumbersome, with long procedural delays. It takes as much as four years between the date of tendering and the ultimate arrival of stores at CMS. Most of the time is consumed in such actions as estimate preparation, award of contract, and especially in port clearance in obtaining financial guarantees and opening letters of credit. In many cases, by the time all the procedural formalities are complete, the bid validity period has expired. Drugs often arrive at the CMS with only a brief shelf life remaining.

2.131 The usual result is oversupply of some items and an extreme shortage of others. For example, at CMS the end-December 1987 stocks were equivalent to 5 months of issues at the average rate in 1987, which is reasonable; but 108 out of 188 items were out of stock, while supplies of 12 were equivalent to more than a year's estimated use; and a large proportion of available items had expired or was close to expiry.

2.132 The distribution system is ad hoc and discretionary. The value of allocations to the regions in 1987 varied from ¢91 to 460 million; on a per outpatient basis the range was from ¢157 to ¢1,220. At each level allocations are on a first-come, first-served basis, which normally puts distant facilities at a disadvantage. Even in the Ashanti Region, however, stocks at the end of 1987 were equivalent only to one month's issues from CMS for that region. The oversupply and extreme shortage problems at CMS are mirrored at lower levels, so that supplies often do not correspond to what health institutions need. Intermittent supply leads to expensive multiple trips by the institutions to regional stores in search of more stocks.

2.133 The problem of expiry is all-pervasive. In mid-1988, at all storage points from CMS downward, large quantities of stocks had either expired or were due to expire soon. Expired drugs worth ¢0.9 billion (equivalent to almost half of MOH's 1988 drug budget) have been destroyed recently following an inventory audit down to hospital and polyclinic level.

2.134 MOH drug pricing to patients is based loosely on private sector-retail prices, which range up to 240% of c.i.f. values for imported drugs. The margin over MOH costs varies widely, and the prices of many common items are unnecessarily high.

2.135 Though storage space is adequate at CMS and at regional stores, they are not ideally suited for storage of drugs and security of stocks. Housekeeping is poor. Storage and material handling equipment is inadequate at central and most regional stores. Whatever is available is not properly used. Cool rooms and flammable-materials stores are either nonexistent or inadequate in most places.

2.136 Inventory management, stock control, and stock accounting need considerable improvement. Stocks are not arranged sequentially, making it difficult to practice the first-in, first-out system. Store ledgers are not properly maintained. Expiry dates are not flagged. Monitoring of conditions in the field by senior staff is rare.

2.137 No organized drug-information system exists to provide unbiased medical and therapeutic information to the medical profession. Polypharmacy, overprescribing, and misprescribing are emerging as problems.

2.138 Drug enforcement is weak. There is only one inspector for the entire country to cover 20-plus factories, hundreds of retail pharmacies, and all drug imports. Regional pharmacists, though seconded to assist the Pharmacy Board for regional inspection, find hardly any time to provide such support.

2.139 The mission health facilities obtain drugs through their own supply systems, in an amount currently estimated at over ¢470 million ($2.5 million) per year. There are at least five sources of mission drugs. However, mission drug services are not presently in a position to provide any active support to the public-sector distribution system.

2.140 The local pharmaceutical industry can supply the most commonly used essential drugs, dressings, syringes and intravenous fluids. In-house quality-control facilities are not adequate in most units, with the exception of the state-run GIHOC. Private-sector capacity utilization is now 40%-45%. Fuller capacity utilization is constrained by lack of some matching equipment and tight bank credit. Import tariffs on finished drugs are 15%, plus a special 10% protective duty on antimalarials and analgesics, but no duties are charged on imports of raw materials for drug manufacture. The industry is competitive for many common items, and Government policy is to buy locally whenever the industry can supply.

2.141 A set of drug system reform proposals is being drafted as of the end of 1988 for early enactment. On the basis of the new demand estimate, procurement lists have been drawn up for 1989 to cover both annual needs and restocking of the pipeline at all levels, and separating international from local procurement. A therapeutic manual will be prepared to guide prescribers at district level and below.

Recommendations

2.142 Some elements of the needed reforms have been introduced in recent months. Further important reform actions are being drafted and should be implemented in early 1989. To tackle the difficult issues of drug procurement and distribution, the Government has drafted a national drug policy. Though it lists appropriate major objectives, the strategy for achieving them needs to be spelled out clearly. Also, certain aspects,

such as the proposed rationalization of local production and centralized procurement of raw materials, need further analysis.

2.143 Essential drug lists and a national formulary have been prepared and were introduced in June 1988. They should be immediately implemented and strictly enforced in MOH procurement.

2.144 A physical inventory of stocks at all levels from polyclinics and district hospitals on up has been completed and the Government has destroyed ¢0.9 billion worth of drugs found to be deteriorated, obsolete, or expired. Further smaller quantities of expired drugs found at Level B institutions should now be destroyed too. To limit the recurrence of this waste, MOH has been issued a special permit to clear drugs from the ports immediately on arrival, with financial settlement later. It should warn health institutions about batches of drugs expiring by quarter in 1989 (this information is available from the audit). Finally, it should introduce monitoring of expiry dates at all facilities.

2.145 The new task force estimate of demand for drugs, based on morbidity and attendance patterns, should guide all future domestic and international procurement. In 1989, in addition to meeting the annual need, the pipeline of stocks at all levels should be rebuilt from its present 4-5 months to 9 months consumption, so as to prevent widespread shortages of essential items in future. Distribution plans, possibly including the use of prepacked kits for individual health institutions, should be drawn up in time to ensure that the supplies reach their intended destinations promptly.

2.146 Drug purchases by individual health institutions from MOH stores should be put on a cash-and-carry basis starting in early 1989. To finance their purchases, health institutions should receive a seedstock of drugs equivalent to about 40% of total needs in 1989, and retain the whole proceeds of their drug sales to patients to permit them to replenish supplies and thus finance themselves the remaining 60% of needs, including drugs prescribed for patients exempt from paying under present cost-recovery policies. MOH staff should be treated in future like other civil servants, paying for their purchases and being reimbursed by their own Ministry. To launch the system, the overall drug revolving fund should be sufficiently capitalized. The Ministry of Finance and Economic Planning has agreed in principle that MOH may retain 100% of drug sale fees (instead of 50% hitherto) for use to replenish drug supplies and clear all medical items from the ports, but this needs to be formalized.

2.147 Drug prices should be rationalized on the basis of a formula covering reasonable costs, with a view to passing on the benefits of economies to patients. Estimates show that margins of 37.5% above delivered-to-CMS costs of domestic drugs, and 57.5% above CIF prices of imported ones, would suffice. Such rationalized prices would bring substantial savings to patients on many common items, which could stimulate increased utilization of services.

2.148 It is estimated that the potential financial savings from the whole set of reforms could reach over 40% of the current drug budget, i.e., perhaps ¢800 million per annum in 1988 prices.

2.149 Existing facilities should be refurbished. They need cool rooms, flammable-materials stores, appropriate receiving and dispatching bays, and adequate storage and material-handling equipment.

2.150 Over the medium term, the various aspects of the national drug policy should be phased in over the period according to an agreed implementation plan. A two-way information-flow system between CMS and the periphery should be established. Inventory control, stock monitoring, and demand estimation should be computerized. A national manpower plan for pharmacists and dispensary technicians should be developed based on standardized deployment norms. After computing manpower needs for the private and public sectors, the Pharmacy Board should agree with the University of Science and Technology and Kumasi Technical Institute to increase the intake of students to bridge the gap.

2.151 Over the long term (1990-95), the local pharmaceutical industry should where competitive be encouraged to develop to produce commonly used large-volume drugs from the essential drug lists. Drug regulation and enforcement should be strengthened and a full-fledged quality-assurance program instituted.

(c) Transport and Communications

2.152 Mobility is essential for Level B staff, who are supposed to be involved in preventive and outreach activities, and for officials at all levels to supervise the level(s) below them. However, despite the provision of hundreds of expensive 4-wheel vehicles to MOH over the years, lack of maintenance, failure to repair broken-down vehicles, and a consequent lack of mobility have been constantly recurring problems. An inventory of MOH vehicles (nearly all 4-wheel) in 1987 showed only 167 out of 660 roadworthy, 212 worth repairing, 18 doubtful and 263 dead. A number of new vehicles has been received in 1988. The inventory has been updated in late 1988 and MOH is seeking estimates of repair costs for those vehicles worth saving.

Recommendations

2.153 Pending development of an outreach strategy and supervision plans, a working estimate could be that each health center/post should have four small motorcycles (for a four-person team to conduct outreach) and perhaps some bicycles; each DHMT, one small four-wheel truck and three motorcycles; and each regional office, one four-wheel-drive vehicle and four motorcycles (as well as trucks to transport goods from Accra). It is assumed these vehicles would be kept roadworthy throughout.

2.154 The existing vehicles worth saving should be repaired before any substantial new purchase of 4-wheel vehicles is contemplated or financed by donors. Any new four-wheel vehicles should be purchased with a five-year maintenance contract with the vendor. To provide mobility particularly to Level B staff, a large number of small-engined motorcycles and perhaps some bicycles should be purchased. Each of these two-wheel vehicles should be allocated to a particular official, who would be allowed to use it for his private as well as official purposes so long as he keeps it well maintained.

2.155 The need for vehicles can be reduced somewhat if other forms of communications are available. Unfortunately the telephone system is likely to remain unsatisfactory for some time. Radio links from HQ to the regions have just been installed. Radio links from the regional office to each DHMT, and from the DHMT to each hospital and health center/ post in its district, should also be installed to reduce the need for vehicle trips. Relatively cheap solar-powered transceivers should be adequate.

C. Financial Issues

1. Health Expenditure

2.156 Total health expenditures in Ghana consist of MOH expenditures, NGO expenditures, and private expenditure on private for-profit care, both modern and traditional. A rough maximum estimate of total health expenditures in 1987 would be as follows: MOH recurrent spending of ¢5-5.5 billion and capital spending of ¢2-2.5 billion (including external assistance but excluding payment of arrears), NGOs ¢2.5 billion, and private for-profit (estimated from early data from the Ghana Living Standards Survey) ¢11 billion. Total health expenditures may thus have been at most ¢21.5 billion, or 2.9% of 1987 GDP.

2.157 MOH health expenditures were budgeted at an expected 1.21% of GDP in 1988 (Table 3). MOH's share of the total Government recurrent budget was 9.8% for 1988 (11.8% of operational expenditures). MOH's share of the total Government capital budget was about 6% in 1988. Per capita MOH expenditures in 1988 were budgeted at ¢816, equivalent to US$4.29. The share of capital expenditures in MOH's total expenditures (recurrent plus capital) was 24.6% in 1988 including external assistance.

(a) MOH Recurrent Budget

2.158 The major recurrent budget issues are: (i) MOH's share of the total Government recurrent budget; (ii) high and unmanaged hospital expenditures; (iii) low budget allocations for PHC; (iv) low budget allocations for travel/transport and maintenance; (v) shortfalls of actual non-wage recurrent expenditure from budget allocations; and (vi) areas of potential savings.

2.159 MOH's 1988 recurrent budget share of 9.8% would be adequate through 1990, except for the one-time need to rebuild the drug pipeline at all levels of the system and provide cash against 1990 orders in transit.

2.160 MOH does not compile and analyze hospital service and expenditure data, nor does it actively manage such expenditure to achieve cost-effective service. There is little or no training in hospital administration. There is a wide variation among hospitals in the available physical indicators -- not only "fixed" items such as beds per doctor and staff per bed, but also workloads which depend on the number of outpatients and in-patients. Furthermore, mission hospitals tend to have tighter staffing, heavier workloads, better maintenance, and hence higher productivity of both staff and other resources and lower unit costs than do those run by MOH.

Table 8: HEALTH EXPENDITURES: SHARE OF GDP AND BUDGET, PER CAPUT AND REAL 1980-1988

A. EXCLUDING PROJECT AID

Year	% of GDP	% of Budget	Real Expenditures	Per Head	
				Nominal	Real
			(1984 C Million)	(C)	(1984 C)
1980	0.95	6.43	2,772.55	38	258
1981	0.71	6.09	1,988	46	179
1982	0.6[illegible]	6.09	1,627	47	141
1983	0.35	4.38	875	54	74
1984	0.84	8.50	2,270	184	184
1985	1.07	8.74	3,052	314	240
1986	1.15	8.28	3,423	445	280
1987	1.05	7.93	3,273	575	241
1988	1.21	9.01	3,992	816	284

B. INCLUDING PROJECT AID

Year	% of GDP	% of Budget	Real Expenditures	Per Head	
				Nominal	Real
			(1984 C Million)	(C)	(1984 C)
1986					
1987	1.2	7.4	3,835	674	282
1988	1.4	8.5	4,542	928	323

Source: MOH; MFEP

2.161 The MOH budget continues to be directed predominantly at curative care for the one-third of the population living in urban areas. The relatively low and constant recurrent budget share of PHC of about 23% is a cause for concern. This is much too low and slow-growing to permit the rapid expansion of PHC recommended earlier in this report.

2.162 Travel/transport and maintenance/repairs/renewals have each been allocated only about 2% of the recurrent budget in 1987 and 1988 (Annex Table 6), both very low shares in the face of the need for mobility of MOH staff, supply difficulties, and the generally poor state of repair of the equipment and vehicles owned by MOH.

2.163 Another major problem is the continuing shortfall of actual expenditures on most nonsalary items from budgeted amounts. Table 4 below summarizes the position by level of the system for 1987.

Table 4: Budgets, Fund Releases, and Actual Expenditures on Nonsalary Recurrent Items, 1987

	Financial Encumbrances as % of Budget	Actual Expenditures as % of Financial Encumbrances	Actual Expenditures as % of Budget
MOH system (excl. teaching hospitals)	90	62	56
Korle Bu	96	68	65
Greater Accra Region	36	48	17

2.164 The overall conclusions are two. First, there are serious shortfalls on crucial items, viz. drugs, travel/transport, and maintenance/repairs/renewals. In 1987 the shortfall was a little over ¢1 billion, or about one-third of budgeted nonsalary recurrent expenditures and about 15% of the total MOH recurrent budget. Second, higher levels of the health system do better than lower levels. The problem for PHC appears to be more one of achieving expenditures than one of obtaining releases.

2.165 The source of many health-sector problems is Ghana's and the MOH's budgeting and expenditures system. MFEP budget guidelines have often been late, although recently the situation has improved. MOH budgets are drawn up by the regions, not the bottom spending units. No agreed physical, staffing, consumption, or cost norms have existed until the 1989 budget exercise, and the new ones have needed revision or refinement. The unrealistic regional requests have been ignored by both MOH HQ and MFEP. MFEP still involves itself in the determination of about 150 items of the MOH recurrent budget as well as in the capital side. The budget is merely a paper figure, however, except that personal emoluments are paid in full. Everything else depends on releases of funds to MOH by the Comptroller and Accountant General, acting on MFEP's behalf. Drastic restrictions on total amounts, and a freeze followed by progressive loosening through the year, have been common patterns. The quarterly ceilings are often notified late to MOH HQ and passed only slowly to lower levels. Districts have little authority to incur expenditures and little control of funds. The spending authority lapses at the end of the current quarter, leaving little time to

make purchases and payments. Finally, each purchase of any size requires multiple approvals. It is no surprise therefore, that there are such important shortfalls of actual nonsalary expenditures from budget estimates.

2.166 There are also areas of potential savings. Tighter management of hospital expenditures, savings in drug supply costs, and reduction of MOH non-technical staff have already been discussed. Tighter medical/technical staffing norms, taking account of present underutilization of staff, offer further savings. Contracting out vehicle maintenance will prove cost-effective per roadworthy vehicle. Higher allocations for maintenance of buildings and equipment will postpone rehabilitation and replacement expenditures. Finally, MOH institutional feeding is very costly and some of the food is reportedly diverted by staff.

Recommendations

2.167 MFEP has recognized the justified requirements of the priority sectors (which include health) in 1989 and will also try to protect their allocations in case of overall resource shortfalls. This is a most welcome development. In light of reasonable budget norms and the work on drug needs estimates, MOH's recurrent budget is being increased from ¢9.8 billion in 1988 to ¢15.8 billion in 1989 (a 61% increase), with a wage bill of ¢6.5 billion (41%), items 2-5 ¢8.3 billion and subventions ¢1.0 billion (Annex Table 6). This would give MOH almost a 14% share of the total Government recurrent budget in 1989. This is an appropriate level.

2.168 The proposed MOH HQ hospitals division should carry out a study of hospital costs and efficiency. On this basis, it should set targets and monitor performance in areas such as staffing, drug costs, and institutional feeding as well as total and per-patient expenditures. Productivity increases should be built into the targets. At a later stage, a study of costs for different departments will permit tighter management. MOH should study the management practices and systems used by the mission hospitals. Training in hospital administration should be expanded.

2.169 Total PHC expenditure (other than drugs) should be increased substantially, say, by at least 25% in real terms in both 1989 and 1990. This is consistent with likely absorptive capacity. For 1989 this is implicit in the approved budget. The PHC share of the recurrent budget has only risen slightly to 24% in 1989, but should be raised substantially in 1990. The allocation of the money by program should depend on serious service planning, but in the near term EPI, ORT and MCH are likely to be the most cost-effective users. The additional money should go almost entirely into nonsalary items.

2.170 Travel/transport expenditures will double at least in 1989, and their share of the budget should rise further to at least 3% in 1990, as a new outreach strategy takes hold and supervision is reinstated. Most should go for PHC. Maintenance expenditures will almost double in 1989 but still have only a 2% share; this should rise to at least 3% in 1990 as absorptive capacity increases; a large proportion would naturally go to hospitals.

2.171 MFEP should commit itself to provide MOH with certain minimum quarterly amounts for nonsalary recurrent items, to permit serious service

planning. MOH would favor PHC in their use, according to general guidelines agreed with MFEP. Spending on PHC and drugs should be protected from overall resource shortfalls.

2.172 MOH should achieve substantial savings in 1989 through reduction of non-technical staff, more efficient drug supply, and discontinuing institutional feeding. To deal with this last matter, staff should be detailed full-time for a year, and specific dates within 1989 set (and adhered to) by which institutional feeding will be contracted-out or discontinued, for example from May 1 at the teaching hospitals, from September 1 at regional hospitals and from January 1, 1990 at all district hospitals. Additional savings should be sought over the period by measures discussed above: tighter hospital management, tighter medical/technical staffing, contracting out vehicle maintenance and higher allocations for maintenance of buildings and equipment.

(b) Public Investment Program (PIP)

2.173 For 1988, the MOH capital budget allocation was ¢1.6 billion in Ghanaian resources, with external assistance expected to bring the total to about ¢2.4 billion (about US$13 million). Total spending on 20 health projects was projected at ¢14.0 billion in the 1988-90 PIP (Annex Table 7). However, actual expenditures from the domestic capital budget have been more than twice the allocations in both 1987 and 1988. While this can be interpreted as evidence of higher Government priority for health, the returns on so much investment -- in terms of increased health service delivery -- appear to have been modest because few of the large number of ongoing projects are ever finished.

2.174 There are five investment program issues: (i) poor definition of needs, project content and costs; (ii) overall size of the program; (iii) priorities, including new construction and the balance between PHC and hospitals; (iv) lack of effective monitoring and control of expenditures; and (v) poor implementation, arising partly from dispersal of available resources.

2.175 Since there are no effective estimates of health needs and service targets, well-justified investment programs have not been drawn up. Furthermore, since there have been no accurate cost estimates, project costs to reach the objectives could not be defined. Instead, most of the PIP currently consists of a large number of areas where expenditure is desirable; amounts for these "projects" which make up an uninformed judgment of relative priorities; and within each "project" an allocation to each of a number of facilities which is notional either because it is so small (as with PHC completions) or because it is a lump sum not related to the objective of completing something specific within a specified time period. Recently, however, studies have been undertaken which permit identification of some of the highest priority projects and their costs.

2.176 Health received ¢14.0 billion or 3.9% of the 1988-90 public investment program, with a build-up from ¢2.5 billion in 1988 to ¢4.8 billion in 1989 and ¢6.7 billion in 1990. The total size of the program appeared reasonable at the time in relation to both MOH's current implementation capacity and the volume of financing expected to be available. The foreign exchange cost of the program was estimated at 54%. Two projects -- health stations rehabilitation and completion, and district

hospitals rehabilitation -- were included in the PIP core program; they accounted for 23% of total health project costs for 1988. This selection of priorities was and remains appropriate.

2.177 Primary Health Care. Investment needs for PHC comprise three kinds of spending for facilities: rehabilitation of existing facilities, completion of those under construction, and new facilities. A survey of 175 Level B facilities (nearly all of them health centers and posts) suggests that rehabilitating them all will cost about ¢1.3 billion in 1988 prices, at unit costs of ¢3 to ¢18 million (average ¢7 million) depending on the facility size. To rehabilitate all Level B facilities at these costs could cost up to ¢1.9 billion in 1988 prices. Completion of about 125 facilities currently at various stages of construction will cost about ¢2.8 billion. Constructing new facilities is estimated to cost from ¢19 million (US$100,000) for a 5-room health post (providing mainly curative and MCH services) up to ¢93 million (US$500,000) for a 30-room health center.

2.178 Increasing rural coverage from 49% (in 1985) to the Government's target of 80% will require increasing the number of rural facilities from the current 400 to 1,150. About 125 are currently under construction, leaving 660 new ones required (Annex Table 8). Unless renting and construction by local communities are pursued vigorously, the whole cost will fall on MOH (with external assistance where possible). Even if only 5-room units are built, the total cost of achieving 80% rural coverage would be up to ¢13 billion. Total PHC investment needs -- rehabilitation, completion and new construction together -- are then up to ¢18 billion. This is equivalent to US$97 million.

2.179 The implications for PHC investment strategy and facility design are, first, concentrate resources on a small number of projects so something can be finished; second, rehabilitation is cheap and quick, but not all essential, and does not extend geographical coverage; third, completions are relatively quick, cheap if more advanced and smaller facilities are emphasized, and significantly extend coverage; and fourth, new facilities significantly extend coverage, especially if small and cheap.

2.180 Hospitals. MOH's proposals for the 1989-91 PIP include completing the rehabilitation of all district hospitals in four years and of all regional hospitals in five years, and a restricted set of works at the teaching hospitals also in five years.

2.181 A recently completed hospital rehabilitation study estimates costs at no less than ¢6 billion (US$32-33 million equivalent) for Korle Bu, ¢2 billion for Komfo Anokye, ¢1.5 billion for the largest regional hospital and ¢1.9 billion for 5 district hospitals in 1988 prices. The implied rehabilitation cost per bed varies between ¢1,847 and ¢9,473. Assuming the hospitals studied are typical and the rehabilitation works well-chosen, the cost for rehabilitating the whole system of MOH general hospitals (teaching, regional and district) would be ¢28.9 billion in 1988 prices. This is equivalent to US$155 million. It it turns out that district hospitals require equipment more than civil works, the requirement may be lower, but this needs study as a matter of priority.

2.182 The basic question for PHC program size is how soon the Government wants to achieve its population coverage targets. At the annual rates

of spending in the 1988-90 public investment program, PHC rehabilitation and completion together will take 12 years, but even if MOH must finance only 5- room new units achieving 80% rural coverage will take 32 years! As for hospitals, the question is how long rehabilitation should take. At present spending rates it will be seven years for district hospitals, 15 years for regional hospitals and 19 years for teaching hospitals.

2.183 The other aspect that needs to be considered is MOH's implementation capacity. The increase in investment in the 1988-90 PIP, from ¢2.5 billion in 1988 to ¢4.8 billion in 1989 and ¢6.7 billion in 1990, appeared feasible then. But even this stepping-up of the current investment program, e.g., letting and properly supervising a larger number of contracts, would require a substantial build-up of MOH's small and weak central project implementation unit and regional capabilities. The experience of 1987 and 1988 shows that spending money is not so much the problem; contractors will work and submit vouchers for payment in large amounts. The problem is getting value and results for money, which requires much more MOH input, monitoring and supervision than hitherto.

2.184 The content of the health PIP is for the most part consistent with the priorities of Ghana's overall PIP in emphasizing rehabilitation and completions. Six directly PHC-related projects (excluding district hospitals) make up about 37% of projected expenditures (and 39% including solar power for health stations) and hospital rehabilitation about 32%. About 9% is for institutional strengthening and logistics. New construction is proposed of 100 new health stations (40% of the existing number), but with only half in underserved regions and with an unnecessarily large and hence expensive design. The new project for solar power for health stations (for refrigerators) will be subjected to a feasibility study. The new hospital projects raise some serious questions. Most of a proposed group of new and expensive tertiary-level centers (radiotherapy, neurosurgery, cardiothoracic) for Korle Bu has been combined with rehabilitation of operating theaters and installation of Ghana's first intensive care unit into one project costing 11% of the whole 1989-91 PIP; given the huge rehabilitation needs at Korle Bu and everywhere else, the proposed expenditure on new units in 1989-91 seems excessive. Finally, a proposed new regional hospital at Cape Coast with an enormous total cost of ¢9.1 billion (of which ¢850 million in 1989-91) would <u>prima facie</u> unbalance the entire investment program in health (see also para 2.192).

2.185 There has been a complete failure of expenditure monitoring and control in the case of the health PIP in both 1987 and 1988, despite the large numbers of signatories needed for each individual contractor's voucher. Expenditures from the domestic capital budget have been more than twice the budget allocations in both years. On the one hand, this can be interpreted as higher Government (at least MFEP) priority for health. On the other, the returns on so much investment -- in terms of increased health service delivery -- appear very modest. The contractors who received ¢5 billion have been the main beneficiaries. MOH regional directors play little role in "their" investment program; MOH HQ does not add up the vouchers it is approving, nor does it know whether any facilities were completed.

2.186 A major reason for the lack of impact of even such large expenditures is their dispersion. Two striking features of the program are the very large number of individual items (215 in the 1987 capital budget)

and the very small and declining average amounts of Ghanaian resources allocated to each one (¢4 million budgeted, down from ¢5 million in 1986). There are works on 125 facilities in the 1988 allocation for the "project" to complete health stations. There has been little attempt to focus resources on completing those projects nearest completion. MFEP budgetary policies as well as political pressures have hitherto favored the proliferation of schemes, and the dribbling of available resources over them to keep them in the PIP albeit never completed.

Recommendations

2.187 Work is required in two areas to improve the basis for PIP project and cost definition. In hospitals, the recent study needs to be evaluated and at least a second round (of district hospitals) studied. Given the magnitudes involved, it is essential to determine priorities for investment at each hospital -- especially and beginning with Korle Bu -- and to draw up a phased program on that basis. The phasing would have to reflect the realities of MOH's future capacity to speed up contracting and implementation of rehabilitation works on a large scale at up to 46 hospitals. MOH headquarters and regional staff should form teams, pending the creation of the new regional hospital boards, to determine priorities according to objective criteria.

2.188 The proposed health PIP for 1989-91 totals ¢17.3 billion (in 1988 prices), through virtually equal expenditures each year. This total takes reasonable account of both MOH implementation capacity and foreign and domestic financing possibilities. In real terms, it is a little higher than envisaged in the 1988-90 PIP, but still realistic. MOH's share of the 1989-91 PIP would be a 4.4%, up from 3.9% in 1988-90. The health PIP could be increased by up to 10% if resources become available, with the increase devoted to PHC as discussed below.

2.189 The priorities for the next few years should be: (i) full financing for PHC rehabilitation, completion, equipment and (with a cheaper design) new health stations -- details below; (ii) full financing for hospital rehabilitation -- details below; (iii) financing for rehabilitation of the drug supply infrastructure; and (iv) institutional strengthening and logistics for MOH. The new projects in the PIP, for Korle Bu, Cape Coast and solar power for health stations appear to have low priority. In any case, any new project should have a satisfactory feasibility study before implementation.

2.190 The recommended PHC investment strategy, taking account of both needs and implementation capacity, would:

(i) rehabilitate what is essential at all 250 existing facilities over five years: concentrate resources and finish 50 per year, at an annual cost of, say, about ¢250 million in 1989-93;

(ii) complete all 120-odd health stations under construction over five years: concentrate resources and complete all 5- and 11-room facilities (about 30 per year) by 1990 (annual cost about ¢600 million); scale down and complete the remaining facilities (about 20 per year) over three years (annual cost, say, about ¢350 million in 1991-93); an independent review of cost to completion of each project may be desirable; and

(iii) build, have built, or rent 660 new facilities by the year 2000 (66 per year starting in 1991) (annual cost up to ¢1,300 million after 1990), with the five least covered regions (Northern, Brong Ahafo, Western, Upper West, and Ashanti) brought to 50% coverage and the rest to 80% coverage by 1995. These should have no more than 5 rooms and use a standard cheap design along lines recently drawn up by MOH; the medical facility need cost only ¢8-10 million (1988 prices), with the total cost including housing under ¢20 million.

The total cost would be ¢850 million per year in 1989 and 1990, rising to up to ¢1,900 million per year in 1991-93 and up to ¢1,300 million per year in 1994-2000. The PHC share of the 1988-90 health PIP was 54%; but in 1989-91 it is projected to be only 45%. There is no obvious reason for this reduction, and there are justified additional PHC investments to be made. Provided MOH demonstrates its ability to complete projects with the resources so far included in the PIP, additional PHC investments should be financed in the outer two years.

2.191 Attaining the highest returns from all this investment will require concentrating PHC investment resources so as to finish individual facilities in no more than two years, and wherever possible in one year. MFEP should agree to this greatly preferable sequencing of works. Political pressures may be eased if there is some ongoing work in each region, and if priority is given to health stations that are near completion, will serve the largest number of people and/or are in presently underserved regions. The regions' estimates indicate that work could be completed at 38 sites in 1989, and projects for completion in 1990 in underserved regions be funded properly in 1989, for only ¢325 million. Finally, insofar as accommodation is a key constraint to the needed reallocation of doctors to underserved regions, the housing investment included in the PHC program should be focused in the next two to three years on constructing, completing and renovating doctors' bungalows.

2.192 For hospital rehabilitation, the recommended investment strategy would complete rehabilitation in all MOH general hospitals by the year 2000. Within this timeframe, relative patient loads both now and as PHC coverage expands, and rehabilitation costs per patient, suggest that priority should go first to district hospitals, next to teaching hospitals and last to regional hospitals. It is therefore recommended to complete rehabilitation in district hospitals by 1995 (i.e. in 7 years), in teaching hospitals by 1998 (10 years), and in regional hospitals by the year 2000 (12 years). The total annual cost through 1995 would average ¢3.3 billion, although it might take a while to build up in line with growing MOH implementation capacity. If MOH wishes to accelerate district hospital rehabilitation more than this, it can be done to some extent, although the burden of contracting and administration should not be underestimated. But adjustments should then be made to the other hospital rehabilitation programs to remain within the same total financing requirement. The proposed new project at Korle Bu needs a proper feasibility study and reconsideration of its scale and/or phasing. The proposed new regional hospital at Cape Coast requires a careful feasibility study comparing rehabilitation and new construction before entering into any commitments, in view of the underutilization of the present hospital (for whatever reasons) and the enormous cost of the proposed new one.

2. Health Financing

2.193 The overwhelming majority of public sector health financing comes from the budget, as discussed in the previous section. However, cost recovery has been making an increasing contribution since 1985. Recently some degree of Government approval has been given for proceeding with a health insurance scheme. Substantial external assistance has been committed to the health sector, but so far disbursements have been very modest, largely, but not entirely, because of MOH's weak implementation capacity.

(a) Cost Recovery

2.194 There are three issues: (i) the level of cost recovery; (ii) the fee structure; and (iii) retention and use of the monies recovered.

2.195 Significant fees only began to be charged from July 1985. Collections have risen rapidly, from ¢27 million in the first half of 1985 to ¢866 million in 1987. As a proportion of the MOH recurrent budget, they were 13% in 1987, and as a proportion of the nonsalary part of the budget, 28%. Given the degree of underspending on nonsalary items in 1987, cost recovery was equivalent to 15% of actual recurrent expenditures and about 38% of actual nonsalary expenditures. This was a very important accomplishment even by international standards.

2.196 The full potential recovery from existing fees has not yet been realized. A study has confirmed that Korle Bu is not generating as much revenue as it should. A special inquiry into Greater Accra Region increased revenues almost 50% in mid-1987. Revenue per outpatient in 1987 by region ranged from ¢56 to ¢293. And cost recovery from drugs was only about 34% of the value of drugs issued.

2.197 Fees for most services are still well below cost. Inpatient unit costs at some government hospitals studied in 1988 were 5-6 times fees collected, and outpatients were subsidized by up to 50% (at present inflated prescription costs). Missions have higher fees for some but not all services, but lower costs, so they subsidize less than MOH. Fees at MOH urban health stations ranged between 35% and 70% of unit costs per outpatient visit, and at (rural) health posts between 22% and 33%. Inflation continues to erode the real level of fees for services (prices have at least doubled since mid-1985, when the present fees were introduced); drug prices are presumably more flexible.

2.198 There is evidence of some disincentive effect of fees on utilization after mid-1985. Outpatient attendance for medical care declined by up to a half in certain remote rural health posts in the Volta regions and has recovered but little since. This is important since these are some of the poorest clients, deserving high priority in PHC programs, especially as these expand in the future. There is some evidence that inpatient charges, especially if the hospital stay is prolonged, may be difficult to bear. However, elsewhere a temporary drop in attendances after mid-1985 has been reversed. The proportion of patients who cannot pay for MOH drugs was said to be below 5% by staff at several institutions.

2.199 The fee structure has been well designed on the whole. It consists of fees for services and payment of the full cost of drugs. Fees

for outpatient consultations rise progressively for higher level facilities, and for more complex procedures/treatments. The question about fee levels is their overall affordability in remote rural areas, as noted above. The major questionable exemption is that MOH employees and trainees do not pay. MOH employees received up to 40% of all drugs issued at some hospitals studied in 1988, suggesting substantial abuse of their privilege. There is increasing dependence on drug sales as one moves down the system: from 35%-43% of revenues at the teaching hospitals to 80%-90% at Level B facilities. Cost recovery performance thus depends crucially (about 75%) at present on whether drug sale revenue is in fact collected and accounted for.

2.200 Part of cost recovery proceeds is retained by each institution to supplement inadequate budgetary funds. Fund retention also serves as an incentive to collection. The present retained proportions are 50% for teaching hospitals, 25% for other hospitals, and 12.5% for Level B facilities. Technical- and political-level approvals are required before the funds can be used for recurrent inputs not provided within the MOH system. The rest of MOH's share of 50% is retained by higher levels (HQ or region). Much has been used for drug purchases. MFEP has agreed in principle that MOH may in future keep 100% of cost recovery proceeds from drug sales, subject to guidelines on their use.

Recommendations

2.201 MOH should try to maintain cost recovery at the 15% of recurrent expenditures reached in 1987, at least through 1990, via tighter management of collections (e.g. closing loopholes at Korle Bu) and through raising or possibly even indexation of service charges (unchanged since 1985). Cost recovery should be extended by putting drug sales at all levels on a cash-and-carry basis, and MOH staff should be required to pay for drugs, as early in 1989 as possible. To limit the impact of charges on the utilization of services, remote areas or classes of facility, and specific services to be encouraged, should be left more heavily subsidized than elsewhere when fees are raised generally. Examples of the former might be health posts, and of the latter institutional deliveries, either all deliveries or at least high-risk cases. The rationalization of drug prices and better prescribing practices should both bring significant savings to individual patients, which should also stimulate utilization and reduce the loss of total revenue. MOH retention of 100% of drug sale proceeds, starting at the beginning of 1989, should be formalized.

(b) Health Insurance

2.202 There are two issues: (i) the organization and management of a scheme; and (ii) design questions remaining to be resolved.

2.203 The proposed health insurance scheme should not be run from inside MOH, but by a separate (probably new) institution headed or at least closely advised by persons with training and experience in insurance. Any start-up actions by MOH should be directed to setting up such an institution and handing over responsibility to it as soon as possible.

2.204 The studies done to date have identified a number of potentially insurable groups, and examined some of the design parameters involved, e.g. numbers of persons and types and numbers of treatment episodes to be

covered, and their financial implications. However, further work is required inter alia on the actual costs of different procedures, pharmacy prices of drugs and prescription practices. Care should be taken not to set up a scheme with its own health facilities or that would promote a system of health care paralleling and impoverishing that of MOH. To reduce the problem of rapid cost escalation experienced where service providers and patients perceive health care as free, there should be deductibles and co-payments. The scheme should concentrate on covering the costs which really burden both individuals and the budget, viz. expensive inpatient treatment; small and predictable costs should not be covered. Finally, there should be no subsidization of the scheme from general tax revenues, i.e. employers' plus employees' contributions should cover the full costs of the scheme.

III. NUTRITION

3.1 In Ghana, as in other low-income countries, malnutrition takes its greatest toll on young children and pregnant and nursing mothers. The problem is actually a combination of two interrelated phenomena: protein-energy malnutrition and associated micronutrient deficiencies among the vulnerable population groups, and preharvest hunger affecting predominantly the rural population. The problem is serious and getting worse.

3.2 The major issues are: (i) levels of malnutrition; (ii) nutrition strategy; (iii) program impact: (a) data problems and lack of evaluation, and (b) coverage of target groups; and (iv) inputs: (a) budget, and (b) training of personnel.

A. Levels of Malnutrition

1. Protein-Energy Malnutrition

3.3 Per capita caloric availability in the country averaged roughly 95% of the national needs from 1961 to 1976, then dropped steadily to roughly 65% in 1983, and thereafter increased regularly. By contrast, average caloric intake for adults ranges from 67% to 90% and for preschool-age children 40% to 73% of estimated caloric requirements.

3.4 A 1986 national nutrition survey found that 58% of children aged 0 to 5 fell below 80% of the internationally used U.S. NCHS weight-for-age standards (Annex Table 9). This is roughly double the proportion recorded in the first national survey carried out in 1961-62. More serious is the finding that 8% of children in the country were clinically classified as suffering from marasmus or kwashiorkor, an incidence about twice that usually found in low-income countries. Malnutrition levels are highest in the northern zone (64%) and lowest in the coastal zone (48%). Catholic Relief Services (CRS) data for children attending MCH centers show a slightly better pattern. They indicate that even in a "good" agricultural and nutrition year like 1980, 35% of children were below 80% weight-for-age; in the terrible drought of 1983, 51%; and even by 1986, after the recovery of agricultural production, about 35% again. As for mothers, clinical signs of malnutrition have been found to be 50% higher among pregnant than among nonpregnant women of reproductive age. As many as 69% of pregnant women tested at antenatal clinics in 1987 were anemic by WHO standards.

3.5 Micronutrient deficiencies are also of concern. Iron-deficiency anemia was just noted. Vitamin A deficiency appears concentrated in northern areas. Goiter, caused by iodine deficiency or inefficient cassava processing, may affect up to a third of the population in parts of the north and Ashanti.

2. Preharvest Hunger

3.6 Preharvest hunger has long been identified as a serious problem in Ghana. It is particularly severe in the north, where, because of a more limited rainy season, there is only one harvest a year. Most families are reduced to one or two meals a day. A significant proportion lose muscle tissue as well as fat, increasing susceptibility to disease. The period of low energy intake coincides with the peak farming season -- the period requiring the highest energy expenditure. One survey found 36% of women classifiable as severely underweight in the lean season as compared with 19% the rest of the year. (The respective figures for men are 23% and 3%.) Few of these women will achieve acceptable weights after the harvest, with serious implications for fetal and subsequent development of children, not to mention the health of the mother.

B. Strategy

3.7 Ghana's nutrition strategy has combined encouragement of agricultural production with MOH programs addressing malnutrition. The latter range from growth monitoring to facilities for treating acute malnutrition cases. Their common feature is that they are facility- rather than community-based. They do cover both preventive and curative aspects. They mostly operate either with clinical staff in a hospital setting or integrated with other MCH services. The most important component quantitatively is supplementary feeding.

C. Program Impact

3.8 The success rates and costs of the programs are difficult to evaluate, partly because the data on service output and on inputs are partial and inconsistent. Some data are available on coverage of the target groups, but very little on the numbers rehabilitated. The preventive programs do not appear to have had much impact. The curative programs are difficult to evaluate. In any case, the malnutrition situation remains most unsatisfactory.

3.9 The major activity of nutrition personnel is institution education. Despite much dedicated effort, however, the program lacks focus and consistency. Information disseminated is sometimes contradictory. Moreover, some messages conveyed may not be helpful, seldom being based on the expressed needs of mothers.

3.10 Growth monitoring of children 0 to 5 is now carried out in virtually every MCH center in the country, guiding enrollments in curative programs.

3.11 Three of the four residential hospitals admitted a total of 1,000 patients in 1987. Case fatality rates at the MOH hospitals are horrendous (28% for all children's diseases at Accra and 41% for malnutrition cases at Kumasi). To be fair, these hospitals receive the worst

cases. In any event, they are clearly too expensive for large-scale replicability. Nor are the 43-day-type nutrition rehabilitation centers well suited to conditions in Ghana. Mothers referred by MCH centers quickly drop out ("abscond" in Ghanaian parlance) because of work and family demands.

3.12 Until September 1987, over 95% of MCH centers in the country distributed take-home food provided by U.S. assistance through CRS. The program reached some 180,000 children between 7 and 42 months old. But many were not below 80% weight-for-age, as that threshold is not a criterion for admission into the food program. Low discharge rates work to lengthen waiting lists and may encourage family dependence on the extra rations. Furthermore, providing take-home food dilutes the benefits to the malnourished child, undermining the rehabilitative impact. In October 1987, CRS cut back its distribution, in part because of inadequate administrative capacity, limiting it to the five regions nutritionally least well off, while continuing to respond to emergencies throughout the country. Attendance at MCH centers without food reportedly declined by as much as half initially. The program may only reach about 15% of the malnourished children aged 7-42 months at present.

3.13 Available partial data, albeit contradictory, report attendance or admission in 1987 of about 76,000 at hospitals, rehabilitation centers and malnutrition clinics. The discharge -- hopefully rehabilitation -- rates in 1987 where available were 62% for hospitals, 43% for rehabilitation centers, but only 11% for malnutrition clinics, for 21% overall.

3.14 Government nutrition activity at the community level has been integrated with and dependent on MCH center outreach efforts, which have been severely limited by available transportation.

3.15 Integrated MCH and nutrition services can work at village level on an outreach basis with sufficient inputs, at least on a pilot basis as recently begun. A weaning food project represents the second promising approach to community nutrition at the village level. Its centerpiece is the provision of a small grinding machine to be used as a commercial income-generating activity and to produce weaning food sold at a subsidized price. To date, about 150 grinding mills have been ordered or procured and more than half installed. The production is expected to generate a need for related health and nutrition inputs.

3.16 A pilot study has been under way in Ashanti and Western Regions to provide iron and vitamin supplements to pregnant women to assess the effects on birth weights and maternal morbidity. With respect to vitamin A, the U.K. Overseas Development Administration and WHO will be involved in similar assessments in northern areas. As for treating goiter, sea salt is produced far from the affected groups while rock-salt production elsewhere is hard to target for iodization. UNICEF has therefore imported small quantities of iodated oil for trials through the health system in northern areas.

3.17 Despite the range of programs currently being attempted, there is an absence of both evaluation of Ghanaian experience and reference to other models tried successfully elsewhere or otherwise in Africa and other developing countries. Residential rehabilitation programs, for example,

have been abandoned in many countries because of high health risks of residence and because of costs.

D. Inputs

3.18 The recurrent budget allocation of the Nutrition Division was ¢47 million in 1988, equivalent to only 0.5% of the MOH recurrent budget. But this greatly understates the actual effort, since it excludes the clinical programs, the MCH program inputs and external assistance. A comprehensive figure is not available presently. The PIP for 1988-90 contains ¢424 million for rehabilitation of nutrition centers, equivalent to 2% of the MOH PIP and again an underestimate.

3.19 The MOH Nutrition Division had a reasonably sized cadre of 176 technical personnel in the regions in 1987, or one to every second rural health facility. The challenge to the Division is to better mobilize these staff and refocus them on priority areas. The Division is constrained by operating expenditures and inadequate transport, although it also proved worse than average in MOH at spending the funds actually released to it in 1987.

3.20 About 70 of the nutrition field staff have had a three-year training course, and another 22 students are presently enrolled. The course includes much valuable subject matter, but little in the way of practical assignments or fieldwork. Shortage of transport is a major reason.

3.21 Any amelioration of seasonal food scarcity necessarily will require (1) larger food stocks at the farm, where stored-food losses range from 30% to 50%; (2) an ability to purchase food at reasonable prices; or (3) the temporary provision of donated food. Projects and programs are currently under way in each of these areas. For example, improved storage bins are being designed. A limited price-support system is in effect. Seed varieties have been developed that mature quickly, in effect reducing the duration of the preharvest hunger period. As for temporary provision of food, there is legitimate concern about the potential disincentive and dependency effects of food aid. But the problem is serious enough to justify additional, carefully defined provision of donated food on a temporary basis.

E. Recommendations

3.22 The Government should give policy-level recognition to malnutrition as a serious public health problem and articulate national goals for its reduction. Suitable goals for 1995 would be reduction of the proportion of children 0 to 5 years below 80% weight-for-age from 58% in 1986 to 40% or 45%, and of the incidence of marasmus and kwashiorkor from 8% to 5% or 6%. Achievement of these goals will require both increased agricultural production and the development of less constrained nutrition services, particularly at the community level.

3.23 The Government should undertake new strategic thinking about possible interventions suitable to Ghanaian conditions in light of experience elsewhere in Africa and the rest of the developing world. This would be a suitable area for donor support.

3.24 The Government should ensure regular evaluation of program activities and extend its pilot clinic-based surveillance program so as to cover each region of the country.

3.25 The content of nutrition education activities should be revamped on the basis of systematic participatory research, and a comprehensive and consistent strategy for the dissemination of these messages developed. New entrants should be selected into CRS-assisted feeding programs in MCH clinics by nutritional criteria to permit eventual inclusion of most clinic attendees who are nutritionally at risk. MOH should avoid expansion of nutrition rehabilitation facilities as presently operated.

3.26 Instead it should incorporate the nutrition rehabilitation concept at the community level. The nutrition/MCH outreach from Level B facilities should use a community-participation model similar to that being carried out by the MOH/Meals for Millions collaboration in Kintampo district, with

3.27 Apart from agricultural sector measures which the Government may take, food-for-work programs during the four-month hungry period in northern areas should be increased with the assistance of international and local NGOs. Finally, MOH should consider the provision of additional CRS food during this period to nonenrolled children and their families who attend MCH centers in the northern regions, with quantities based as closely as possible on production, storage, and price projections to reduce the possibility of disincentive effects on producers.

3.28 The Government should consolidate nutrition training to a highly focused 12- to 14-month program with practical assignments and fieldwork, but without sacrificing professional position grading. Priority should be given to existing untrained nutrition field staff and to retraining programs.

IV. REFORMS AND TARGETS

A. Preparation and Actions During 1988

4.1 The Government fully recognizes the inadequacy of the existing population, health and nutrition services as analyzed above. With a view to rapidly improving the quality of service and the coverage of the population, it has embarked on a broad sector reform program emphasizing a manageable number of the most important reforms required, with focus on the four key areas of management, procurement, financing, and manpower. Its initial focus has been on health, largely because the problems are so great and so visible, but also because improved health services are one important requirement for a more successful population program, and because more successful nutrition strategies have not yet been evolved.

4.2 During 1988, the MOH has carried out a great deal of preparatory work for the complete overhaul and rehabilitation of the health system. It has organized a national health symposium in June 1988; completed a study on reorganization of the Ministry; completed detailed studies on health policy, manpower and finance; and secured enactment of a new Hospital Board Law and prepared for its implementation first in the teaching hospitals, where it has appointed a new Hospital Administrator General for Korle Bu.

4.3 It has started implementing an essential drug policy, including introducing essential drug lists and a national formulary; audited the inventory of drugs at all levels and destroyed expired drugs at all stores and hospitals; and prepared an estimate of drug needs based on epidemiological data. It has secured a special permit to clear imported drugs immediately from the port. It is currently preparing proposals for restructuring and strengthening the drug procurement function in the reorganized MOH; immediate rehabilitation of stores; establishing a small quality control laboratory; and rationalizing drug pricing. And it is seeking formal approval to retain 100% of the proceeds of drug sales.

4.4 In the area of finance, it has prepared a 1989 recurrent budget with significant improvements in the allocations for travel/transport and for maintenance, as well as for meeting drug needs including rebuilding currently depleted stocks. On the investment side, it has completed an inventory of the rehabilitation needs of health centers and posts; and completed a draft study of the rehabilitation needs of eight major hospitals.

4.5 These preparatory studies and proposals, and the actions already taken in 1988, feed directly into the next phase of the reform program.

B. Sector Reform Program, 1989-91

4.6 MOH is currently carrying out a large number of different activities, relative to the number of managers it has; sometimes this spread is driven by donor desires to diversify the programs they support. MOH is likely to perform better if it focuses its time and energy on a smaller number of priority activities.

4.7 The running of existing systems and activities takes most of the time and energy available, and this load cannot be reduced much; but more of it should shift to the regions after reorganization. MOH needs to decide its own capacity for undertaking new initiatives, both at HQ and in the regions; and then farm out to NGOs or the private sector activities they can undertake, with MOH initiating, facilitating and reviewing them. MOH should then select, on the basis of a consistent set of criteria, a manageable number of ongoing and new activities it will emphasize. This report estimates that MOH HQ can in future effectively manage routine business plus about 15 special activities each year (some of which are already underway); and that the regions can manage routine business (as defined after reorganization) and about 10 special activities each year. Recommended priority activities are summarized in the paragraphs below and in Annex Table 11. These have been selected for early and substantial impact on the quality, quantity and equitable distribution of services delivered. MOH should publicize its priorities widely to its staff. For each priority item there should be targets, action plans, timetables, the assignment of responsibility, and provision for regular progress reports and review meetings. Performance should then be linked to the incentive system.

Population

4.8 The family planning program should receive a political relaunch. A national population council should be created. The Government should

draw up a strategy and action plans for the program. The contraceptive social marketing program should be extended. Planned P renthood Association of Ghana activities should be expanded. MOH service delivery points for family planning should be made fully functioning. An I&C plan for the public sector should be drawn up. A management information system, performance monitoring and incentives should be instituted. The next round of donor support (especially USAID, UNFPA, IDA) should be identified within the framework of the Government's strategy and action plans.

Health

4.9 Management. MOH should be reorganized and decentralized, with competent key managers in place by end-19[illegible]9. MOH HQ should remain responsible for policy, planning, monitoring, supplies, and aid coordination. Rehabilitating planning should have high priority. Management processes, a management information system (covering mission facilities also), and incentives to those exceeding service targets should be instituted. All other operational responsibilities, and control of budgets and personnel, should pass to the regions which should be provided with increased authority and resources. Regional hospital boards and strengthened PHC management should promote horizontal coordination and balanced resource allocation. A system of supervision should be reestablished. Coordination with the missions and other NGOs should be formalized.

4.10 Procurement. MOH should henceforth procure only items on the essential drug lists introduced in June 1988. The estimates of drug needs just made made should guide future drug budgets and MOH procurement, which should be speeded up and improved. Inventory management should be improved, including the prevention of future expiry of drugs. Medical equipment should be restocked using standard lists. Transport problems should receive innovative solutions, with mobility restored and outreach expanded through fixing broken-down four-wheel vehicles and purchasing motorcycles. Supply systems should be unified by the end of 1989.

4.11 Services. Service targets attainable through 1990 by MOH and the missions should be identified and service delivery plans drawn up. District plans should be formulated jointly with missions operating there; in certain districts, the missions should be asked to take responsibility for PHC expansion. Service delivery and resource allocation should focus on services with the greatest impact on infant, child and maternal mortality and morbidity, e.g. the expanded program on immunization and the oral rehydration therapy campaign. Service quality should be improved by completion of the new program for in-service training of all Level B staff; by reallocating personnel to underserved regions; and by rehabilitation of district hospitals and the Korle Bu maternity block. Services should be extended by outreach and by completion of Level B facilities now under construction. A long-term investment plan should be drawn up.

4.12 Finance. MOH should increase its share of the total Government recurrent budget in 1989, to meet annual drug needs and rebuild stocks, but otherwise retain roughly its 1988 shares (recurrent 10%, capital 6%) through 1990. Budget estimates, based on service targets and norms, should increase the shares of PHC, transport, and maintenance substantially between 1988 and 1990, through growth in the total budget and through reaping potential savings in other areas of expenditure. Spending on PHC and drugs should be protected from overall resource shortfalls. MOH should

receive priority in releases for nonsalary recurrent expenditures, with most guaranteed in advance to permit rational service planning. Personnel seconded to mission facilities should remain fully funded. Facility completions for PHC, and district hospital rehabilitation, should have first priority in the health PIP. Monitoring and control of PIP expenditure should be tightened considerably. New projects should have satisfactory feasibility studies before implementation. To further supplement budgetary resources, fee collection should be tightened. Aid should be mobilized and channeled on the basis of the long-term investment plan through a meeting with donors, and its utilization speeded up.

4.13 MOH should achieve considerable savings through a substantial redeployment of non-technical staff by the end of 1990 to meet its actual needs, tight medical/technical staffing and budget norms, more efficient drug supply, and contracting-out or discontinuing institutional feeding by end-1989.

4.14 Drug financing should be completely reformed. Drug pricing should be rationalized and should pass efficiency gains on to patients. MOH staff should in future be treated like other civil servants, paying for drugs from early 1989 and being reimbursed. MOH should retain all proceeds from drug sales starting January 1, 1989 in a revolving fund to finance replenishment and port clearance. The fund should be suitably capitalized in 1989. All hospitals, health centers and clinics should pay MOH starting in early 1989 for all drugs from the proceeds of their drug sales to patients, receiving a seedstock of drugs equivalent to about 40% of their annual needs and financing the remaining 60% of their needs themselves in 1989.

4.15 Manpower. Priority should be given to recruiting key central, regional, and district managers, who will not necessarily be doctors. Health manpower should be more equitably distributed, i.e. additional clinical staff provided to underserved regions, starting in 1989 under new incentives.

Nutrition

4.16 Existing supplementary feeding programs should be more tightly targeted. Those terminated in 1987 should be restored. Hungry season food-for-work programs should be expanded. A better overall strategy (community-based) should be defined in the light of international experience.

C. Medium-Term Reforms

Population

4.17 MOH should expand outreach from existing service delivery points, and increase the number of such points as more health stations are built. PPAG should continue to expand, with possible targets of having clinics in the 50 largest towns by 1995 and the 100 largest by the year 2000; CCG should also expand. New channels for service delivery should be added: private doctors and midwives/maternity homes, missions and major employers in both the public and private sectors (possibly also involving trade unions). And alternative channels for reaching the village (including building on the contraceptive social marketing program) should be evaluated

and then new programs introduced. Use of a reproductive risk checklist to identify mothers requiring supervised deliveries will increase maternal health benefits of the program.

4.18 New contraceptive methods should be added to the four "staples" on a larger scale following pilot programs by NGOs, MOH and others: injectables, implants (when approved versions and funding become available) and female sterilization.

4.19 An IEC plan for the government sector should be implemented not only by MOH, but also by such agencies as the Ministry of Education and Culture, the Ministry of Information, the National Council for Women in Development, and the Ghana Institute of Management and Public Administration.

4.20 Training programs should be mounted for managers and staff of missions and population NGOs expanding their family planning activities, and the training program for TBAs should be expanded progressively.

4.21 The national population council should commission a thorough review of current and proposed laws and regulations affecting contraceptive use and fertility.

Health

4.22 The Government should continue its attack on mortality and morbidity, especially among children and women, by further improving and expanding health services, with priority to those with earlier and greater impact. The areas with poor health status (rural areas and the northern half of the country plus Western Region) should receive priority in resource allocation. Services should be differentiated by region according to epidemiological patterns.

4.23 A major objective should be to maintain public confidence in the health services, with a view to restoring utilization at least to past levels. A reasonable target would be one outpatient attendance per head per annum by the year 2000 (20 million attendances), implying an annual growth rate of 10% over the period.

4.24 NGOs. The Government should make special efforts to encourage the maximum possible expansion of NGO activities in health, population, and nutrition. This can be done by inviting new NGOs into Ghana, increasing subventions, and subcontracting services to efficient NGOs. The Government should adopt efficient strategies and systems employed by NGOs.

4.25 The missions and other NGOs should give priority to expanding family planning activities. PHC should be expanded from fixed NGO facilities. Community-based information and distribution services should be improved.

4.26 Private Sector. The Private Hospitals and Maternity Homes Board should be reconstituted to regulate private practice and set fees. The Government should facilitate bank loans for building rural private clinics. Specialists in Government service should be allowed to practice privately The Government should reach a compromise with private physicians over reimbursement for services to employees of state-owned enterprises. It should

actively encourage rural private midwife services. The Pharmacy Board should be strengthened to ensure the maintenance of professional standards. Pharmacists in government service should be offered inducements to stay out of private practice, and training output should be expanded. The Government should encourage private pharmacists to compete to offer services in government hospitals.

4.27 MOH Organization and Management. A management services unit should be established within HQ.

4.28 To attract managerial personnel of sufficiently high caliber to the regions and districts, housing and other benefits should be made available.

4.29 If the management reform is to have a real chance of being fully implemented, major changes should also take place in the processes of agencies outside MOH as they affect MOH, especially the Ministry of Finance and Economic Planning and the Controller and Accountant General. The legal framework should also be adjusted to reflect the new structures.

4.30 The regional director, not the proposed new regional hospital boards, should be given back control of health centers and posts.

4.31 Primary Health Care. A reasonable target would be to achieve 80% coverage of PHC by the year 2000, and universal coverage by 2010. From the viewpoint of equity. service extension and investment directed at extending coverage should focus first on the underserved regions. Each region should have rural population coverage of at least 50% by 1995 and 80% by the year 2000. These targets should be translated into specific allocation decisions, otherwise they will remain aspirations on paper only. As a first step, the next 100 new health stations should all be put into the underserved regions. Within regions, site selection should maximize the numbers who will benefit by selecting first the largest unserved communities.

4.32 The Government should maintain its commitment to PHC and provide the necessary management and resources for its continuing improvement and expansion, so that decent public health services can be provided to a very large proportion of Ghana's people before the turn of the century.

4.33 Comprehensive plans for PHC expansion should be drawn up. Current 80% coverage targets should be postponed to the year 2000 in most cases and realistic intermediate targets set. Achieving even these will require substantial increases in resources and more effective management will also be in order.

4.34 MCH/FP coverage should continue to expand to perhaps 80% by 1995. The targets for immunization coverage (subject to the starting point established in the 1989 coverage survey) could be 60% in 1995 and 80% in the year 2000, with no region lagging more than 20% behind. After 1990, static and outreach immunization services should take over from mass campaigns and maintain the momentum. Oral rehydration therapy should continue to be promoted to control diarrheal disease.

4.35 The Government should give priority to the [illegible] strategy being promoted by UNICEF, which bases its underpinnings people's perceptions of

their own needs; thus it works from the village level up. The Government should consider reviving and upgrading the National Audiovisual Service to become the production unit for all training support materials.

4.36 Community-level (Level A) strategy can be divided into two parts. The program of training traditional birth attendants in villages of 500 and more in basic modern MCH/FP practices should continue on a gradually increasing scale. But the best way to meet additional needs at the community level should be carefully evaluated before embarking on any additional programs. Such an evaluation should include a thorough assessment of needed resources, identification of needed community inputs, and a gauging of how adequately the program will meet major community needs.

4.37 Manpower. A manpower plan should be prepared, based on future service targets, current workloads, gradual productivity increases and hence staffing norms. Based on the manpower plan, a training plan should be prepared, including appropriate specialty training in Ghana for doctors, a drastic reduction in production of clinical professional nurses, a major expansion of PHC training combined with a thorough overhaul of curricula, continuing adequate in-service training, and rehabilitation of training institutions.

4.38 Drugs. The various aspects of the national drug policy should be phased in over the medium term. Stores should be refurbished. The intake of pharmacy students should be increased.

4.39 The local pharmaceutical industry should where competitive be encouraged to develop to produce commonly used large-volume drugs from the essential drug lists. Drug regulation and enforcement should be strengthened and a full-fledged quality-assurance program instituted.

4.40 Transport and Communications. Long-term plans for vehicle requirements and hence acquisition should be drawn up, based on plans for outreach and for supervision in the context of a general expansion of services. This need for vehicles should be minimized by installing radio links from regional offices down to each DHMT and health facility.

4.41 Finance. MOH HQ should carry out a study of hospital costs and efficiency. On this basis, it should set targets and monitor the performance of hospital managements. MOH should study, and where appropriate adopt, mission hospital management practices and systems. Training in hospital administration should be expanded.

4.42 Total recurrent expenditure on PHC should continue to expand rapidly in the 1990s as coverage is extended to a much larger proportion of the rural population, services improve further and utilization climbs substantially. A large proportion of the increases should go for nonsalary items, although PHC staff strength will naturally need to expand somewhat.

4.43 Travel/transport expenditures should be kept up to finance rising outreach and supervision activity. Maintenance expenditures should also rise substantially to preserve the value of newly rehabilitated hospitals and health stations and new PHC facilities.

4.44 To improve PIP project and cost definition, the recent hospital study needs to be evaluated and more district hospitals studied. Given the magnitudes involved, it is essential to determine priorities -- especially and beginning with Korle Bu -- and draw up a phased program, taking into account MOH's future capacity to speed up contracting and implementation of rehabilitation works on a large scale at up to 46 hospitals.

4.45 The priorities for the 1990s should be: (i) for PHC, the completion of rehabilitation of existing health stations, of ongoing construction, and (with a cheaper design) new health stations; and (ii) hospital rehabilitation.

4.46 The recommended PHC investment strategy would complete the rehabilitation of what is essential at all 250 existing facilities over five years; complete the balance of the 125 health stations under construction over five years, including scaling down the larger ones; and build, have built, or rent 660 new health stations by the year 2000, with the five underserved regions (Northern, Brong Ahafo, Western, Upper West, and Ashanti) brought to 50% rural population coverage by 1995 and all regions to 80% coverage by the year 2000. The total cost would be up to ¢1,900 million per year in 1991-93 and up to ¢1,300 million per year in 1994-2000.

4.47 For hospital rehabilitation, patient loads and rehabilitation costs per patient suggest that priority should go first to district hospitals, next to teaching hospitals and last to regional hospitals. The recommended investment strategy would complete rehabilitation in district hospitals by 1995, in teaching hospitals by 1998, and in regional hospitals by 2000. The total annual cost through 1995 would average ¢3.3 billion, although it will take a while to build up MOH's implementation capacity.

4.48 The proposed health insurance scheme should not be run from inside MOH, but by a separate (probably new) institution headed or at least closely advised by persons with training and experience in insurance. Any start-up actions by MOH should be directed to setting up such an institution and handing over responsibility to it as soon as possible.

4.49 Further design work should be undertaken on a number of aspects of the proposed scheme. Care should be taken to avoid the pitfalls of setting up or leading to a parallel system of health care; rapid cost escalation; covering an unnecessarily wide range of cost items; and subsidizing the scheme from general tax revenues.

4.50 In the medium term, most service charges (unchanged since 1985) should be either increased or indexed to reflect inflation. However, to limit the impact on utilization of services, remote areas or classes of facility should be left more heavily subsidized than elsewhere when fees are raised generally; and a few charges may need to be reduced if they are already discouraging the utilization of priority services. Drug prices should continue to be determined by a cost-based formula.

Nutrition

4.51 The Government should give policy-level recognition to malnutrition as a serious public health problem and articulate national goals for its reduction. Suitable goals for 1995 would be reduction of the proportion of children 0 to 5 years below 80% weight-for-age to 40% or 45%,

and of the incidence of marasmus and kwashiorkor to 5% or 6%. Achievement of these goals will require both increased agricultural production and the development of less constrained nutrition services, particularly at the community level.

4.52 The major effort in the medium term should be to implement a new community-based strategy. Nutrition/MCH outreach from Level B facilities should use a community-participation model.

4.53 The Government should extend its pilot clinic-based surveillance program to cover each region of the country.

4.54 The content of nutrition education activities should be revamped on the basis of systematic participatory research, and a comprehensive and consistent strategy for the dissemination of these messages developed.

4.55 The weaning-food program should be expanded with necessary financial and transport support. Similar income-generating programs with direct nutritional links should be encouraged.

4.56 The provision of iron, vitamin A and iodine should be built into current programs in areas where these micronutrients are deficient.

4.57 The Government should consolidate and shorten nutrition training, but without sacrificing professional position grading.

4.58 The Government should ensure regular evaluation of nutrition program activities.

D. Long-term Targets

4.59 As has been discussed, the existing targets for 1990 are ambitious and their achievement by then highly implausible. They should be postponed or relaxed. On the basis of the analysis in earlier sections of this report, together with an assessment of the improvements possible as a result of the reforms under way or proposed, Table 5 below presents a recommended set of targets in key areas up to the year 2000. They look toward the preparation of a first set of annual and medium-term rolling plans during 1989, and the installation of a health/management information system designed to permit monitoring of progress in key areas.

Table 5: Long-term Targets

Indicator	Unit	Now	1998	1995	2000
POPULATION					
Contraceptive prevalence rate	%	11-13	14	21	31
Total FP acceptors	'000	385	384	545	965
New FP acceptors	'000		146	258	433
HEALTH					
1. PHC					
Rural Coverage					
- 5 advanced regions	%	48-100		80-100	
- 5 underserved regions	%	11-39		50	80
Outpatient Attendances	m	6	8	13	20
MCH					
- ANC coverage	%	50	60	80	
- CWC coverage	%	50	60	80	
Fully Immunized 0-2					
- national	%	<20	40	60	80
- worst region	%	<10	20	40	60
Facilities Investment					
- completions	#		60	120	All
- rehabilitation	#		100	255	
- new	#		0	350	700
2. Hospital Rehabilitation				1995 District (36) 1998 Teaching (2) 2000 Regional (8)	
3. Drugs					
Stock-outs at CMS					
- all items	%	50-60			
- general ED list	%		0		
- hospital ED list	%		20	0	
Expired at CMS	%		0		
4. Manpower					
Max. regional outpatients/ inpatients per					
- doctor	#	16,763/1,781	12,000/800		
- clinical nurse	#	1,753/184	800/40		
Redeployment (non-technical)	#		8,000		
5. Finance					
MOH share of budget					
- recurrent	%	10	10		
- capital (excl. aid)	%	6	6		
Shares of MOH budget					
- PHC	%	23	1988-90: 25%p.a. real increase		
- Travel/transport	%	2	3		
- Maintenance etc.	%	2	3		
Drug cost recovery	%	34	70		
NUTRITION					
Children 0-5					
- < 80% weight-for-age	%	58		40-45	
- marasmus/kwashiorkor	%	8		5- 6	

V. EXTERNAL ASSISTANCE

5.1 Ghana's population, health and nutrition sectors have attracted as many as 15 donors in the 1985-90 period (Annex Table 10). The bilateral donors are Canada, Japan, the Netherlands, Switzerland, the Saudi Fund, the United Kingdom and the United States of America, with indirect assistance from Germany. The multilateral donors are AfDB, EEC, IDA, UNFPA, UNICEF, UNDP and WHO.

5.2 Based on statistics available to the Bank, pledged and committed assistance from bilateral donors appears to be equivalent to about US$40 million, and from multilateral donors, about US$45 million.

5.3 Disbursement information is harder to compile. Spreading committed amounts proportionately over their intended periods of disbursement, about US$38 million should have been disbursed by the end of 1988. But the draft 1989-91 PIP, which covers the activities of most donors, indicates disbursements of only about US$11 million by the end of 1988, although the 1988 numbers appear to be underestimates.

5.4 There are four main issues: (i) the volume of assistance committed; (ii) its relation to Ghana's health problems, priorities and systems; (iii) slow project implementation and disbursements; and (iv) need for aid coordination.

Sector Expenditures and Aid Levels

5.5 Population, health and nutrition expenditures in 1989-91 by the public sector alone are recommended in this report to total about ¢75 billion in current prices (US$270 million equivalent). Recurrent expenditures would be ¢52 billion (69% of the total) and PIP expenditures ¢23 billion (31% of the total). The NGO and private sector activities recommended here would add a substantial but as yet unquantifiable amount.

5.6 The Government (MFEP's PIP Task Force) has identified remaining financing gaps of the projects in the 1989-91 PIP until completion totaling US$143 million, of which US$101 million in foreign exchange. These needs for the PIP identified by the Government have been reviewed in this report's discussion of health financing.

Priorities 1989-91

5.7 The priority activities for 1989-91 recommended in this report also have unmet financing needs. These should have first priority with donors for either the reallocation of existing funds or the use of new funds. The needs are for recurrent as well as capital expenditures.

5.8 In population, immediate support is needed for drawing up a strategy and action plans for family planning. Support is needed after 1989 for the expansion of the contraceptive social marketing program; for MOH family planning activities, especially contraceptive supply; and for information, education and communications. The Planned Parenthood Association of Ghana activities need support for expansion after 1990, if not before; so will those of the Christian Council of Ghana.

5.9 In health, the reorganization of MOH creates a need for external assistance for: management training; drawing up plans for MOH operation, including greater decentralization, strengthening of regional health management, a system of supervision, and a management information system with performance monitoring and related incentives; and for planning (at the regional and district levels), including early preparation of both PHC service delivery plans and a long-term sector investment plan. External financing is urgently needed to rebuild drug stocks and finance the realistically estimated annual needs; to equip and improve drug supply management and drug procurement; and to rehabilitate the drug supply infrastructure. Priority PHC activities such as EPI need additional funding. The completion of health stations under construction, although full Government funding is anticipated, would be accelerated by external assistance.

5.10 In nutrition, external assistance is needed in defining a new community-based strategy for reducing malnutrition; for replacing past supplementary feeding programs in presently unserved regions; and for extending hungry season food for work programs.

5.11 External assistance which may become available to meet these needs falls into three categories. Firstly, the obverse of the past lag in disbursements is the availability of a substantial pipeline of pledged or committed but undisbursed aid to meet future needs: anywhere from US$47 million to US$74 million. These funds are already earmarked, but a portion could possibly be reallocated if higher-priority uses are identified. Secondly, an informal estimate of the likely next round of commitments of six significant donors (United Kingdom, United States of America, IDA, UNFPA, UNICEF, and WHO) suggests that they could together commit almost another US$70 million to these sectors in the next two years, albeit about half would be for spending after 1991. Thirdly, there is strong justification for additional commitments from other existing donors, and for new donors to assist these sectors. They form a large part of the core of efforts both to mitigate the social costs of adjustment and to achieve long-run human development, income growth, poverty alleviation and environmental objectives. A realistic target may be to increase commitments from these donors to about US$10 million per annum.

5.12 The overall target should be to disburse US$50 million worth of external assistance in these sectors in 1989-91.

Improving Implementation and Disbursements

5.13 The major role in enabling this severalfold increase in the rate of aid disbursements will have to be played by MOH, through three sets of actions. First, it will need to focus its limited administrative and implementation capacity much more sharply on a smaller set of priority activities, initially for 1989-91 and then for the medium term, including those on which large volumes of external assistance can be disbursed. It will need to limit its own tendency to embark on more and more new activities, to steer donors more actively, and to say "no" or at least "not yet" to diversification initiatives by donors which do not appear in its own list of priorities. As part of this concentration, MOH should try to have only one donor for each activity. Second, HQ will need a greatly strengthened unit or units for aid coordination and project implementation, which will no longer pass through the heads of HQ program divisions, but

will require staff who acquire expertise about donors and their procedures, as well as staff who can help MOH get a grip on and expedite its own investment program. Third, the regional directors, each with an identified aid coordinator on his team, will become the direct counterparts of donors for all operational matters following reorganization. All these staff will require training, which MFEP can provide only in part.

5.14 The donors also have important parts to play in speeding aid disbursements. First, they should consider reallocating existing funds, and/or committing new ones, so as to ensure full funding of the priority activities for 1989-91. Second, they should concentrate their funding on fewer activities, each on a larger scale, ensuring the full funding of each activity by one donor. Several significant donors are each involved in at least 20 different activities at present; the administrative load on MOH, in planning, negotiating, setting up, facilitating and reviewing all activities with donors (even where another agency is directly implementing the activity), is creating severe strains. Third, donors should continue and increase their willingness to finance both recurrent expenditures (essentially non-wage, although there will be cases where incremental salary costs of strengthening particular units should be financed for a time) and local costs. Fourth, after the reorganization of MOH donors must be prepared to deal even more with the regions, including reaching agreements only with (or with the consent of) regional directors and opening project accounts at the regional level. This will increase the administrative load on donors, at least initially, but should more than repay the effort in improved implementation and disbursement performance. Fifth, donors should provide training on their activities and procedures to both HQ and regional staff of MOH.

Aid Coordination

5.15 Finally, there is a need for increased aid coordination in these sectors, both to deal with already present overlaps and multiple-source financing of activities, and as the volume of activity and the number of donors grows. Further sector studies by donors do not appear to be necessary at this stage. The local aid group for health is already taking care of regular coordination needs. Two special exercises should also be mounted in 1989. First, the next round of family planning program assistance should be coordinated through meetings around May 1989, as several major donors identify their next projects; the Government's strategy and action plans should be prepared in time to frame the discussions. Second, there should be a full sector meeting in Accra in fall 1989 on the basis of the Government's long-term investment plan for the sector. This should bring together members and observers of the Consultative Group, other donors to PAMSCAD, any other likely official donors, and major NGOs interested in population, health and nutrition.

POPULATION, HEALTH AND NUTRITION INDICATORS

ANNEX
Table 1

Indicator	Unit	Ghana		Central and West Africa	Eastern and Southern Africa
		Year	Value	Mainly 1984 and 1985	
Population					
Total population	(million)	1986	14	228T	170T
Population under 18	(million)	1986	6.9	94T	83T
Population under 5	(million)	1986	2.7	37T	33T
Population annual growth rate	(%)	1980-85	3.3	2.8	3.2
Crude birth rate	(/1000)	1986	47	48	48
Total fertility rate		1986	6.5	6.3	6.6
Contraceptive prevalence	(%)	1981-85	10		
Annual number of births	('000)	1986	663	11,100T	8,400T
Proportion of births attended by trained health personnel	(%)	1984	73	n.a.	50
Life expectancy at birth	(Years)	1986	54	51	50
Life expectancy females as % of males	(%)	1986	107	106	106
Crude death rate	(/1000)	1986	14	20	16
Maternal mortality rate	(/100,000)	1980-84	1074	n.a.	n.a.
Under 5 mortality rate	(/1000)	1986	150	223	161
Annual number of infant and child deaths (0-4)	('000)		99	2,100T	1,700T
Infant (under 1 year) mortality rate	(/1000)	1986	91	130	110
Health					
Population with access to health services					
- total	(%)	1980-85	50	n.a.	n.a.
- urban	(%)	1980-86	92	n.a.	n.a.
- rural	(%)	1980-86	45	n.a.	n.a.
Fully immunized					
Children 1 year old:					
- TB	(%)	1985-86	37	43	70
- DPT	(%)	1985-86	14	20	47
- Polio	(%)	1985-86	13	18	49
- Measles	(%)	1985-86	45	35	53
Pregnant women:					
- Tetanus	(%)	1985-86	6	13	20
ORS per 100 episodes of diarrhea	(litres)	1985	26	n.a.	n.a.
Nutrition					
Average index of food production per capita	(1979-81=100)	1983-85	118	n.a.	n.a.
Daily per capita calorie supply as % of requirements	(%)	1985	78	95	97
Infants with low birth-weight	(%)	1982-85	17	14	13
Mothers breast-feeding					
3 months	(%)	1980-86	100	97	96
6 months	(%)	1980-86	70	92	90
12 months	(%)	1980-86	25	73	76
Children under five suffering from mild-moderate malnutrition	(%)	1980-86	23	n.a.	n.a.
Children under five suffering from severe malnutrition	(%)	1980-86	7	n.a.	n.a.
Prevalence of wasting in children aged 12-23 months	(%)	1980-86	28	17	28
Education					
Adults literate					
- male	(%)	1985	64	49	70
- female	(%)	1985	43	29	55
Proportion of age group enrolled in primary school					
- male	(%)	1983-86	75	87	98
- female	(%)	1983-86	59	51	87
Proportion of grade 1 enrollment completing primary school	(%)	1980-86	75	62	62
Secondary-school enrollment ratio					
- male	(%)	1983-86	45	23	21
- female	(%)	1983-86	27	11	14
Urbanization					
Population urbanized	(%)	1985	32	32	22
Average annual growth rate of urban population	(%)	1985	3.9	5.5	6.3
Water Supply					
Population with access to safe water					
- total	(%)	1983-86	50	37	42
- urban	(%)	1983-86	72	60	73
- rural	(%)	1983-86	47	28	33
Income Levels					
GNP per capita	(US $)	1985	380	320	325
Population below absolute poverty level					
- urban	(%)	1977-85	50	n.a.	40
- rural	(%)	1977-85	37	44	55
Public Expenditure					
Central government expenditure allocated to health	(%)	1985	9.8	5	7
Central government expenditure allocated to education	(%)	1985	18	16	15

Sources: UNICEF, The State of the World's Children 1988
UNICEF, Statistics on Children in UNICEF Assisted Countries

Notes: 1. These figures do not always match those in other tables.
2. Figures are medians except that T denotes totals.

ANNEX
Table 2

Alternative Population Projections and Their Implications

		1985	2000	2020
Projection A (Gradual Fertility Decline)				
Population	(m)	12.7	20.3	32.3
Population Growth Rate	(% p.a.)	3.3	2.8	1.7
Number of 18-Year-Olds		275,000	430,000	700,000
Primary Enrollment Ratio	(%)	68	47	41
Secondary Enrollment Ratio	(%)	44	29	22
Food Production Growth	(% p.a.)		5	2.5
Contraceptive Prevalence Rate	(%)	9.5	31.0	
Number of FP Acceptors		177,000	965,000	
Projection B (Rapid Fertility Decline)				
Population	(m)	12.7	19.1	25.4
Population Growth Rate	(% p.a.)	3.3	2.7	2.2
Number of 18-Year-Olds		275,000	430,000	400,000
Primary Enrollment Ratio	(%)	68	49	67
Secondary Enrollment Ratio	(%)	44	29	39
Food Production Growth	(% p.a.)		5	1.5
Contraceptive Prevalence Rate	(%)	9.5	63.5	
Number of FP Acceptors		177,000	1,987,000	
Projection C (No Fertility Decline)				
Population	(m)	12.7	21.1	44.6
Population Growth Rate	(% p.a.)	3.3	3.7	4.0
Number of 18-Year-Olds		275,000	430,000	900,000
Primary Enrollment Ratio	(%)	68	45	23
Secondary Enrollment Ratio	(%)	44	29	15
Food Production Growth	(% p.a.)		5	4
Contraceptive Prevalence Rate	(%)	9.5	9.5	
Number of FP Acceptors		177,000	296,000	

Source: World Bank projections.

ANNEX
Table 8

LEADING CAUSES OF OUTPATIENT MORBIDITY, 1987

	Number of Cases	Incidence /1000 Population
Infectious and Parasitic Diseases		
Malaria	1,141,893	84.0
Upper respiratory infection	212,548	15.6
Diarrhea	219,798	16.2
Skin diseases	120,829	8.9
Intestinal worms	99,541	7.3
Acute eye infection	56,248	4.1
Ear infection	24,438	1.8
Gonorrhea	14,877	1.1
Measles	31,434	2.3
Pneumonia	19,819	1.5
Bilharzia	11,635	0.9
Hepatitis	11,605	0.9
Infectious yaws	6,417	0.5
Cholera		
Pertussis	7,822	0.6
Subtotal	1,978,484	145.5
Other Disorders		
Accidents	103,187	7.6
Pregnancy related complications	87,282	6.4
Rhumatism and joint pains	41,852	3.0
Hypertension	47,276	3.5
Gynecological disorders	48,628	3.6
Anemia	41,588	3.1
Disease of oral cavity	22,476	1.7
Malnutrition	14,461	1.1
Subtotal	405,790	29.8
All other diseases	282,452	20.8
Total	2,666,646	196.1

Source: MOH

ANNEX

Table 4

OUTPATIENT ATTENDANCES, 1976-1987

Year	Population (million)	Outpatient Attendances (million)	Attendances Per Head of Population
1976	16.6	10.7	1.07
1980	10.7	6.3	0.59
1981	11.1	5.4	0.49
1982	11.5	6.2	0.54
1983	11.9	4.7	0.39
1984	12.3	4.5	0.37
1985	12.7	4.1	0.32
1986	13.2	4.2	0.32
1987	13.6	4.8	0.35

Source: MOH; Statistical Service Board

1. Excludes village-level contacts (possibly 1.5-2.0 million per annum)
2. New cases (treatment episodes) were 2.7 million or 57% of the total in 1987
3. Mission (CHAG member) outpatient attendances were 2.8 million in 1983

ANNEX
Table 5

MOH STAFFING, 1987

	Number	% of Total
1. Professional:	12,513	32.8
Physicians	587	
Dentists	63	
Nursing:	11,863	
Professional	3,512	
Auxiliary	8,351	
2. Technical:	3,318	8.7
Admin. Classes	32	
Accounting	70	
Executives	208	
Technical Officers	1,418	
Health Inspectors	1,260	
Supply/Materials/Stores	330	
3. Non-Technical:	20,184	52.7
Artisans, Skilled/Manual	6,788	
Catering	385	
Secretarial/Clerical	727	
Ungraded Posts	12,212	
o/w Students	1,652	
Cooks, Kitchen assistants	655	
Clinic attendants, clinic orderlies, disp. attendants	1,367	
Clinic, hospital, hostel, and health center orderlies	4,317	
Other	4,221	
4. Unclassified	2,203	
Total	38,188	100.0

Source: Office of the Head of the Civil Service

MOH RECURRENT BUDGETS BY TYPE OF EXPENDITURE 1987-1989

Item	Type of Expenditure	1987	1988	1989	Share of Total 1987	Share of Total 1988	Share of Total 1989	Increase 1989/1988
		(C Million)				(%)		(%)
1	Personal Emoluments	3061	4511	6503	44.0	45.9	41.1	44.2
2	Travel & Transport	168	181	412	2.4	1.8	2.6	127.6
3	General	306	337	1345	4.4	3.4	8.5	299.1
4	Maintenance Repairs & Renewals	136	162	275	2.0	1.6	1.7	69.8
5	Other Current	2756	3903	6333	39.6	39.7	40.0	62.3
	(of which: Drugs & Dressings)	(1424)	(2000)	(n.a.)				
	SUB-TOTAL ITEMS 2 - 5	3366	4583	8365	48.4	46.6	52.8	82.5
6	Subventions	524	738	965	7.5	7.5	6.1	30.8
	TOTAL RECURRENT	6952	9833	15833	100.0	100.0	100.0	61.0
	Items 2 - 5 as % of Total	48.4	46.6	52.8				
	PHC as % of Total	22.0	22.8	24.0				

Source: MOH

PUBLIC INVESTMENT PROGRAM IN HEALTH 1988-1991
(C Million)

Number	Project/Program	PIP 1988-90 Total	PIP 1988-90 o/w: PHC	PIP 1989-91 Total	PIP 1989-91 o/w: PHC
MED					
001	Primary Health Care Strengthening	1365	1365	1507	1507
002	Institutional Strengthening	557	0	833	0
003	MCH/Family Planning Rehabilitation	1,530	1,530	1,453	1453
004	Nutrition Centres Rehabilitation	444	444	308	308
005	Health Stations Comp. and Rehab. Prog.	1000	1000	969	969
006	Equipment for Health Stations	850	850	1,314	1314
007	New Health Stations	1,135	1,135	782	782
008	District Hospitals Rehabilitation	1760	176	2461	246
009	Regional Hospitals Rehabilitation	870	87	800	80
010	Teaching Hospitals Rehabilitation	981	98	1071	107
011	Psychiatric Hospitals Rehabilitation	466	0	384	0
012	Leprosaria Rehabilitation	82	0	94	0
013	Health Training Institutions Rehabilitation	450	113	650	163
014	Health Support Services Rehabilitation	701	0	650	0
015	Research Centre into Plant Medicine	30	0	50	0
016	Radiotherapy Centre Korle Bu	160	0		
017	Solar Power Proj. for Health Stations	496	496	436	436
018	Logistic Support - MOH	655	295	669	301
019	Neurosurgical Unit - Korle Bu	120	0		
020	Cardio-Thoracic Unit - Korle Bu	396	0		
021	New Regional Hospital Construction - Cape Coast			850	85
022	Rehabilitation of Hospital Lifts			203	0
023	Revitalization/Rehab - Korle Bu			1,620	0
	TOTAL	14,648	7,589	17,384	7,751
	Health % of Total PIP	8.9		4.4	
	PHC % of Total Health		54.8		44.8

Source: MOH; MFEP

NEW PRIMARY HEALTH CARE FACILITIES REQUIRED FOR 80% RURAL POPULATION COVERAGE

BY THE YEAR 2000

Region	Number of Rural Facilities 1985	Rural Population Coverage 1985	Required Increase in Coverage 1985	Population Covered /Facility 1985	Required Increase in Number of Facilities	Of which: Construction Funded 1988	Of which: Other + New	Cost of New Facilities (5-room)
		(%)	(persons)					(@ C 25m each)
Greater Accra	21	100.0	0	14,468	0	9	0	0
Ashanti	52	42.9	810,598	11,786	69	7	62	1,245
Brong-Ahafo	58	29.6	699,529	4,577	133	23	110	2,283
Central	38	77.3	198,636	17,128	11	21	0	0
Eastern	48	57.7	528,171	14,883	35	8	27	543
Northern	38	11.8	779,988	2,538	306	9	299	5,985
Upper East	17	38.5	434,667	15,972	27	9	18	360
Upper West	17	18.4	319,648	4,248	75	9	66	1,328
Volta	91	100.0	0	18,726	0	19	0	0
Western	31	25.9	638,785	7,299	89	11	78	1,552
TOTAL	469	48.6	4,383,882	7,287	748	125	661	13,221

Source: MOH

ANNEX
Table 8

ANNEX
Table 9

MALNUTRITION AMONG CHILDREN: NATIONAL NUTRITION SURVEY 1988

Age Class (mths)/ Ecological Zone	Study Population	Median & +1SD		-1SD		-2SD & Below	
0-5	1,629						
Coastal	219	65.3		24.7		10.0	
Forest	898	57.2		28.2		14.7	
Northern	520	55.4		26.2		18.5	
Average			57.7		27.0		15.3
6-11	1,681						
Coastal	244	33.0		38.1		28.3	
Forest	893	26.5		31.2		42.2	
Northern	494	14.2		33.4		52.4	
Average			23.9		32.9		32.2
12-23	2,776						
Coastal	391	15.3		26.1		58.6	
Forest	1,481	9.4		22.3		68.3	
Northern	904	7.1		15.6		77.3	
Average			9.5		20.6		69.9
24-35	2,495						
Coastal	314	17.8		19.1		63.1	
Forest	1,306	12.1		17.5		70.4	
Northern	875	9.1		13.9		76.9	
Average			11.8		16.4		71.8
36-47	2,535						
Coastal	317	17.6		29.6		53.9	
Forest	1,305	12.2		27.5		60.3	
Northern	913	11.7		20.0		68.2	
Average			12.6		25.0		62.4
48-60	3,175						
Coastal	426	14.1		30.5		55.4	
Forest	1,663	10.6		24.1		65.3	
Northern	1,086	10.9		21.5		67.6	
Average			11.2		24.1		64.8
0-60	14,241						
Coastal	1,911	28.9		27.7		43.4	
Forest	7,538	18.4		24.5		57.1	
Northern	4,792	15.2		20.5		64.4	
Average			18.1		23.6		58.4

Source: MOH

ANNEX
Table 16

EXTERNAL ASSISTANCE
(SM)

Donor	Program	Original Amount	Proportionate Disbursement Schedule 1984	1985	1986	1987	1988	1989	1990	1991	Balance Post 1991
Bilateral											
1. Canada	EPI	2.0				1.1	1.2	0.8			
	NORRIP	2.5	0.5	0.5	0.5	0.5	0.5				
2. Germany	GIHOC 1/ Pharmaceutical Health Station Rehab	12.9					1.2	2.7	2.7	2.7	3.3
3. Japan	Noguchi Inst.	2.5		0.5	0.5	0.5	0.5	0.5			
	MCH	2.1						1.2	1.2		
	Regional Medical	0.8						0.4	0.4		
4. Netherlands		5.0		1.2	1.2	1.3	1.3				
5. Switzerland	Drugs (BOP)	1.0			1.0						
6. Saudi	New Health Stations	9.2						1.6	2.1	2.1	3.6
7. UK	Drugs (prog aid)	1.9					1.9				
8. USAID	FP Project	7.0			1.7	1.7	1.8	1.8			
	Other	6.0			1.2	1.2	1.2	1.2	1.2		
		48.9	0.5	2.2	6.1	6.3	8.4	7.5	4.9	2.1	3.6
Multilateral											
1. AfDB	Hospital Rehab Study	1.0					1.0				
	Project	17.0						2.0	4.0	4.0	9.0
2. EEC	Drugs	1.6						1.6			
3. IDA	HERP	9.3				1.0	2.0	5.0	1.3		
4. UNFPA	I 85-89	3.0		0.6	0.6	0.6	0.3	0.6			
5. UNICEF	86-90	0.5			1.4	1.4	1.3	1.2	1.2		
	Drugs	1.0						1.0			
6. UNDP	Health Planning	0.6					0.3	0.3			
7. WHO	84/85	1.1	0.5	0.6							
	86/87	1.1			0.5	0.6					
	88/89	1.3					0.6	0.7			
		44.3	0.5	1.2	2.5	3.0	6.6	12.4	6.5	4.0	9.0
		85.2	1.0	3.4	8.6	9.9	15.0	19.9	11.4	6.1	12.6

Source: World Bank estimates

1/ Not included in totals.

ANNEX

Table 11
Page 1

PRIORITIES 1989-91

		1989	1990	1991
POPULATION				
1	Political relaunch	N		
2	National population council		O	
3	Draw up strategy and action plans	N		
4	Contraceptive social marketing program extension	O	N	N
5	PPAG expansion	O	O	N
6	MOH FP service points functioning (supplies, training)	O		
7	MIS/performance monitoring/incentives		N	
8	IEC plan (public sector)		O/N	
9	Aid coordination (USAID/UNFPA/IDA next projects)	N		
HEALTH				
A.	**Management**			
1	MOH reorganization + senior appointments	O		
2	Decentralization of authority		N	N
3	Strengthening of regional staff		N	N
4	MIS/performance monitoring/incentives	N		
5	Revival of supervision		N	
6	Formalize coordination with NGOs	N		
B.	**Drugs**			
7	Budget to meet needs and restock	O	N	N
8	Procurement process		N	
9	Price rationalization	O		
10	Prevention of expiry	N		
11	100% fee retention by MOH	N		
12	Cash and carry scheme	N		
13	MOH staff consumption of drugs		N	
C.	**Services**			
14	PHC targets + service delivery plans	O/N		
15	Expanded program on immunization	O	O	O
16	Oral rehydration therapy campaign	O	O	
17	Improving service quality: level B training	O		
18	Improving service quality: level B re-equipment	O		
19	Improving service quality: reallocating personnel		N	
20	Improving service quality: district hospital rehab		O	O

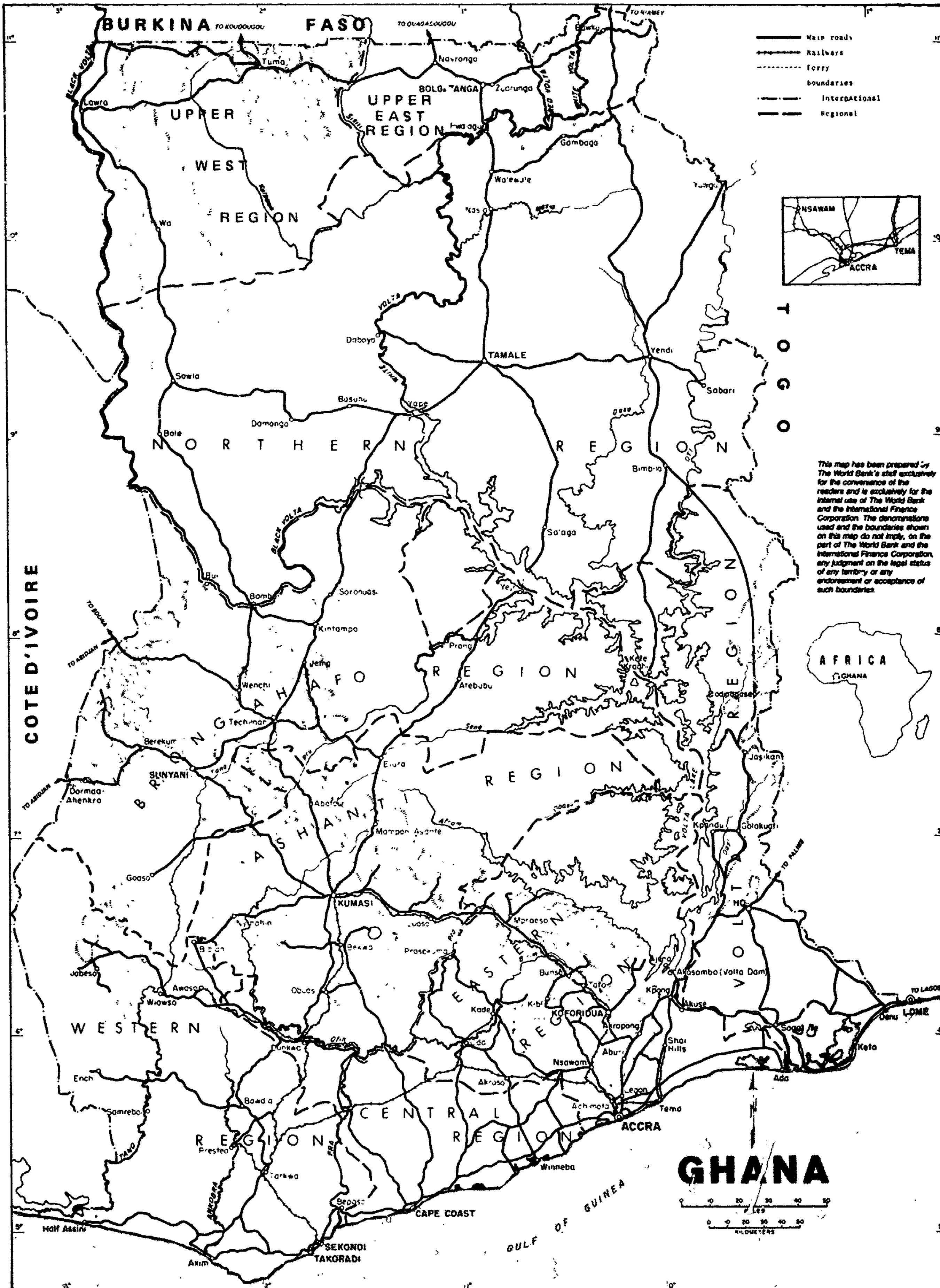
ANNEX

Table 11
Page 2

		1989	1990	1991
21	Improving service quality: Korle Bu maternity block	O		
22	Mobility/outreach: fix 4-wheel vehicles	N		
23	Mobility/outreach: buy motorcycles	N		
24	Extending service: completions level B	O	O	O
25	Extending service: long-term investment plan	N		
D.	Finance			
27	PHC budget	O	N	N
28	Items 2-5: guaranteed releases	N	N	N
29	Tighter fee collection		O	
30	Aid mobilization (donor meeting)	N		
NUTRITION				
1	Define better strategy (community-based)		N	
2	Target remaining supplementary feeding	N		
3	Replace lost (CRS) supplementary feeding		N	
4	Hungry season food-for-work programs			N

Notes: 1. O = Ongoing
2. N = New

3. Letters are placed in years of major effort


BURKINA FASO
TO KOUDOUGOU
TO OUAGADOUGOU
TO NIAMEY
Main roads
Railways
Ferry
boundaries
International
Regional
UPPER WEST REGION
UPPER EAST REGION
NORTHERN REGION
BRONG AHAFO REGION
ASHANTI REGION
EASTERN REGION
VOLTA REGION
WESTERN REGION
CENTRAL REGION
COTE D'IVOIRE
TOGO
BLACK VOLTA
WHITE VOLTA
RED VOLTA
VOLTA
VOLTA LAKE
Lawra
Tumu
Navrongo
BOLGATANGA
Bawku
Zuarungu
Gambaga
Walewale
Nasia
Yagu
Wa
Daboya
TAMALE
Yendi
Sabari
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Yapei
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Kintampo
Yeji
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Wenchi
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Bekwai
Obuasi
Awaso
Wiawso
Jabesa
Bunso
Tafo
Kibi
Kade
KOFORIDUA
Kpong
Akosombo (Volta Dam)
Akuse
Shai Hills
Akropong
Aburi
Nsawam
Akroso
Legon
Achimota
ACCRA
Tema
Ada
Keta
Denu
LOME
TO LAGOS
TO PALIME
Ho
Kpandu
Golokuati
Jasikan
Dodi
Kete Krachi
Dunkwa
Bawdia
Enchi
Samreboi
Prestea
Tarkwa
Bogoso
CAPE COAST
Winneba
SEKONDI
TAKORADI
Axim
Half Assini
TO ABIDJAN
TO BOUNA
TANO
ANKOBRA
PRA
OFIN
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MARCH 1987