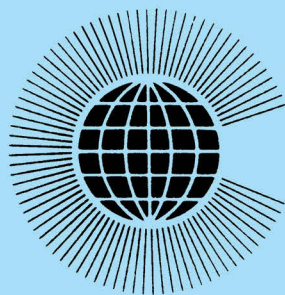


Pharmaceutical Manufacture and Formulation in the Commonwealth



Commonwealth Secretariat

Pharmaceutical Manufacture and Formulation in the Commonwealth

BY

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PREFACE

The study was undertaken to prepare an inventory of pharmaceutical manufacturers and pharmaceutical packaging plants in the developing member countries of the Commonwealth. Some basic economic indicators and health-related statistics have also been included in the study. In addition, pharmaceutical data in respect of qualified personnel, educational institutions, distribution channels, total and state sector consumption and production figures have been obtained and/or estimated for each country.

The study has revealed the gross disparities on health expenditures, drug consumption and pharmaceutical production in the low income developing countries compared with those in the industrialised countries. Similar disparities were seen in relation to the various regional groups.

Recommendations are made for action on the part of individual countries. Proposals have also been made for regional co-operation where it can be productive and results-oriented. Specific attention has been drawn to the role of the Commonwealth Secretariat for taking action to organise and assist the countries and regions in the implementation of the recommendations.

The overall objective of the study is that the material is used as a basis for in-depth discussion by the decision-makers in pharmaceutical management, administration and profession in the Commonwealth countries in order to develop pharmaceutical policies. The data from the 49 Commonwealth countries can also be used for planning the development of the pharmaceutical industry in other developing countries.

1. Introduction

- 1.1 The Commonwealth Health Ministers at their meeting in Ottawa in October 1983 recommended that "the Secretariat or the Commonwealth Pharmaceutical Association (CPA) should establish an inventory of drug manufacturers and drug packaging plants within the Commonwealth, particularly in the developing countries, in order to assist regional groups making bulk purchase arrangements or planning regional manufacturing and packaging programmes, where these are desirable". The CPA was commissioned to undertake this project funded by the Commonwealth Fund for Technical Cooperation. Dr. J.N. Banerjee, President of CPA and Dr. R.A. Khan, a former adviser to the United Nations Industrial Development Organisation (UNIDO) and World Health Organisation (WHO), were appointed as consultants.
- 1.2 In accordance with, and in order to give effect to, the recommendation, it was felt necessary as a primary step to assess the pharmaceutical needs of the Commonwealth developing countries in relation to the human and material resources at the disposal of the countries concerned. A questionnaire was devised in two Parts, A and B, to collect the requisite data on each country and details on the pharmaceutical industrial units respectively. The questionnaire was circulated by the Commonwealth Secretariat to all the 49 member countries, and to the associated states and dependencies. The CPA sent the questionnaire to its member associations and national and international pharmaceutical manufacturers' associations. This data was supplemented by visits to WHO, United Nations Conference on Trade and Development (UNCTAD) and International Federation of Pharmaceutical Manufacturers Association (IFPMA) in Geneva, UNIDO in Vienna, and the Association of British Pharmaceutical Industry Association (ABPI) in London, where valuable information was collected.
- 1.3 In anticipation of the response from countries and associations to the questionnaire, extensive study was made of the available Commonwealth Secretariat^(1,2,3), United Nations⁽⁴⁾, World Bank⁽⁵⁾, International Monetary Fund (IMF)⁽⁶⁾, WHO⁽⁷⁾ UNIDO⁽⁸⁾, and UNCTAD^(9,10) reference materials, reports and statistics. Considerable data has, therefore, thereby has been collected on almost all the Commonwealth countries for this purpose. This data was transcribed on a separate sheet for each country and was compared with the replies received, and suitably amended and updated accordingly. The final data was then referred to each country for confirmation, with the stipulation that in the event of no answer being received from the country concerned, the data as prepared would be included in the report. Where further amendments were received, these have been incorporated.

2. Basic Indicators and Pharmaceutical Data

2.1 The response of the countries to the questionnaire was prompt and encouraging. Forty out of 49 member countries and two associated countries returned the questionnaire completed with as much information as was available. For the purpose of this study, the basic indicators and pharmaceutical data have been put in order of the income levels of the countries as follows:

- (a) Low Income, GNP per head, less than US\$500
- (b) Lower Middle Income, GNP per head, between US\$500 and US\$1000
- (c) Upper Middle Income, GNP per head, over US\$1000
- (d) Industrialised (developed countries)

In order to assess the true pattern, on a national and regional basis, it was considered essential to estimate the drug requirements as well as the financial capability of the countries. In addition, therefore, to studying the population and health indicators, the total national budget (expenditure), health budget, the gross national product (GNP) etc. were also needed. The ratios between these parameters and their inter-relation were also considered important for drawing conclusions for regional co-operation in drug supply and/or the necessity of local pharmaceutical production.

2.2 A table giving basic health and pharmaceutical indicators is given in Annex 1. Three letters are shown in parentheses, '(A)' refers to data confirmed by 17 countries, '(B)' relates to information prepared from replies sent by 23 countries and '(C)' gives 9 countries from whom no information was received through the governments concerned and the data was collected from sources indicated in the references (Annex 6). In order to find out the year of a specific data, reference should be made to individual country profiles presented in Annex 4.

3. Inventory of Pharmaceutical Manufacturers

3.1 The replies to Part B of the questionnaire came from 30 developing countries which gave production data from 125 manufacturers. The names and addresses of these manufacturers together with the range of products e.g. antibiotics, vitamins, etc. and the dosage form e.g. tablets, injections etc. are presented in Annex 3. It appears that almost all the units are engaged in formulating finished dosage forms except a few units in the Bahamas, Bangladesh, Jamaica and Singapore which have primary production. The majority of the units are subsidiaries or joint enterprises with transnational companies. Sixty per cent of the manufacturing companies report a turnover of over US\$1 million each. The rest are mostly in the US\$100,000 turnover group. A few units produce injectable products, and antibiotics products are made by about 30 per cent of the

companies. The total number of employees are reported to be around 14,500 in 114 companies, who provided this information.

- 3.2 The above inventory does not take into consideration the pharmaceutical manufacturers in Australia, Britain, Canada, New Zealand and India. India alone is reported to have 5,200 licensed manufacturers, which is the highest number in the Commonwealth including the industrialised developed countries. The preparation of a long list was not considered feasible for the above five countries. The details of manufacturers can be obtained from the trade associations of pharmaceutical manufacturers in these countries whose addresses are as follows:

INDIA

Indian Drug Manufacturers' Association (IDMA)
102B Poonam Chambers
Dr. Annie Besant Road, Worli
Bombay - 400 018

The Pharmaceutical & Allied Manufacturers
and Distributors Association Ltd (PAMDAL)
c/o Bombay Chamber of Commerce and Industry
P.O. Box 473
Bombay 1, BR

Organisation of Pharmaceutical Producers of India (OPPI)
Cooks Building
Dr. Dadabhoy Naoroji Road
Bombay 400 001

Indian Pharmaceutical Guide
Pamposh Publications
506 Ashok Bhavan
93 Nehru Place
New Delhi 110019

AUSTRALIA

Australian Pharmaceutical Manufacturers'
Association (APMA)
77 Berry Street
North Sydney NSW 2060

BRITAIN

The Association of the British
Pharmaceutical Industry (ABPI)
12 Whitehall
London SW1A 2DY

CANADA

Pharmaceutical Manufacturers Association
of Canada (PMAC)
500-111 Prince of Wales Drive
Ottawa
Ontario K2C 3T2

NEW ZEALAND

Pharmaceutical Manufacturers' Association
8 Floor, Cumberland House
237-241 Willis Street
Wellington 1

- 3.3 In the light of the material collected through the questionnaire and additional information, Commonwealth countries are grouped in Annex 4 in terms of their status in pharmaceutical production as classified by UNIDO⁽¹¹⁾.
- 3.4 In response to Part B, 23 production units from 13 countries have expressed the need for assistance from the Commonwealth Secretariat and other international organisations in the following fields:
- (a) technical aid in production (formulation of tablets and capsules), quality control (laboratories and methods), factory maintenance and good manufacturing practices;
 - (b) provision of technical personnel and training;
 - (c) new product development and techniques e.g. film coating of tablets and production of injectables;
 - (d) financial aid in expansion of existing units and setting up of new units;
 - (e) import of raw materials and equipment;
 - (f) export promotion techniques; and
 - (g) collaboration with multinational companies.

4. Analysis of Economic and Health-Related Indicators

- 4.1 The total population of all the Commonwealth countries was estimated to be about 1,136 million, of which the 12 low income countries accounted for about 900 million with an average GNP of about US\$252 per head. The four industrialised countries with a population of about 100 million had an average GNP of about US\$10,625 per head, almost 40 times that of the low income countries.
- 4.2 Health expenditure per head by Central Governments of the low income group is about US\$1.10, as against the similar

expenditure in the industrialised countries of about US\$375.50 per head. The average life expectancy in the former is 51 years (lowest 38 years) against a steady 74 years in the latter. The average population covered by one physician is about 4,200 in the low income countries, whereas one physician covers 600 persons in the developed countries.

4.3 A similar analysis on health expenditure as above for the lower and upper middle income groups has not been attempted due to great divergence in per head figures among countries of the same income group. The small population island countries show little agreement in per head health expenditure or other health-related indicators amongst themselves. In the lower middle income group, the health expenditure per head ranges from US\$1.50 to US\$75.00. When correlated with GNP per head, the health expenditure for all income groups shows a low of 0.2 to a maximum of 9.3 per cent, compared with 1.6 to 5.9 per cent in the industrialised countries.

4.4 It is difficult to draw precise conclusions from the above data, except in general terms. The figures for health expenditure relate to Central Government budgets in this study. In small countries, the Central expenditure is in fact the total expenditure, but in countries of larger area and population e.g. India, Bangladesh, Nigeria etc, the figure for Government health expenditure can be substantially enhanced by taking into consideration the expenditure provided for and incurred by the provincial and local governments and authorities.

5. Analysis of Pharmaceutical Data

5.1 The total number of pharmacists in the Commonwealth countries is estimated to be about 251,572 out of which 180,000 are in India and the industrialised countries have 63,511. The average population per pharmacist is estimated as follows:

Low Income Countries	95,000
Lower Middle Income Countries	32,400
Upper Middle Income Countries	8,700
Industrialised Countries	4,000

Twenty out of the 49 Commonwealth countries do not have any pharmaceutical educational institutions. On a regional basis, Asia has 124, of which 116 are in India. The number of schools of pharmacy in Africa are 19, in the Caribbean 7, in the Pacific 1 (Papua New Guinea) and in the industrialised countries 34.

5.2 It is difficult to give a meaningful analysis of the distribution of pharmacies in the Commonwealth, as the number reported by 42 countries are not based on uniform or standard considerations of professional supervision of the retail outlets. On a random basis, however, the total number of pharmacies in the 42 countries (Bangladesh and Nigeria did not give figures) is estimated to be 214,833 out of which India is

reported to have 182,000 and Sri Lanka 5,800 in the low income group and the four industrialised countries have 24,547. Perhaps in a subsequent study, this data can be collected on a more sustained basis.

6. Consumption and Production of Pharmaceuticals

6.1 This study deals with consumption and production in terms of monetary values only, based on local currencies converted into US dollars at approximate rates of exchange in the particular year. No attempt has been made in this study to evaluate the disease patterns as reference can be made to other Commonwealth documents on health. In the present restricted study, it was also not possible to go into details of consumption of pharmaceuticals by therapeutic groups or actual product items, except in a broad and general manner in a reference to production units in the inventory of pharmaceutical manufacturers in Annex 4. The figures for consumption are derived from imports, budgetary provisions and expenditure and such other resources which were available. They should therefore not be taken as absolute values, but as a fair approximation of the total demand and/or market size. Similarly, the production figures, as far as possible, have been obtained and/or estimated in terms of wholesale prices.

6.2 The analysis of consumption and production is briefly related to economic and health-related indicators on the basis of income groups of countries. The detailed analysis is presented by dividing the countries into six groups, five of them on a geographical basis i.e. Asia, Africa, Caribbean, Pacific and Europe, and the sixth group consists of industrialised countries taken together irrespective of geographical placement. To put the industrialised countries together with developing countries in their geographical groups would have created anomalies in the statistical evaluation of the data.

6.3 The total drug consumption was reported and/or obtained from 44 countries and it amounted to about US\$8,651 million. Thus, the overall per head consumption in the Commonwealth is US\$7.65. The developing countries consumed US\$2.66 per head on an average, distributed as follows:

Low Income	US\$ 2.36
Lower Middle Income	US\$ 3.55
Upper Middle Income	US\$10.25

In developing countries, production met 67 per cent of consumption, while in the industrialised countries, production was 113 per cent of the demand. The overall Commonwealth figures showed production meeting 98.5 per cent of the demand.

7. Regional Analysis of Data

7.1 The data on the six regions of the Commonwealth is given in Annex 5 and includes population, GNP per head, Central (Government) health expenditure (CHE) as a percentage of the total Central Government expenditure (CE), CHE per head as a percentage of GNP, Total Drug Consumption as a percentage of GNP, and the production status in accordance with Annex 4.

7.2 The table below summarises on a regional basis the estimated data on consumption and production and their relationships.

<u>Region</u>	<u>Consumption US\$ million</u>	<u>Consumption GDP Per Head US\$</u>		<u>Production US\$ million</u>	<u>Production/ Consumption</u>
Asia	2,134 (7)	1.01%	2.84	1,705 (6)	80%
Africa	504 (13)	0.37%	2.06	130 (9)	26%
Pacific	11 (7)	0.26%	2.35	1 (3)	4%
Caribbean	80 (11)	0.65%	15.58	11 (5)	14%
Europe*	27 (2)	0.83%	25.71	2 (2)	7%
Industrialised	5,895 (4)	0.61%	58.90	6,673 (4)	113%
<hr/>					
TOTAL	8,651 (44)		7.65	8,521 (29)	

Figures in parentheses denote number of countries which supplied the data indicated.

* Cyprus and Malta only.

8. Findings

8.1 In the light of the above data and its analysis, in addition to the role of local production the following factors are to be considered in detail while planning a policy and producing a viable programme of drug supply:

- estimation of requirements of essential drugs,
- rational utilisation of drugs,
- pricing of drug supplies,
- ensuring the quality and safety of imported and locally - produced drugs,
- organising an efficient system of drug delivery and distribution at all levels and investment in its infrastructure.

8.2 The figures on health expenditure in relation to GNP clearly show that the low income group countries, where the need is most, spend a very small proportion in comparison with the

industrialised countries. The middle income group have better allocation of resources out of their GNP for this purpose. Some Caribbean countries spend more than 5 per cent of their GNP, the target set by WHO to achieve health for all by the year 2000⁽¹²⁾.

- 8.3 It is difficult to make a uniform evaluation of monetary values for consumption and production for all the developing countries. Each country has different exchange rates which change frequently in relation to the US dollar. This, in turn, has to be related to other economic factors, most important being the price structure of commodities and necessities. The consumption per head of drugs, therefore, has to be seen on a regional basis where some agreement is possible as shown by its percentage of GDP for each region described in 7.2.
- 8.4 Due to incomplete professional data on the number and types of pharmacies in the Asian (excluding India) and African regions, it is not possible to make suggestions for standardising the number of pharmacies in each region. The need of pharmacies having a professional base has been stressed by the Commonwealth Pharmaceutical Association. It is therefore important to look at the number of pharmacists in each developing country. India appears to have a satisfactorily high number of registered pharmacists but the figure includes a sizeable number of diploma pharmacists. Maldives is the only country in the Asian region which does not have a School of Pharmacy.
- 8.5 The Commonwealth Health Ministers have wisely stressed the important role of local production and packaging in the drug supply system on a country and/or regional basis. In the light of the data collected, it is advisable to look at each of the five regions. The industrialised region does not merit any consideration except for comparison purposes.

8.5.1 African Region

The 15 countries of the region have some types of production facilities, except Botswana and Swaziland. The vast expanse of this region with countries of almost similar economic pattern would, in theory, suggest a regional co-operation in drug supply. However, in practice, this does not appear to be so, though numerous efforts have been made by international and pan-African organisations. The reason for this is that pharmaceutical supply systems have developed individually in each country after the break-up of the Federation of Rhodesia and Nyasaland and the East African Community. The most populous country, Nigeria (91 million) has 35 manufacturers, producing about US\$100 million worth of drugs. They meet only 30 per cent of consumption. There is no primary production.

8.5.2 Asian Region

The countries of the Asian region are better placed than the other regions since 80 per cent of the consumption of the region is met by production. Except for Maldives, all countries have production units. India is conspicuous with a well developed pharmaceutical industry. The region has three countries which have primary manufacture in addition to a formulation industry, two of them, India and Singapore, with significant export performance.

8.5.3 Caribbean Region

Out of 12 countries in the region, 7 have 17 pharmaceutical manufacturing plants (Annex 4), of which Jamaica has seven production units. Bahamas has one primary production plant. Several missions have been undertaken by the Commonwealth Secretariat, UNCTAD, UNIDO, WHO and the Non-Aligned Movement to study the existing Caribbean Community Secretariat (CARICOM) pooled purchasing arrangement on drug supply. In accordance with the data in para 7.2 of this report, the present contribution of local production is 14 per cent of consumption. The average of developing countries of the Commonwealth for production input is 67 per cent (Para 6.3).

8.5.4 European Region

The two island countries of Cyprus and Malta, which comprise this region, have a total population of over a million. Their economic status assures them a good GDP and the consumption of drugs is US\$9.80 millions and US\$16.80 millions respectively, of which the production contributes 6 per cent. As part of Europe, these countries may not feel the necessity of further local production as drug imports must be relatively easier. However, they have the nucleus of a pharmaceutical industry, apparently, on a secure basis. They can easily expand the local manufacture if a real need is identified.

8.5.5 Pacific Region

The Pacific region has 5 countries producing a few items at small Government-run production units. The rest have no production facilities. On a regional basis, only 4 per cent of the requirements are met by production. Only one country, Papua New Guinea has a population of over 3 million. Nauru and Tuvalu with populations of less than 10,000 each cannot support local production.

8.6 Safety and Quality Surveillance

The most important aspect of a drug supply system is the safety and quality of both imported and locally-produced drugs. More than half of the Commonwealth developing countries do not have drug control laboratories (Annex 2). It is doubtful if some of them have other (drug control facilities, such as drug legislation), registration and inspection. The recent Seminar

organised by the CPA on Drug Supplies and Pharmaceutical Services, held in Delhi in March 1985, made exhaustive recommendations on the quality surveillance of pharmaceutical preparations⁽¹³⁾. Particular reference has been made to WHO Reports on the Specifications for Pharmaceutical Preparations⁽¹⁴⁾, which contain proposals for the setting up of model drug-testing laboratories. Most countries maintain liaison with WHO on the procurement of standard substances and reagents required for drug testing. The WHO Reports also give details of the WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce⁽¹⁵⁾. Monographs on the specifications of pharmaceutical preparations can be found in the International Pharmacopeia published by WHO⁽¹⁶⁾. Regional arrangements for drug control or drug-testing have not materialised so far.

9. Recommendations

9.1 National

- 9.1.1 In regard to recommendations for individual countries, it must be emphasised at the outset that the names of countries below are purely examples for action on a national level. Other developing countries with similar conditions and problems could be substituted.
- 9.1.2 Most developing countries in the Commonwealth should take action in providing pharmaceutical education and training, organise an efficient drug supply system with a positive role for local production and adequate quality surveillance including drug registration, inspection and testing laboratories.
- 9.1.3 Papua New Guinea and Uganda should establish a School of Pharmacy each of a graduate level.
- 9.1.4 A detailed study on the expansion of the existing production facilities should be undertaken in Papua New Guinea.
- 9.1.5 Fiji should develop their small-scale production plant to maximise the manufacture of simple pharmaceutical preparations.
- 9.1.6 Nigeria should consider the feasibility of expansion of the formulation industry to increase the production from the present 30 per cent of consumption to a target of 90 per cent. It should also consider the possibilities of setting up primary production of pharmaceutical substances and intermediates.
- 9.1.7 Ghana and Kenya should consider assessment of the present installed and utilised capacity of their respective pharmaceutical industry in order to make full use of the capacity.
- 9.1.8 Lesotho and Mauritius should consider expansion in output of pharmaceuticals through enhanced production programmes and modernisation of equipment and amenities, in their respective plants.

9.1.9 Malaysia should consider establishing and operating adequate drug quality surveillance systems within the present Government pharmaceutical department.

9.2 Regional

9.2.1 Countries should collaborate within each region on matters of drug quality surveillance, particularly on drug testing in their laboratories and setting up of regional reference laboratories. The function of these laboratories will not only be to exchange technical information on methods and procedures of analysis, but also to procure reference standards and reagents.

9.2.2 The Caribbean region should strengthen the CARICOM drug purchasing arrangement through larger input from the pharmaceutical industry. The total drug consumption of US\$80 millions is large enough to warrant an increase in production in the existing units and setting up new plants.

9.2.3 The African region plans should be prepared for to provide pharmaceutical education in Kenya and Zimbabwe for Botswana, Lesotho and Mauritius. Ghana and Nigeria should take candidates from Gambia and Sierra Leone. Similarly, the small countries in the Pacific region should obtain pharmaceutical education in Australia and New Zealand.

9.3 Commonwealth Secretariat

9.3.1 The Commonwealth Secretariat should assist in the preparation of projects on the programmes recommended on a national and regional basis in 9.1 and 9.2 above.

9.3.2 The Secretariat should undertake an evaluation of the results achieved on the reports and recommendations made by several UN and Commonwealth agencies on drug supply policies in the pharmaceutical sector in the Caribbean region. Based on the above evaluation, a detailed plan should be prepared in order to develop the pharmaceutical industry in the Caribbean countries with the defined target of meeting 90 per cent of the regional demand.

9.3.3 The Secretariat should request CPA to undertake a survey of pharmaceutical educational institutions in the Commonwealth with a view to strengthening their standards of teaching and facilities for practical work.

9.3.4 The Secretariat should undertake a study to assess the effects of prices of imported and locally manufactured drugs on the overall operation of drug supply.

9.3.5 The Secretariat should organise country and regional training workshops and seminars on the management of drug supply systems, prepare training manuals and disseminate information on this subject.

- 9.3.6 The Secretariat should collaborate with CPA in preparation of programmes for rational and effective utilisation of essential drugs through the preparation of national and regional formularies.

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Miss A. Wehrli, WHO, Geneva
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Mr. James C. Matthews, ABPI, London
Mr. Anthony A. Willis, ABPI, London
Mr. C.M. Pintaud, Sandoz AG, Basle.

CONSOLIDATED DATA

COUNTRIES	Population (thousands)	GNP (per capita US\$)	GDP (US\$ millions)	National Budget (Expenditure) (US\$ millions)	Health Budget (US\$ millions)	Physicians (Doctors)	Life-Expectancy (Years)	Pharmacists	Pharmacies	Pharmaceutical Educational Institutions	DRUG CONSUMPTION				Production Unit	Annual Production (US\$ millions)	Drug Control Laboratories
											Total (US\$ millions)	Public (US\$ millions)	Per Head (US\$)	Per cent Production			
LOW INCOME																	
1 Bangladesh	92,900	140	10,940	2,004	98.4	7,146	48	197	N/A	6	102.50	N/A	1.10	90.0	34	94.5	1
2 Malawi	6,500	210	1,320	2,795	13.1	160	44	26	26	1	6.00	0.92	0.92	18.0	2	1.10	1
3 Uganda	13,500	230	8,630	251.7	11.6	503	47	28	28	-	2.16	0.16	0.16	-	2	-	1
4 India	717,000	260	150,760	26,700	536.0	200,000	55	180,000	182,000	116	1,874.00	400.00	2.61	91.5	5,200	1,418.00	10
5 Maldives	170	260	22	20.4	1.2	13	52	2	11	-	0.75	N/A	4.40	-	-	-	-
6 Tanzania	19,800	280	4,530	1,040	36.8	1,127	52	200	170	1	40.00	32.00	2.02	10.0	4	4.00	1
7 Sri Lanka	15,200	320	4,400	2,070	53.1	2,120	69	460	5,800	1	20.00	6.00	1.35	10.0	14	2.00	1
8 Vanuatu	128	350	72	32.5	3.9	23	55	6	11	-	0.48	0.48	3.75	-	-	-	-
9 Ghana	12,200	360	31,220	1,680	117.0	1,600	55	579	N/A	1	36.00	36.00	3.00	N/A	5	N/A	1
10 Gambia	700	360	226	66.9	5.4	45	42	3	72	1	1.11	0.37	1.58	-	1	-	-
11 Kenya	18,100	390	5,340	1,466	114.3	2,300	57	403	213	2	27.00	7.00	1.50	20.0	20	6.00	2
12 Sierra Leone	3,200	390	1,130	168.4	11.6	197	38	16	88	1	13.00	1.30	4.06	15.0	1	1.90	-
LOWER MIDDLE INCOME																	
13 Lesotho	1,400	510	300	N/A	N/A	75	53	4	N/A	-	N/A	N/A	N/A	N/A	1	N/A	-
14 Tonga	100	520	62	16.3	2.1	30	58	3	6	-	0.28	0.28	2.75	-	1	-	-
15 Tuvalu	8	570	4.6	N/A	N/A	4	59	1	N/A	-	N/A	N/A	N/A	-	1	-	-
16 St Vincent & Grenadines	128	620	59	25.3	2.7	47	67	23	7	-	0.72	0.26	5.59	-	-	-	-
17 Zambia	6,000	640	3,830	1,360	105	782	55	135	100	1	19.00	14.00	3.20	25.0	11	5.00	1
18 Western Samoa	159	650	120	20.0	2.33	51	65	6	4	-	0.18	N/A	1.10	-	-	-	-
19 Solomon Islands	200	660	141	39.2	2.10	31	54	4	9	-	0.60	0.60	3.00	4.0	1	0.01	-
20 Guyana	800	670	436	247	10.7	108	70	32	29	-	6.00	4.00	7.50	40.0	2	2.40	-
21 Mauritius	967	697	845	27.3	18.5	69	69	85	79	-	5.17	1.60	5.00	20.0	2	1.10	-
22 Dominica	100	710	57	50	7.5	22	58	29	14	1	0.62	0.30	6.20	-	1	-	-
23 St Lucia	100	720	133	48	6.7	43	67	11	61	1	4.30	1.30	43.00	-	-	-	-
24 St Christopher & Nevis	45	750	59	20.3	3.1	20	70	21	13	-	0.74	0.24	16.44	-	-	-	-
25 Grenada	100	760	73	78.2	4.9	37	69	36	45	1	1.30	0.37	13.00	-	-	-	-
26 Kiribati	50	770	24	13.7	1.37	26	52	1	1	-	0.37	0.37	7.30	2.0	1	0.07	-

(A) Data provided, confirmed by countries

(B) Data provided by countries

(C) Estimated data

Year of specific data can be found in individual Country

Profiles in Annex 4

N/A indicates Not Available

CONSOLIDATED DATA (CONTINUED)

COUNTRIES	Population (thousands)	GNP per capita (US\$)	GDP (US\$ millions)	National Budget (Expenditure) (US\$ millions)	Health Budget (US\$ millions)	Physicians (Doctors)	Life-Expectancy (Years)	Pharmacists	Pharmacies	Pharmaceutical Educational Institutions	DRUG CONSUMPTION				Production Plant	Annual Production (US\$ millions)	Drug Control Laboratories
											Total (US\$ millions)	Public (US\$ millions)	Per Head US\$	Per cent Production			
27 Papua New Guinea	3,300	820	2,350	777	75.5	283	53	33	17	1	3.50	3.00	1.06	10.0	6	0.30	-
28 Zimbabwe	7,500	850	5,900	3,050	118.2	1,140	56	265	96	1	324.00	N/A	3.50	40.0	11	10.4	-
29 Nigeria	90,600	860	71,720	5,500	136.0	7,219	50	27,800	N/A	9	N/A	N/A	3.56	30.0	35	100.0	3
30 Botswana	900	900	1,024	280	16.6	90	50	10	N/A	N/A	N/A	N/A	-	-	-	-	-
31 Swaziland	700	940	595	161	10.3	65	54	18	13	-	3.80	1.60	5.43	-	-	-	-
32 Belize	159	953	154	54.1	4.7	100	66	3	31	1	1.70	0.34	10.50	10.0	1	0.15	1
UPPER MIDDLE INCOME																	
33 Jamaica	2,200	1,330	3,180	1,400	108.5	2,830	73	151	N/A	2	18.10	7.00	8.22	21.00	7	3.80	1
34 Antigua & Barbuda	100	1,740	115	46	5.7	36	69	25	17	-	1.20	0.55	12.00	-	-	-	-
35 Malaysia	14,500	1,860	25,870	11,464	466.4	1,833	67	809	200	1	103.50	19.00	7.14	20.0	13	21.00	1
36 Fiji	700	1,950	1,275	376	30.3	261	72	3	48	-	5.16	1.72	7.37	-	1	-	-
37 Seychelles	65	2,153	144	60	5.5	41	70	6	4	1	0.42	0.42	6.45	20.00	1	0.08	-
38 Barbados	300	2,900	1,152	378.5	46.6	207	71	103	103	1	10.50	2.25	35.00	10.5	2	1.10	1
39 Malta	400	3,800	1,121	522.7	48.0	860	72	307	158	2	9.80	2.50	24.50	5.0	2	0.50	1
40 Bahamas	200	3,830	1,074	422	57.0	148	69	46	21	1	N/A	N/A	N/A	N/A	2	N/A	1
41 Cyprus	649	3,296	2,094	654	39.0	729	74	359	251	1	16.80	5.60	25.85	5.6	2	0.94	2
42 Singapore	2,500	5,910	14,650	7,734	181.1	2,174	72	409	133	1	30.00	6.50	12.00	80.0	19	17.00	1
43 Trinidad & Tobago	1,100	6,840	6,970	2,704	235.6	224	68	415	411	1	34.80	34.80	31.63	9.0	2	3.00	1
44 Brunei	215	N/A	7,744	320	35.0	130	71	6	4	-	3.40	3.00	15.80	5.0	1	0.15	-
45 Nauru	8	N/A	98	97	1.9	10	61	2	2	-	1.36	1.36	N/A	-	-	-	-
INDUSTRIALISED																	
46 New Zealand	3,260	6,764	22,623	12,747	1,726.3	7,750	73	3,200	1,230	2	316.00	171.00	96.78	50.0	45	153.00	1
47 Britain	56,500	9,660	480,000	177,140	27,140	87,000	74	31,955	11,597	17	3,128.00	2,507.00	55.36	75.0	500	4,180.00	3
48 Australia	15,200	11,140	164,210	41,875	4,184	26,000	74	10,000	5,600	6	1,052.50	675.00	69.24	70.0	142	940.00	N/A
49 Canada	25,150	12,983	302,909	79,503	4,596	45,860	75	18,356	6,120	9	1,400.00	700.00	57.00	70.0	251	1,400.00	2

FOOTNOTES: (A) Data provided, confirmed by countries (B) Data provided by countries (C) Estimated data

Year of specific data can be found in individual Country Profiles in Annex 4
N/A indicates Not Available

REGIONAL ANALYSIS

	Population	GNP per head US\$	CHE % of CE	CHE per head US\$	CHE % of GNP	Drug Consu- mption % GNP	Pharm. Prod. Group
I AFRICA							
1. Botswana	900	900	5.9	18.44	2.0	N/A	I
2. Gambia	700	360	8.1	7.70	2.1	0.4	II
3. Ghana	12,200	360	7.0	9.59	2.7	0.8	III
4. Kenya	18,100	390	7.8	6.31	1.6	0.4	III
5. Lesotho	1,400	510	N/A	N/A	N/A	N/A	II
6. Malawi	6,500	210	4.7	2.02	1.0	0.4	III
7. Mauritius	1,000	693	8.7	29.37	2.6	0.7	III
8. Nigeria	90,600	860	2.5	1.50	0.2	0.4	III
9. Seychelles	65	2,153	9.2	84.62	3.4	0.3	II
10. Sierra Leone	3,200	390	6.9	3.63	0.9	1.0	III
11. Swaziland	700	940	6.4	14.71	1.6	0.6	I
12. Tanzania	19,800	280	3.5	1.86	0.7	0.7	III
13. Uganda	13,500	230	4.6	0.86	0.4	0.1	III
14. Zambia	6,000	640	7.7	17.50	2.7	0.5	III
15. Zimbabwe	7,500	850	3.9	15.76	1.9	0.4	III
II ASIA							
1. Bangladesh	92,900	140	4.7	1.06	0.8	0.8	IV
2. Brunei	215	N/A	10.9	62.80	N/A	N/A	II
3. India	717,000	260	2.0	0.75	0.3	1.0	IV
4. Malaysia	14,500	1,860	4.1	32.16	1.7	0.4	III
5. Maldives	200	260	5.9	6.00	2.3	1.4	I
6. Singapore	2,500	2,910	2.3	72.44	1.2	0.2	IV
7. Sri Lanka	15,200	320	2.6	3.49	1.1	0.4	III
III CARIBBEAN							
1. Antigua & Barbuda	100	1,740	12.4	57.00	3.3	0.7	I
2. Bahamas	200	3,830	13.5	285.00	1.4	N/A	IV
3. Barbados	300	2,900	12.3	155.33	5.4	1.2	III
4. Belize	160	953	8.7	29.37	3.1	1.1	II
5. Dominica	100	710	15.0	75.00	1.1	0.9	II
6. Grenada	100	760	6.2	49.00	6.4	1.7	I
7. Guyana	800	670	4.3	3.38	2.0	1.1	III
8. Jamaica	2,200	1,330	7.8	49.30	3.7	0.6	IV
9. St Christopher & Nevis	45	750	15.3	68.89	9.2	2.2	I
10. St Lucia	100	720	4.0	67.00	9.3	6.0	I
11. St Vincent & The Grenadines	128	630	10.7	21.09	3.3	0.9	I
12. Trinidad & Tobago	1,100	6,840	8.7	214.18	3.1	0.5	III

REGIONAL ANALYSIS (continued)

	Population	GNP per head US\$	CHE % of CE	CHE per head US\$	CHE % of GNP	Drug Consu- mption % GNP	Pharm. Prod. Group
IV EUROPE							
1. Cyprus	650	3,296	6.0	60.00	1.8	0.8	III
2. Malta	400	3,800	9.2	120.00	3.2	0.7	III
V PACIFIC							
1. Fiji	700	1,900	8.1	43.30	2.3	0.4	II
2. Kiribati	50	770	10.0	28.00	3.6	1.0	II
3. Nauru	8	N/A	2.0	237.50	N/A	N/A	I
4. Papua New Guinea	3,300	820	9.7	22.87	2.8	0.1	II
5. Solomon Islands	200	660	5.3	10.50	1.6	0.3	II
6. Tonga	100	520	12.9	21.00	2.4	N A	II
7. Tuvalu	8	570	N/A	N/A	N/A	N/A	I
8. Vanuatu	128	350	12.0	30.46	8.7	0.1	II
9. Western Samoa	200	650	11.6	14.65	2.3	0.2	I
VI INDUSTRIALISED							
1. Australia	15,200	11,140	10.0	275.30	2.5	0.6	IV
2. Britain	56,500	9,660	15.3	480.00	5.0	0.6	IV
3. Canada	25,150	11,320	6.4	182.70	1.6	0.5	IV
4. New Zealand	3,260	6,765	10.0	398.80	5.9	1.4	IV

NOTE: CHE indicates Central (Government) Health Expenditure
 CE indicates Central (Government) Expenditure
 Pharm. Prod. Group refers to Pharmaceutical Production Group
 N/A - Not Available.

STATUS OF PHARMACEUTICAL PRODUCTION IN COMMONWEALTH COUNTRIES

Group	Countries (49)	Asia (7)	Africa (15)	Pacific (9)	Caribbean (12)	Europe (2)	Industrialised (4)
I	No Pharmaceutical production	Maldives	Botswana Swaziland	Nauru Tuvalu Vanuatu Western Samoa	Antigua & Barbuda Grenada St Christopher & Nevis St Lucia St Vincent & the Grenadines		
	(12)	(1)	(2)	(4)	(5)		
II	State-run Production Units only	Brunei	Gambia Lesotho Seychelles	Fiji Kiribati Papua New Guinea Solomon Is. Tonga	Belize Dominica		
	(11)	(1)	(3)	(5)	(2)		
III	Formulation Pro- duction Units only (Private and State-run)	Malaysia Sri Lanka	Ghana Kenya Malawi Mauritius Nigeria Sierra Leone Tanzania Uganda Zambia Zimbabwe		Barbados Guyana Trinidad & Tobago	Cyprus Malta	
	(17)	(2)	(10)		(3)	(2)	
IV	Formulation and Primary Production Units	Bangladesh India Singapore			Bahamas (primary) Jamaica		Australia Britain Canada New Zealand
	(9)	(3)			(2)		(4)
	(49)	(7)	(15)	(9)	(12)	(2)	(4)

COUNTRY PROFILES

(Reference 2.2)

* refers to estimated data.

N/A indicates data not available.

COUNTRY

ANTIGUA AND BARBUDA

(A) COUNTRY DATA

1. Population	100,000 (1982)
2. National Budget (Expenditure)	US\$46 million (1984)
3. Health Budget	US\$5.7 million (1984)
4. Life Expectancy, years	69 (1979)
5. Infant Mortality per 1,000 live births	32 (1980)
6. Persons per hospital bed	136 (1980)
7. Physicians (Doctors)	36 (1980)
8. G.N.P. per head	US\$1740 (1982)
9. G.N.P. per head, average growth	-0.2% (1970-80)
10. G.D.P. at current prices	US\$115 million
11. Industry % of G.D.P.	10
12. Currency Exchange Rate	1 EC\$ = 0.37 US\$ (1981-84)

(B) PHARMACEUTICAL DATA

1. Pharmacists	25 (1984)
2. Pharmacies	17 (1984)
(a) Private 14 (1984)	(b) Public 3 (1984)
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$1.2 million*
(b) State Sector	US\$550,000 (1984)
(c) Per Head	US\$12.00*
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation -	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

AUSTRALIA

(A) COUNTRY DATA

1. Population	15,200,000
2. National Budget (Expenditure)	US\$41,875 million (1982)*
3. Health Budget	US\$4,184 million (1982)*
4. Life Expectancy, years	74 (1982)
5. Infant Mortality per 1,000 live births	10 (1982)
6. Persons per hospital bed	80 (1980)
7. Physicians (Doctors)	26,000 (1982)
8. G.N.P. per head	US\$11,140 (1982)
9. G.N.P. per head, average growth	2.4% (1960-82)
10. G.D.P. at current prices	US\$164,210 million (1982)
11. Industry % of G.D.P.	35 (1982)
12. Currency Exchange Rate	1 A\$ = 0.880 US\$ (1983) 1 A\$ = 1.017 US\$ (1982)

(B) PHARMACEUTICAL DATA

1. Pharmacists	10,000
2. Pharmacies	5,604
(a) Private	5,400
(b) Public	204
3. Pharmaceutical Educational Institutions	6
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$1052.5 million (1983)
(b) State Sector	US\$675 million (1983)
(c) Per Head	US\$69.24 (1983)
(d) % Met by Production	70
5. Total Annual Production	US\$940 million (1983)**
6. Local Pharmaceutical Production Units	142
(a) Formulation	137
(b) Primary Production	5
7. Government Drug Control Laboratories	1

** Source: International Monetary Fund, 1983.

COUNTRY

BAHAMAS

(A) COUNTRY DATA

1. Population	200,000 (1981)
2. National Budget (Expenditure)	US\$422 million (1985)
3. Health Budget	US\$57 million (1985)
4. Life Expectancy, years	69 (1980)
5. Infant Mortality per 1,000 live births	32 (1980)
6. Persons per hospital bed	227 (1980)
7. Physicians (Doctors)	148 (1980)
8. G.N.P. per head	US\$3830 (1982)
9. G.N.P. per head, average growth	-0.4% (1960-80)
10. G.D.P. at current prices	US\$1074 million (1979)
11. Industry % of G.D.P.	-
12. Currency Exchange Rate	1 Bah \$ = US\$1.00

(B) PHARMACEUTICAL DATA

1. Pharmacists	46 (1985)
2. Pharmacies	21
(a) Private	18
(b) Public	3
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	N/A
(b) State Sector	N/A
(c) Per Head	N/A
(d) % Met by Production	N/A
5. Total Annual Production	N/A
6. Local Pharmaceutical Production Units	2
(a) Formulation	1
(b) Primary Production	1
7. Government Drug Control Laboratories	-

COUNTRY

BANGLADESH

(A) COUNTRY DATA

1. Population	92,900,000 (1982)
2. National Budget (Expenditure)	US\$2004 million (1982)
3. Health Budget	US\$98.4 million (1982)
4. Life Expectancy, years	48 (1982)
5. Infant Mortality per 1,000 live births	136 (1980)
6. Persons per hospital bed	4450 (1980)
7. Physicians (Doctors)	7146 (1980)
8. G.N.P. per head	US\$140 (1982)
9. G.N.P. per head, average growth	0.3% (1960-82)
10. G.D.P. at current prices	US\$10940 million (1982)
11. Industry % of G.D.P.	14
12. Currency Exchange Rate	1 Taka = US\$0.042 (1982-83) 1 Taka = US\$0.037 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	197 (1978)
2. Pharmacies	N/A
(a) Private - (b) Public -	
3. Pharmaceutical Educational Institutions	6
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$102.5 million (1983)
(b) State Sector	N/A
(c) Per Head	US\$1.10
(d) % Met by Production	90
5. Total Annual Production	US\$94.5 million (1983)
6. Local Pharmaceutical Production Units	34
(a) Formulation 34 (b) Primary Production -	
7. Government Drug Control Laboratories	1

COUNTRY

BARBADOS

(A) COUNTRY DATA

1. Population	300,000 (1981)
2. National Budget (Expenditure)	US\$378.5 million (1984-85)
3. Health Budget	US\$46.6 million (1984-85)
4. Life Expectancy, years	71 (1980)
5. Infant Mortality per 1,000 live births	26 (1980)
6. Persons per hospital bed	114 (1980)
7. Physicians (Doctors)	207 (1980)
8. G.N.P. per head	US\$2,900 (1982)
9. G.N.P. per head, average growth	4.5% (1960-82)
10. G.D.P. at current prices	US\$1,152 million (1981)
11. Industry % of G.D.P.	12.2 (1981)
12. Currency Exchange Rate	1 B\$ = US\$0.50 (1983)

(B) PHARMACEUTICAL DATA

1. Pharmacists	103 (1984)
2. Pharmacies	103
(a) Private	65
(b) Public	38
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$10.5 million (1983-84)
(b) State Sector	US\$2.25 million (1983-84)
(c) Per Head	US\$35 (1983)
(d) % Met by Production	10.5
5. Total Annual Production	US\$1.1 million (1983)*
6. Local Pharmaceutical Production Units	2
(a) Formulation	2
(b) Primary Production	-
7. Government Drug Control Laboratories	1

COUNTRY

BELIZE

(A) COUNTRY DATA

1. Population	159,000 (1984)
2. National Budget (Expenditure)	US\$54.1 million (1984)
3. Health Budget	US\$4.7 million (1984)
4. Life Expectancy, years	66 (1967)
5. Infant Mortality per 1,000 live births	45 (1980)
6. Persons per hospital bed	203 (1980)
7. Physicians (Doctors)	100 (1984)
8. G.N.P. per head	US\$953 (1984)
9. G.N.P. per head, average growth	3.4% (1960-80)
10. G.D.P. at current prices	US\$1.54 million (1984)
11. Industry % of G.D.P.	21
12. Currency Exchange Rate	1 BZZ = US\$0.50 (1980)

(B) PHARMACEUTICAL DATA

1. Pharmacists	3 (1984)
2. Pharmacies	31 (1984)
(a) Private	15
(b) Public	16
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$1.7 million (1983)
(b) State Sector	US\$338,000 (1984)
(c) Per Head	US\$10.6
(d) % Met by Production	10
5. Total Annual Production	US\$150,000 (1984)
6. Local Pharmaceutical Production Units	1
(a) Formulation	1
(b) Primary Production	-
7. Government Drug Control Laboratories	1

COUNTRY

BOTSWANA

(A) COUNTRY DATA

1. Population	900,000 (1982)
2. National Budget (Expenditure)	US\$280 million (1981)
3. Health Budget	US\$16.6 million (1981)
4. Life Expectancy, years	50 (1980)
5. Infant Mortality per 1,000 live births	83 (1980)
6. Persons per hospital bed	345 (1980)
7. Physicians (Doctors)	90 (1980)
8. G.N.P. per head	US\$900 (1982)
9. G.N.P. per head, average growth	6.8%
10. G.D.P. at current prices	US\$1024 million (1980-81)
11. Industry % of G.D.P.	22
12. Currency Exchange Rate	1 Pula = US\$0.93 (1981)

(B) PHARMACEUTICAL DATA

1. Pharmacists	10
2. Pharmacies	N/A
(a) Private - (b) Public	-
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	N/A
(a) Total	N/A
(b) State Sector	N/A
(c) Per Head	N/A
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation - (b) Primary Production	-
7. Government Drug Control Laboratories	-

COUNTRY

BRITAIN

(A) COUNTRY DATA

1. Population	56,500,000 (1982)
2. National Budget (Expenditure)	US\$177,140 million ¹ (provisional 1983-84)
3. Health Budget	US\$27,140 million (provisional 1983-84)
4. Life Expectancy, years	74 (1982)
5. Infant Mortality per 1,000 live births	11 (1982)
6. Persons per hospital bed	116 (1980)
7. Physicians (Doctors)	87,000 (1978)
8. G.N.P. per head	US\$9,660 (1982)
9. G.N.P. per head, average growth	2.0 (1970-80)
10. G.D.P. at current prices	US\$480,000 million (1982)
11. Industry % of G.D.P.	33 (1982)
12. Currency Exchange Rate	£1 = US\$1.750 (1982) £1 = US\$1.475 (1983-84)

(B) PHARMACEUTICAL DATA

1. Pharmacists	31,955
2. Pharmacies	11,597
(a) Private 10,867	(b) Public 730
3. Pharmaceutical Educational Institutions	17
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$3,128 million (1982)*
(b) State Sector	US\$2,507 million (1983-84)
(c) Per Head	US\$55.36
(d) % Met by Production	75 (approx.)
5. Total Annual Production	US\$4,180 million (1982)*
6. Local Pharmaceutical Production Units	500
(a) Formulation ¹ 500*	(b) Primary Production ² 200*
7. Government Drug Control Laboratories	3

¹ Excluding debt interest.² Also produce formulation products.

COUNTRY

BRUNEI

(A) COUNTRY DATA

1. Population	215,000 (1983)
2. National Budget (Expenditure)	US\$320 million (1983)
3. Health Budget	US\$35 million (1984)
4. Life Expectancy, years	71 (1983)
5. Infant Mortality per 1,000 live births	11 (1983)
6. Persons per hospital bed	356 (1980)
7. Physicians (Doctors)	130 (1984)
8. G.N.P. per head	N/A
9. G.N.P. per head, average growth	N/A
10. G.D.P. at current prices	US\$7,744 million (1983)
11. Industry % of G.D.P.	N/A
12. Currency Exchange Rate	1 Brunei \$ = 0.46 US\$ (1983-84)

(B) PHARMACEUTICAL DATA

1. Pharmacists	6 (1980)
2. Pharmacies	4
(a) Private - (b) Public	4
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$3.40 million (1984)
(b) State Sector	US\$3.00 million (1984)
(c) Per Head	US\$15.75*
(d) % Met by Production	5%
5. Total Annual Production	US\$150,000*
6. Local Pharmaceutical Production Units	1
(a) Formulation 1 (b) Primary Production	-
7. Government Drug Control Laboratories	-

COUNTRY

CANADA

(A) COUNTRY DATA

1. Population	25,150,000 (1983)
2. National Budget (Expenditure)	US\$79,503 million*(1983)
3. Health Budget	US\$4,596 million (1983)
4. Life Expectancy, years	75 (1981)
5. Infant Mortality per 1,000 live births	10 (1982)
6. Persons per hospital bed	114 (1983-84)
7. Physicians (Doctors)	48,860 (1983)
8. G.N.P. per head	12,983 (1984)
9. G.N.P. per head, average growth	8.3% (1970-84)
10. G.D.P. at current prices	US\$302,909 (1984)
11. Industry % of G.D.P.	29 (1982)
12. Currency Exchange Rate	1 C\$ = 0.772 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	18,356 (1984)
2. Pharmacies	6,120 (1984)
(a) Private	5,446
(b) Public	674
3. Pharmaceutical Educational Institutions	9
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$1,400 million (1984)
(b) State Sector	US\$700 million (1984)
(c) Per Head	US\$57.00
(d) % Met by Production	70%
5. Total Annual Production	US\$1,400 million (1984)
6. Local Pharmaceutical Production Units	251
(a) Formulation	134
(b) Primary Production	117
7. Government Drug Control Laboratories	2

COUNTRY

CYPRUS

(A) COUNTRY DATA

1. Population	649,000 (1983)
2. National Budget (Expenditure)	US\$654 million (1984)
3. Health Budget	US\$39 million (1984)
4. Life Expectancy, years	74 (1983)
5. Infant Mortality per 1,000 live births	13 (1983)
6. Persons per hospital bed	149 (1983)
7. Physicians (Doctors)	729 (1983)
8. G.N.P. per head	US\$3,296 (1983)
9. G.N.P. per head, average growth	10.8% (1960-83)
10. G.D.P. at current prices	US\$2094 million (1983)
11. Industry % of G.D.P.	20.4
12. Currency Exchange Rate	1 Cyprus £ = US\$1.90 (1983) 1 Cyprus £ = US\$1.70 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	359 (1984)
2. Pharmacies	251 (1984)
(a) Private	220
(b) Public	31
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$16.8 million (1984)
(b) State Sector	US\$5.6 million (1984)
(c) Per Head	US\$25.89
(d) % Met by Production	5.6
5. Total Annual Production	US\$940,000 (1984)*
6. Local Pharmaceutical Production Units	5
(a) Formulation	5
(b) Primary Production	-
7. Government Drug Control Laboratories	2

COUNTRY

DOMINICA

(A) COUNTRY DATA

1. Population	100,000 (1982)
2. National Budget (Expenditure)	US\$49.65 million (1984-85)
3. Health Budget	US\$7.5 million (1984-85)
4. Life Expectancy, years	58 (1980)
5. Infant Mortality per 1,000 live births	20 (1980)
6. Persons per hospital bed	231 (1980)
7. Physicians (Doctors)	22 (1980)
8. G.N.P. per head	US\$710 (1982)
9. G.N.P. per head, average growth	-0.8% (1970-80)
10. G.D.P. at current prices	US\$57 million (1980)
11. Industry % of G.D.P.	5
12. Currency Exchange Rate	1 EC\$ = 0.37 US\$

(B) PHARMACEUTICAL DATA

1. Pharmacists	29 (1984)
2. Pharmacies	14 (1984)
(a) Private 5	(b) Public 9
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$622,000 (1980)
(b) State Sector	US\$300,000
(c) Per Head	US\$6.20
(d) % Met by Production	18% of drugs (not value)
5. Total Annual Production	N/A
6. Local Pharmaceutical Production Units	1
(a) Formulation 1	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

FIJI

(A) COUNTRY DATA

1. Population	700,000 (1982)
2. National Budget (Expenditure)	US\$376 million (1984-85)
3. Health Budget	US\$30.3 million (1984-85)
4. Life Expectancy, years	72 (1982)
5. Infant Mortality per 1,000 live births	37 (1982)
6. Persons per hospital bed	380 (1982)
7. Physicians (Doctors)	261 (1982)
8. G.N.P. per head	US\$1950 (1982)
9. G.N.P. per head, average growth	3.2%
10. G.D.P. at current prices	US\$1275 million (1981)
11. Industry % of G.D.P.	14
12. Currency Exchange Rate	1 F\$ = US\$0.99 (1982) 1 F\$ = US\$0.86 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	3 (1984) (+26 pharmacy technicians)
2. Pharmacies	48 (1984)
(a) Private 45	(b) Public 3
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$5.16 million (1984)
(b) State Sector	US\$1.72 million (1984)
(c) Per Head	US\$7.37
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	1
(a) Formulation 1	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

THE GAMBIA

(A) COUNTRY DATA

1. Population	700,000 (1983)
2. National Budget (Expenditure)	US\$66.9 million (1984)
3. Health Budget	US\$5.4 million (1984)
4. Life Expectancy, years	42 (1980)
5. Infant Mortality per 1,000 live births	117 (1984)
6. Persons per hospital bed	816 (1978)
7. Physicians (Doctors)	45 (1980)
8. G.N.P. per head	US\$360 (1982)
9. G.N.P. per head, average growth	2.5% (1960-80)
10. G.D.P. at current prices	US\$226 million (1982)
11. Industry % of G.D.P.	4.8
12. Currency Exchange Rate	1 Dalasi = US\$0.40 (1983) 1 Dalasi = US\$0.37 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	3 (1984)
2. Pharmacies	72 (1984)
(a) Private 70	(b) Public 2
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$1.11 million (1984)*
(b) State Sector	US\$370,000 (1984)
(c) Per Head	US\$1.58
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	1
(a) Formulation 1	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

GHANA

(A) COUNTRY DATA

1. Population	12,200,000 (1982)
2. National Budget (Expenditure)	US\$1680 million (1980)
3. Health Budget	US\$117 million (1980)
4. Life Expectancy, years	55 (1982)
5. Infant Mortality per 1,000 live births	103 (1980)
6. Persons per hospital bed	660 (1980)
7. Physicians (Doctors)	1600 (1980)
8. G.N.P. per head	US\$360 (1982)
9. G.N.P. per head, average growth	-1.3% (1960-80)
10. G.D.P. at current prices	US\$31,220 million (1982)
11. Industry % of G.D.P.	8
12. Currency Exchange Rate	1 Cede = US\$0.36 (1980)

(B) PHARMACEUTICAL DATA

1. Pharmacists	579 (1979)
2. Pharmacies	N/A
(a) Private - (b) Public -	
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$36 million (1980)
(b) State Sector	US\$36 million (1980)
(c) Per Head	US\$3.00 (1980)
(d) % Met by Production	N/A
5. Total Annual Production	N/A
6. Local Pharmaceutical Production Units	5
(a) Formulation 5 (b) Primary Production -	
7. Government Drug Control Laboratories	1

COUNTRY

GRENADA

(A) COUNTRY DATA

1. Population	100,000 (1982)
2. National Budget (Expenditure)	US\$78.2 million (1984)
3. Health Budget	US\$4.90 million (1984)
4. Life Expectancy, years	69 (1980)
5. Infant Mortality per 1,000 live births	15 (1980)
6. Persons per hospital bed	149 (1980)
7. Physicians (Doctors)	37 (1981)
8. G.N.P. per head	US\$760 (1982)
9. G.N.P. per head, average growth	1.6%
10. G.D.P. at current prices	US\$72.3 million (1980)
11. Industry % of G.D.P.	5
12. Currency Exchange Rate	1 EC\$ = US\$0.37

(B) PHARMACEUTICAL DATA

1. Pharmacists	36
2. Pharmacies	45
(a) Private	13
(b) Public	32
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$1.3 million (1984)
(b) State Sector	US\$0.37 million (1984)
(c) Per Head	US\$13.00
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation	-
(b) Primary Production	-
7. Government Drug Control Laboratories	-

COUNTRYGUYANA(A) COUNTRY DATA

1. Population	800,000 (1982)
2. National Budget (Expenditure)	US\$247 million (1981)
3. Health Budget	US\$10.7 million (1981)
4. Life Expectancy, years	70 (1980)
5. Infant Mortality per 1,000 live births	44 (1980)
6. Persons per hospital bed	200 (1980)
7. Physicians (Doctors)	108 (1980)
8. G.N.P. per head	US\$670 (1982)
9. G.N.P. per head, average growth	1.7%
10. G.D.P. at current prices	US\$436 million (1981)
11. Industry % of G.D.P.	29
12. Currency Exchange Rate	1 G\$ = US\$0.33 (1981)

(B) PHARMACEUTICAL DATA

1. Pharmacists	32 (1979)
2. Pharmacies	29
(a) Private	29
(b) Public	-
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$6 million (1981)
(b) State Sector	US\$4 million (1981)
(c) Per Head	US\$7.50
(d) % Met by Production	40
5. Total Annual Production	US\$2.4 million (1981)*
6. Local Pharmaceutical Production Units	2
(a) Formulation	2
(b) Primary Production	-
7. Government Drug Control Laboratories	-

COUNTRY

INDIA

(A) COUNTRY DATA

1. Population	717,000,000 (1982)
2. National Budget (Expenditure)	US\$26,700 million (1984-85)
3. Health Budget	US\$536 million (1984-85)
4. Life Expectancy, years	55 (1982)
5. Infant Mortality per 1,000 live births	123 (1980)
6. Persons per hospital bed	1311 (1980)
7. Physicians (Doctors)	200,000 (1982)
8. G.N.P. per head	US\$260 (1982)
9. G.N.P. per head, average growth	1.3% (1960-80)
10. G.D.P. at current prices	US\$150,760 million (1982)
11. Industry % of G.D.P.	26
12. Currency Exchange Rate	1 Rs = US\$0.10 (1982) 1 Rs = US\$0.0886 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	180,000 (1984)
2. Pharmacies	182,000 (1984)
(a) Private	171,500
(b) Public	10,500
3. Pharmaceutical Educational Institutions	116
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$1874 million (1984)
(b) State Sector	US\$400 million (1984)
(c) Per Head	US\$2.61
(d) % Met by Production	91.5
5. Total Annual Production	US\$1418 million (1982-83)
6. Local Pharmaceutical Production Units	5200 (1977-78)
(a) Formulation	N/A
(b) Primary Production	N/A
7. Government Drug Control Laboratories	10

COUNTRY

JAMAICA

(A) COUNTRY DATA

1. Population	2,200,000 (1982)
2. National Budget (Expenditure)	US\$1,400 million (1981-82)
3. Health Budget	US\$108.5 million (1981-82)
4. Life Expectancy, years	73 (1982)
5. Infant Mortality per 1,000 live births	16 (1980)
6. Persons per hospital bed	263 (1980)
7. Physicians (Doctors)	2830 (1980)
8. G.N.P. per head	US\$1330 (1982)
9. G.N.P. per head, average growth	0.7% (1960-80)
10. G.D.P. at current prices	US\$3186 million (1982)
11. Industry % of G.D.P.	32
12. Currency Exchange Rate	1 J\$ = US\$0.56 (1981-82)

(B) PHARMACEUTICAL DATA

1. Pharmacists	151 (1978)
2. Pharmacies	N/A
(a) Private -	(b) Public -
3. Pharmaceutical Educational Institutions	2
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$18.1 million
(b) State Sector	US\$7 million (1981)
(c) Per Head	US\$8.22
(d) % Met by Production	21
5. Total Annual Production	US\$3.8 million (1981)
6. Local Pharmaceutical Production Units	7
(a) Formulation 7	(b) Primary Production -
7. Government Drug Control Laboratories	1

COUNTRY

KENYA

(A) COUNTRY DATA

1. Population	18,100,000 (1982)
2. National Budget (Expenditure)	US\$1466 million (1984-85)
3. Health Budget	US\$114.3 million (1984-85)
4. Life Expectancy, years	57 (1982)
5. Infant Mortality per 1,000 live births	87 (1982)
6. Persons per hospital bed	770 (1982)
7. Physicians (Doctors)	2300 (1982)
8. G.N.P. per head	US\$390 (1982)
9. G.N.P. per head, average growth	2.8% (1960-80)
10. G.D.P. at current prices	US\$5340 million (1982)
11. Industry % of G.D.P.	22
12. Currency Exchange Rate	1 KSh = US\$0.08 (1982) 1 KSh = US\$0.067 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	403 (1984)
2. Pharmacies	213
(a) Private	143
(b) Public	70
3. Pharmaceutical Educational Institutions	2 (one degree level)
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$27 million (1984)
(b) State Sector	app. US\$7 million (1984)*
(c) Per Head	US\$1.50
(d) % Met by Production	20
5. Total Annual Production	US\$6 million (1984)*
6. Local Pharmaceutical Production Units	20
(a) Formulation	20
(b) Primary Production	-
7. Government Drug Control Laboratories	2

COUNTRY

KIRIBATI

(A) COUNTRY DATA

1. Population	50,000 (1981)
2. National Budget (Expenditure)	US\$13.7 million (1984)
3. Health Budget	US\$1.37 million (1984)
4. Life Expectancy, years	52 (1978)
5. Infant Mortality per 1,000 live births	87 (1978)
6. Persons per hospital bed	153 (1977)
7. Physicians (Doctors)	26 (1977)
8. G.N.P. per head	US\$770 (1980)
9. G.N.P. per head, average growth	N/A
10. G.D.P. at current prices	US\$24 million (1980)
11. Industry % of G.D.P.	44
12. Currency Exchange Rate	1 A\$ = US\$0.983 (1982) 1 A\$ = US\$0.913 (1983-84)

(B) PHARMACEUTICAL DATA

1. Pharmacists	1 (1984)
2. Pharmacies	1
(a) Private - (b) Public	1
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$ 37,000 (1984)
(b) State Sector	US\$.37,000 (1984)
(c) Per Head	US\$7.30
(d) % Met by Production	2%
5. Total Annual Production	US\$7,300
6. Local Pharmaceutical Production Units	1
(a) Formulation 1 (b) Primary Production	-
7. Government Drug Control Laboratories	-

COUNTRY

LESOTHO

(A) COUNTRY DATA

1. Population	1,400,000 (1982)
2. National Budget (Expenditure)	N/A
3. Health Budget	N/A
4. Life Expectancy, years	53 (1982)
5. Infant Mortality per 1,000 live births	115 (1980)
6. Persons per hospital bed	487 (1980)
7. Physicians (Doctors)	75 (1980)
8. G.N.P. per head	US\$510 (1982)
9. G.N.P. per head, average growth	65% (1960-80)
10. G.D.P. at current prices	US\$300 million (1982)
11. Industry % of G.D.P.	22
12. Currency Exchange Rate	1 Loti = US\$0.93 (1982)

(B) PHARMACEUTICAL DATA

1. Pharmacists	4 (1977)
2. Pharmacies	N/A
(a) Private -	(b) Public -
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	N/A
(b) State Sector	N/A
(c) Per Head	N/A
(d) % Met by Production	N/A
5. Total Annual Production	N/A
6. Local Pharmaceutical Production Units	1
(a) Formulation 1	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

MALAWI

(A) COUNTRY DATA

1. Population	6,500,000 (1982)
2. National Budget (Expenditure)	US\$279.5 million (1984-85)
3. Health Budget	US\$13.1 million (1984-85)
4. Life Expectancy, years	44 (1982)
5. Infant Mortality per 1,000 live births	172 (1982)
6. Persons per hospital bed	743 (1982)
7. Physicians (Doctors)	160 (1982)
8. G.N.P. per head	US\$210 (1982)
9. G.N.P. per head, average growth	2.6% (1960-80)
10. G.D.P. at current prices	US\$1320 million (1982)
11. Industry % of G.D.P.	20%
12. Currency Exchange Rate	1 (M)Kw1 = US\$0.77 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	26
2. Pharmacies	26
(a) Private	14
(b) Public	12
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$6,000,000 (1984)
(b) State Sector	US\$4,000,000 (1984)
(c) Per Head	US\$0.92
(d) % Met by Production	18
5. Total Annual Production	US\$1.1 million (1984)
6. Local Pharmaceutical Production Units	2
(a) Formulation	2
(b) Primary Production	-
7. Government Drug Control Laboratories	1

COUNTRY

MALAYSIA

(A) COUNTRY DATA

1. Population	14,500,000 (1982)
2. National Budget (Expenditure)	US\$11,464 million (1984)
3. Health Budget	US\$466.4 million (1984)
4. Life Expectancy, years	67 (1982)
5. Infant Mortality per 1,000 live births	31 (1980)
6. Persons per hospital bed	310 (1980)
7. Physicians (Doctors)	1833 (1982)
8. G.N.P. per head	US\$1860 (1982)
9. G.N.P. per head, average growth	4.3% (1960-82)
10. G.D.P. at current prices	US\$25,870 million (1982)
11. Industry % of G.D.P.	37
12. Currency Exchange Rate	1 M\$ = US\$0.43 (1982) 1 M\$ = US\$0.414 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	809 (1984)
2. Pharmacies	200 (1984)
(a) Private 110	(b) Public 90
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$103.5 million (1984)
(b) State Sector	US\$19.0 million (1984)
(c) Per Head	US\$7.14
(d) % Met by Production	20%
5. Total Annual Production	US\$21 million*
6. Local Pharmaceutical Production Units	13
(a) Formulation 13	(b) Primary Production -
7. Government Drug Control Laboratories	1

COUNTRY

MALDIVES

(A) COUNTRY DATA

1. Population	170,500 (1981)
2. National Budget (Expenditure)	US\$20.4 million (1982)
3. Health Budget	US\$1.2 million (1982)
4. Life Expectancy, years	52 (1982)
5. Infant Mortality per 1,000 live births	77 (1983)
6. Persons per hospital bed	1672 (1983)
7. Physicians (Doctors)	13 (1980)
8. G.N.P. per head	US\$260 (1980)
9. G.N.P. per head, average growth	-0.7% (1960-80)
10. G.D.P. at current prices	US\$77 million (1984)
11. Industry % of G.D.P.	N/A
12. Currency Exchange Rate	1 MR (RF) = US\$0.143 (1982)

(B) PHARMACEUTICAL DATA

1. Pharmacists	2 (1979)
2. Pharmacies	11
(a) Private 2	(b) Public 9
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$750,000 (1984)
(b) State Sector	N/A
(c) Per Head	US\$4.40
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation -	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

MALTA

(A) COUNTRY DATA

1. Population	400,000 (1982)
2. National Budget (Expenditure)	US\$522.7 million (1982)
3. Health Budget	US\$48 million (1982)
4. Life Expectancy, years	72 (1980)
5. Infant Mortality per 1,000 live births	15 (1982)
6. Persons per hospital bed	79 (1982)
7. Physicians (Doctors)	860 (1982)
8. G.N.P. per head	US\$3,800 (1982)
9. G.N.P. per head, average growth	8.0% (1960-80)
10. G.D.P. at current prices	US\$1121 million (1982)
11. Industry % of G.D.P.	86
12. Currency Exchange Rate	1 £M = US\$2.37 (1982)

(B) PHARMACEUTICAL DATA

1. Pharmacists	307 (1983)
2. Pharmacies	158 (1983)
(a) Private 154	(b) Public 4
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$9.8 million (1982)
(b) State Sector	US\$2.5 million
(c) Per Head	US\$24.50 (1982)
(d) % Met by Production	5
5. Total Annual Production	US\$500,000 (1982)
6. Local Pharmaceutical Production Units	2
(a) Formulation 2	(b) Primary Production -
7. Government Drug Control Laboratories	1

COUNTRY

MAURITIUS

(A) COUNTRY DATA

1. Population	967,000 (1983)
2. National Budget (Expenditure)	US\$273 million (1984)
3. Health Budget	US\$18.5 million (1984)
4. Life Expectancy, years	69 (1983)
5. Infant Mortality per 1,000 live births	26 (1983)
6. Persons per hospital bed	313 (1983)
7. Physicians (Doctors)	690 (1983)
8. G.N.P. per head	US\$697 (1983)
9. G.N.P. per head, average growth	2.1 (1960-80)
10. G.D.P. at current prices	US\$845 million (1983)
11. Industry % of G.D.P.	14
12. Currency Exchange Rate	1 (M)Rs = US\$0.9 (1982) 1 (M)Rs = US\$0.66 (1985)

(B) PHARMACEUTICAL DATA

1. Pharmacists	85 (1983)
2. Pharmacies	79 (1983)
(a) Private 79	(b) Public -
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$5.17 million (1983)
(b) State Sector	US\$1.60 million (1983)
(c) Per Head	US\$5.00
(d) % Met by Production	20
5. Total Annual Production	US\$1.10 million (1983)
6. Local Pharmaceutical Production Units	2
(a) Formulation 2	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

NAURU

(A) COUNTRY DATA

1. Population	8,000 (1980)
2. National Budget (Expenditure)	US\$97.2 million (1983-84)
3. Health Budget	US\$1.9 million (1983-84)
4. Life Expectancy, years	61 (1979)
5. Infant Mortality per 1,000 live births	19 (1979)
6. Persons per hospital bed	34 (1979)
7. Physicians (Doctors)	10 (1979)
8. G.N.P. per head	N/A
9. G.N.P. per head, average growth	N/A
10. G.D.P. at current prices	US\$98.3 million (1982)
11. Industry % of G.D.P.	N/A
12. Currency Exchange Rate	1 A\$ = US\$0.983 (1982) 1 A\$ = US\$0.913 (1983-84)

(B) PHARMACEUTICAL DATA

1. Pharmacists	2
2. Pharmacies	2
(a) Private -	(b) Public 2
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	-
(a) Total	N/A
(b) State Sector	US\$1.36 million
(c) Per Head	N/A
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation -	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

NEW ZEALAND

(A) COUNTRY DATA

1. Population	3,260,000 (1984)
2. National Budget (Expenditure)	US\$12,747 million (1984-85)*
3. Health Budget	US\$1,276.3 million (1984-85)*
4. Life Expectancy, years	73 (1982)
5. Infant Mortality per 1,000 live births	12 (1982)
6. Persons per hospital bed	131 (1984)
7. Physicians (Doctors)	7750 (1984)
8. G.N.P. per head	US\$6,767 (1984)
9. G.N.P. per head, average growth	1.5% (1960-82)
10. G.D.P. at current prices	US\$22,623 million (1984)
11. Industry % of G.D.P.	30
12. Currency Exchange Rate	1 NZ\$ = US\$0.752 (1982) 1 NZ\$ = US\$0.657 (1983-84) 1 NZ\$ = US\$0.450 (March 1985)

(B) PHARMACEUTICAL DATA

1. Pharmacists	3200 (1984)
2. Pharmacies	1230 (1984)
(a) Private 1159	(b) Public 71
3. Pharmaceutical Educational Institutions	2
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$316 million*
(b) State Sector	US\$171 million (1984)
(c) Per Head	US\$98.75
(d) % Met by Production	50
5. Total Annual Production	US\$153 million*
6. Local Pharmaceutical Production Units	45
(a) Formulation 33	(b) Primary Production 12
7. Government Drug Control Laboratories	2

COUNTRY

NIGERIA

(A) COUNTRY DATA

1. Population	90,600,000 (1982)
2. National Budget (Expenditure)	US\$5,500 million (1985)
3. Health Budget	US\$136 million (1985)
4. Life Expectancy, years	50 (1982)
5. Infant Mortality per 1,000 live births	135 (1980)
6. Persons per hospital bed	1369 (1980)
7. Physicians (Doctors)	7219 (1982)
8. G.N.P. per head	US\$860 (1982)
9. G.N.P. per head, average growth	3.3% (1960-80)
10. G.D.P. at current prices	US\$71,720 million (1982)
11. Industry % of G.D.P.	39
12. Currency Exchange Rate	1 Naira = US\$1.44 (1982) 1 Naira = US\$0.81 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	2780 (1979)
2. Pharmacies	N/A
(a) Private	N/A
(b) Public	N/A
3. Pharmaceutical Educational Institutions	6 (1984)
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$324 million (1984)
(b) State Sector	N/A
(c) Per Head	US\$3.56*
(d) % Met by Production	30
5. Total Annual Production	US\$97 million (1984)*
6. Local Pharmaceutical Production Units	35
(a) Formulation	35
(b) Primary Production	-
7. Government Drug Control Laboratories	3

COUNTRY

PAPUA NEW GUINEA

(A) COUNTRY DATA

1. Population	3,300,000 (1985)
2. National Budget (Expenditure)	US\$777 million (1984)
3. Health Budget	US\$75.5 million (1984)
4. Life Expectancy, years	50 (1980)
5. Infant Mortality per 1,000 live births	72 (1980)
6. Persons per hospital bed	701 (1984)
7. Physicians (Doctors)	283 (1984)
8. G.N.P. per head	US\$820 (1982)
9. G.N.P. per head, average growth	2.1% (1960-82)
10. G.D.P. at current prices	US\$2,350 million (1982)
11. Industry % of G.D.P.	30
12. Currency Exchange Rate	1 Kina = US\$1.18 (1982) 1 Kina = US\$0.056 (1985)

(B) PHARMACEUTICAL DATA

1. Pharmacists	33
2. Pharmacies	17
(a) Private	12
(b) Public	5
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$3.5 million (1984)
(b) State Sector	US\$3 million (1984)
(c) Per Head	US\$1.06
(d) % Met by Production	10
5. Total Annual Production	US\$300,000
6. Local Pharmaceutical Production Units	6
(a) Formulation	6
(b) Primary Production	-
7. Government Drug Control Laboratories	-

COUNTRY

ST CHRISTOPHER-NEVIS

(A) COUNTRY DATA

1. Population	45,000 (1982)
2. National Budget (Expenditure)	US\$20.3 million (1984)
3. Health Budget	US\$3.13 million (1984)
4. Life Expectancy, years	67.6 - Male; 72.2 - Female (1983)
5. Infant Mortality per 1,000 live births	41.2
6. Persons per hospital bed	181.8
7. Physicians (Doctors)	20
8. G.N.P. per head	US\$750 (1982)
9. G.N.P. per head, average growth	1.7% (1980-82)
10. G.D.P. at current prices	US\$59 million (1982)
11. Industry % of G.D.P.	N/A
12. Currency Exchange Rate	1 EC\$ = US\$0.37

(B) PHARMACEUTICAL DATA

1. Pharmacists	21 (1984)
2. Pharmacies	13 (1984)
(a) Private	7
(b) Public	6
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$740,000
(b) State Sector	US\$240,000 (1984)
(c) Per Head	US\$16.44
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation	-
(b) Primary Production	-
7. Government Drug Control Laboratories	-

COUNTRY

ST LUCIA

(A) COUNTRY DATA

1. Population	100,000 (1981)
2. National Budget (Expenditure)	US\$48.1 million (1984)
3. Health Budget	US\$6.7 million (1984)
4. Life Expectancy, years	67 (1980)
5. Infant Mortality per 1,000 live births	33 (1980)
6. Persons per hospital bed	205 (1980)
7. Physicians (Doctors)	43 (1980)
8. G.N.P. per head	US\$720 (1982)
9. G.N.P. per head, average growth	3.4% (1960-82)
10. G.D.P. at current prices	US\$133 million (1982)
11. Industry % of G.D.P.	8
12. Currency Exchange Rate	1 EC\$ =US\$0.37

(B) PHARMACEUTICAL DATA

1. Pharmacists	11 (1984)
2. Pharmacies	61 (1984)
(a) Private	50
(b) Public	11
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$4.3 million (1984)
(b) State Sector	US\$1.3 million (1984)
(c) Per Head	US\$43.00
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation	-
(b) Primary Production	-
7. Government Drug Control Laboratories	-

COUNTRYST VINCENT AND THE
GRENADINES(A) COUNTRY DATA

1. Population	128,000 (1983)
2. National Budget (Expenditure)	US\$25.3 million (1982)
3. Health Budget	US\$2.7 million (1982)
4. Life Expectancy, years	67 (1980)
5. Infant Mortality per 1,000 live births	41 (1983)
6. Persons per hospital bed	343 (1980)
7. Physicians (Doctors)	47 (1980)
8. G.N.P. per head	US\$620 (1982)
9. G.N.P. per head, average growth	0.6%
10. G.D.P. at current prices	US\$59.2 million (1982)
11. Industry % of G.D.P.	7
12. Currency Exchange Rate	1 EC\$ = US\$0.37 (1982)

(B) PHARMACEUTICAL DATA

1. Pharmacists	23 (1982)
2. Pharmacies	7
(a) Private 6	(b) Public 1
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$715,000 (1981)
(b) State Sector	US\$260,000
(c) Per Head	US\$5.59
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation -	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

SEYCHELLES

(A) COUNTRY DATA

1. Population	65,000 (1984)
2. National Budget (Expenditure)	US\$60 million (1984)
3. Health Budget	US\$5.5 million (1984)
4. Life Expectancy, years	66 (1982)
5. Infant Mortality per 1,000 live births	14 (1984)
6. Persons per hospital bed	180 (1984)
7. Physicians (Doctors)	34 (1982)
8. G.N.P. per head	US\$1800 (1982)
9. G.N.P. per head, average growth	3.8%
10. G.D.P. at current prices	US\$144 million (1980)
11. Industry % of G.D.P.	22
12. Currency Exchange Rate	1 SR = US\$0.15 (1982) 1 SR = US\$0.14 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	6 (1984)
2. Pharmacies	4 (1984)
(a) Private 3	(b) Public 1
3. Pharmaceutical Educational Institutions	1 (Pharmaceutical Dispenser)
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$420,000 (1984)
(b) State Sector	US\$420,000 (1984)
(c) Per Head	US\$4.20
(d) % Met by Production	20
5. Total Annual Production	US\$84,000 (1984)
6. Local Pharmaceutical Production Units	1
(a) Formulation 1	(b) Primary Production -
7. Government Drug Control Laboratories	1

COUNTRY

SIERRA LEONE

(A) COUNTRY DATA

1. Population	3,200,000 (1982)
2. National Budget (Expenditure)	US\$168.4 million (1984)
3. Health Budget	US\$11.6 million
4. Life Expectancy, years	38 (1980)
5. Infant Mortality per 1,000 live births	208 (1980)
6. Persons per hospital bed	1009 (1980)
7. Physicians (Doctors)	197 (1980)
8. G.N.P. per head	US\$390 (1982)
9. G.N.P. per head, average growth	0.9% (1960-80)
10. G.D.P. at current prices	US\$1130 million (1982)
11. Industry % of G.D.P.	20
12. Currency Exchange Rate	1 Le = US\$0.81 (1982) 1 Le = US\$0.39 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	16 (1984)
2. Pharmacies	88 (1984)
(a) Private	58
(b) Public	30
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$13 million (1984)*
(b) State Sector	US\$1.3 million (1984)
(c) Per Head	US\$4.06*
(d) % Met by Production	15
5. Total Annual Production	US\$1.9 million (1984)
6. Local Pharmaceutical Production Units	1
(a) Formulation	1
(b) Primary Production	-
7. Government Drug Control Laboratories	-

COUNTRY

SINGAPORE

(A) COUNTRY DATA

1. Population	2,500,000 (1982)
2. National Budget (Expenditure)	US\$7734 million (1984-85)
3. Health Budget	US\$181.1 million (1984-85)
4. Life Expectancy, years	72 (1982)
5. Infant Mortality per 1,000 live births	12 (1980)
6. Persons per hospital bed	269 (1980)
7. Physicians (Doctors)	2174 (1982)
8. G.N.P. per head	US\$5,910 (1982)
9. G.N.P. per head, average growth	7.4%
10. G.D.P. at current prices	US\$14,650 million (1982)
11. Industry % of G.D.P.	37
12. Currency Exchange Rate	1 S\$ = US\$0.480 (1982) 1 S\$ = US\$0.467 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	409 (1984)
2. Pharmacies	133 (1984)
(a) Private	85
(b) Public	48
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$30 million (1980)*
(b) State Sector	US\$6.54 million (1983)
(c) Per Head	US\$12.00 (1980)
(d) % Met by Production	80*
5. Total Annual Production	US\$170 million (1980)*
6. Local Pharmaceutical Production Units	19
(a) Formulation	18
(b) Primary Production	1
7. Government Drug Control Laboratories	1

COUNTRY

SOLOMON ISLANDS

(A) COUNTRY DATA

1. Population	200,000 (1981)
2. National Budget (Expenditure)	US\$39.2 million (1984)
3. Health Budget	US\$2.1 million (1984)
4. Life Expectancy, years	54 (1976)
5. Infant Mortality per 1,000 live births	78 (1980)
6. Persons per hospital bed	325 (1980)
7. Physicians (Doctors)	31 (1980)
8. G.N.P. per head	US\$660 (1982)
9. G.N.P. per head, average growth	1.3
10. G.D.P. at current prices	US\$141 million (1980)
11. Industry % of G.D.P.	1
12. Currency Exchange Rate	1 SI\$ = US\$0.89 (1982) 1 SIS = US\$0.76 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	4 (1977)
2. Pharmacies	9
(a) Private 1	(b) Public 8
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$600,000 (1984)
(b) State Sector	US\$600,000
(c) Per Head	US\$3.00*
(d) % Met by Production	4
5. Total Annual Production	US\$4,000*
6. Local Pharmaceutical Production Units	1
(a) Formulation 1	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

SRI LANKA

(A) COUNTRY DATA

1. Population	15,200,000 (1982)
2. National Budget (Expenditure)	US\$2070 million (1983)
3. Health Budget	US\$53.1 million (1982)
4. Life Expectancy, years	69 (1982)
5. Infant Mortality per 1,000 live births	44 (1980)
6. Persons per hospital bed	340 (1980)
7. Physicians (Doctors)	2,120 (1982)
8. G.N.P. per head	US\$320 (1982)
9. G.N.P. per head, average growth	2.6% (1960-82)
10. G.D.P. at current prices	US\$4,400 million (1982)
11. Industry % of G.D.P.	30%
12. Currency Exchange Rate	1 SL Rs = US\$0.0405 (1983)

(B) PHARMACEUTICAL DATA

1. Pharmacists	460
2. Pharmacies	5,817
(a) Private	App. 5,000
(b) Public	817
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$20 million (1980)*
(b) State Sector	US\$6,000,000 (1980)
(c) Per Head	US\$1.35 (1980)*
(d) % Met by Production	10
5. Total Annual Production	US\$2.0 million (1983)*
6. Local Pharmaceutical Production Units	14
(a) Formulation	14
(b) Primary Production	
7. Government Drug Control Laboratories	1

COUNTRY

SWAZILAND

(A) COUNTRY DATA

1. Population	700,000
2. National Budget (Expenditure)	US\$161.1 million (1983-84)
3. Health Budget	US\$10.3 million
4. Life Expectancy, years	54 (1982)
5. Infant Mortality per 1,000 live births	135
6. Persons per hospital bed	288
7. Physicians (Doctors)	65
8. G.N.P. per head	US\$940 (1982)
9. G.N.P. per head, average growth	4.2%
10. G.D.P. at current prices	US\$595 million (1981-82)
11. Industry % of G.D.P.	27
12. Currency Exchange Rate	1 E = US\$0.8375 (1983)

(B) PHARMACEUTICAL DATA

1. Pharmacists	18
2. Pharmacies	13
(a) Private 6	(b) Public 7
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$3.8 million (1983)
(b) State Sector	US\$1.6 million
(c) Per Head	US\$5.43
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation -	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

TANZANIA

(A) COUNTRY DATA

1.	Population	19,800,000 (1982)
2.	National Budget (Expenditure)	US\$1040 million (1984-85)
3.	Health Budget	US\$36.80 million (1984-85)
4.	Life Expectancy, years	52 (1982)
5.	Infant Mortality per 1,000 live births	103 (1980)
6.	Persons per hospital bed	500 (1980)
7.	Physicians (Doctors)	1,127 (1982)
8.	G.N.P. per head	US\$280 (1982)
9.	G.N.P. per head, average growth	1.9% (1960-82)
10.	G.D.P. at current prices	US\$4,530 million (1982)
11.	Industry % of G.D.P.	13%
12.	Currency Exchange Rate	1 Tsh = US\$0.08 (1984)

(B) PHARMACEUTICAL DATA

1.	Pharmacists	200 (1984)
2.	Pharmacies	170
	(a) Private 20	(b) Public 150
3.	Pharmaceutical Educational Institutions	1
4.	Consumption of Medical Drugs (Annual)	
	(a) Total	US\$40 million (1983)
	(b) State Sector	US\$32 million (1983)
	(c) Per Head	US\$2.02
	(d) % Met by Production	10.0%
5.	Total Annual Production	US\$4 million (1983)*
6.	Local Pharmaceutical Production Units	4
	(a) Formulation 4	(b) Primary Production -
7.	Government Drug Control Laboratories	1

COUNTRY

TONGA

(A) COUNTRY DATA

1. Population	100,000 (1982)
2. National Budget (Expenditure)	US\$16.3 million (1984-85)
3. Health Budget	US\$2.1 million (1984-85)
4. Life Expectancy, years	58 (1976)
5. Infant Mortality per 1,000 live births	21 (1980)
6. Persons per hospital bed	280 (1980)
7. Physicians (Doctors)	30 (1979)
8. G.N.P. per head	US\$520 (1980)
9. G.N.P. per head, average growth	1.1%
10. G.D.P. at current prices	US\$62 million (1980-81)
11. Industry % of G.D.P.	3
12. Currency Exchange Rate	1 Tonga \$ = US\$0.89 (1981) 1 Tonga \$ = US\$0.85 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	3 (1984)
2. Pharmacies	6
(a) Private 2	(b) Public 4
3. Pharmaceutical Educational Institutions	NIL
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$275,000 (1984)
(b) State Sector	US\$275,000 (1984)
(c) Per Head	US\$2.75
(d) % Met by Production	NIL
5. Total Annual Production	NIL
6. Local Pharmaceutical Production Units	1
(a) Formulation 1	(b) Primary Production NIL
7. Government Drug Control Laboratories	NIL

COUNTRY

TRINIDAD AND TOBAGO

(A) COUNTRY DATA

1. Population	1,100,000 (1982)
2. National Budget (Expenditure)	US\$2,704 million (1983)
3. Health Budget	US\$235.6 million (1983)
4. Life Expectancy, years	68 (1982)
5. Infant Mortality per 1,000 live births	24 (1980)
6. Persons per hospital bed	786 (1982)
7. Physicians (Doctors)	224 (1982)
8. G.N.P. per head	US\$6,840 (1982)
9. G.N.P. per head, average growth	3.1% (1960-82)
10. G.D.P. at current prices	US\$6,970 million (1982)
11. Industry % of G.D.P.	52
12. Currency Exchange Rate	1 TT\$ = US\$0.415 (1983)

(B) PHARMACEUTICAL DATA

1. Pharmacists	415 (1984)
2. Pharmacies	411
(a) Private	298 (1983)
(b) Public	113
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$34.8 million (1983)
(b) State Sector	US\$34.8 million (1983)
(c) Per Head	US\$31.63
(d) % Met by Production	9
5. Total Annual Production	US\$3 million*
6. Local Pharmaceutical Production Units	2
(a) Formulation	2
(b) Primary Production	-
7. Government Drug Control Laboratories	1

COUNTRY

TUVALU

(A) COUNTRY DATA

1.	Population	8,000 (1980)
2.	National Budget (Expenditure)	N/A
3.	Health Budget	N/A
4.	Life Expectancy, years	59 (1979)
5.	Infant Mortality per 1,000 live births	42 (1979)
6.	Persons per hospital bed	175
7.	Physicians (Doctors)	4 (1983)
8.	G.N.P. per head	US\$570 (1980)
9.	G.N.P. per head, average growth	-
10.	G.D.P. at current prices	US\$4.6 million (1981)
11.	Industry % of G.D.P.	N/A
12.	Currency Exchange Rate	1 A\$ = US\$0.88 (1983)

(B) PHARMACEUTICAL DATA

1.	Pharmacists	1 (1977)
2.	Pharmacies	N/A
	(a) Private	N/A
	(b) Public	N/A
3.	Pharmaceutical Educational Institutions	-
4.	Consumption of Medical Drugs (Annual)	
	(a) Total	N/A
	(b) State Sector	N/A
	(c) Per Head	N/A
	(d) % Met by Production	-
5.	Total Annual Production	-
6.	Local Pharmaceutical Production Units	-
	(a) Formulation	-
	(b) Primary Production	-
7.	Government Drug Control Laboratories	-

COUNTRY

UGANDA

(A) COUNTRY DATA

1. Population	13,500,000 (1984-85)
2. National Budget (Expenditure)	US\$251.7 million (1984.85)
3. Health Budget	US\$11.6 million (1984-85)
4. Life Expectancy, years	47 (1982)
5. Infant Mortality per 1,000 live births	97 (1980)
6. Persons per hospital bed	611 (1980)
7. Physicians (Doctors)	503 (1980)
8. G.N.P. per head	US\$230 (1982)
9. G.N.P. per head, average growth	-1.1% (1960-82)
10. G.D.P. at current prices	US\$8,630 million (1982)
11. Industry % of G.D.P.	4
12. Currency Exchange Rate	1 Ush = US\$0.0027

(B) PHARMACEUTICAL DATA

1. Pharmacists	28 (1984)
2. Pharmacies	28
(a) Private	24
(b) Public	4
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$2.16 million (1984)
(b) State Sector	US\$2.16 million (1984)
(c) Per Head	US\$0.16
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	2
(a) Formulation	2
(b) Primary Production	-
7. Government Drug Control Laboratories	1

COUNTRY

VANUATU

(A) COUNTRY DATA

1. Population	128,000 (1984)
2. National Budget (Expenditure)	US\$32.5 million (1985)
3. Health Budget	US\$3.9 million (1985)
4. Life Expectancy, years	56 - Males; 54 - Females (1979)
5. Infant Mortality per 1,000 live births	100 (1979)
6. Persons per hospital bed	295 (1984)
7. Physicians (Doctors)	23 (1985)
8. G.N.P. per head	US\$350 (1982)
9. G.N.P. per head, average growth	2.1%
10. G.D.P. at current prices	US\$72 million (1982)*
11. Industry % of G.D.P.	N/A
12. Currency Exchange Rate	1 Van = US\$0.01 (1985)

(B) PHARMACEUTICAL DATA

1. Pharmacists	6
2. Pharmacies	11
(a) Private	3
(b) Public	8
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$48,000 (1985)
(b) State Sector	US\$48,000 (1985)
(c) Per Head	US\$3.75
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation	-
(b) Primary Production	-
7. Government Drug Control Laboratories	-

COUNTRY

WESTERN SAMOA

(A) COUNTRY DATA

1. Population	159,000 (1984)
2. National Budget (Expenditure)	US\$20.30 million (1983)
3. Health Budget	US\$2.33 million (1983)
4. Life Expectancy, years	65 (1983)
5. Infant Mortality per 1,000 live births	33 (1983)
6. Persons per hospital bed	233 (1983)
7. Physicians (Doctors)	51 (1983)
8. G.N.P. per head	US\$650 (1982)
9. G.N.P. per head, average growth	N/A
10. G.D.P. at current prices	US\$120 million (1982)
11. Industry % of G.D.P.	N/A
12. Currency Exchange Rate	1WS\$ = US\$0.485

(B) PHARMACEUTICAL DATA

1. Pharmacists	6 (1983)
2. Pharmacies	4
(a) Private 3	(b) Public 1
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$175,000 (1983)
(b) State Sector	N/A
(c) Per Head	US\$1.10
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation -	(b) Primary Production -
7. Government Drug Control Laboratories	-

COUNTRY

ZAMBIA

(A) COUNTRY DATA

1. Population	6,000,000 (1982)
2. National Budget (Expenditure)	US\$1,360 million (1985)
3. Health Budget	US\$105 million (1985)
4. Life Expectancy, years	55 (1982)
5. Infant Mortality per 1,000 live births	106 (1980)
6. Persons per hospital bed	269 (1980)
7. Physicians (Doctors)	782 (1982)
8. G.N.P. per head	US\$640 (1982)
9. G.N.P. per head, average growth	-0.1% (1960-80)
10. G.D.P. at current prices	US\$3,830 million (1982)
11. Industry % of G.D.P.	39
12. Currency Exchange Rate	1 ZK = US\$0.84 (1982) 1 ZK = US\$0.74 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	135 (1984)
2. Pharmacies	100
(a) Private	65
(b) Public	35
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$19 million (1984)
(b) State Sector	US\$14 million (1981)
(c) Per Head	US\$3.20
(d) % Met by Production	25
5. Total Annual Production	US\$5.0 million (1981)*
6. Local Pharmaceutical Production Units	11
(a) Formulation	11
(b) Primary Production	-
7. Government Drug Control Laboratories	1

COUNTRY

ZIMBABWE

(A) COUNTRY DATA

1. Population	7,500,000 (1982)
2. National Budget (Expenditure)	US\$3050 million (1984-85)
3. Health Budget	US\$118.2 million (1984-85)
4. Life Expectancy, years	56 (1982)
5. Infant Mortality per 1,000 live births	74 (1980)
6. Persons per hospital bed	371 (1980)
7. Physicians (Doctors)	1,140 (1982)
8. G.N.P. per head	US\$850 (1982)
9. G.N.P. per head, average growth	1.5% (1960-82)
10. G.D.P. at current prices	US\$5,900 million (1982)
11. Industry % of G.D.P.	35
12. Currency Exchange Rate	1 Z\$ = US\$0.90 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	265
2. Pharmacies	96
(a) Private	80
(b) Public	16
3. Pharmaceutical Educational Institutions	1
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$26 million (1980)*
(b) State Sector	N/A
(c) Per Head	US\$3.50
(d) % Met by Production	40
5. Total Annual Production	US\$10.4 million (1980)*
6. Local Pharmaceutical Production Units	11
(a) Formulation	11
(b) Primary Production	-
7. Government Drug Control Laboratories	1

ASSOCIATED STATE

COOK ISLANDS

(A) COUNTRY DATA

1. Population	18,200 (1979)
2. National Budget (Expenditure)	US\$16.8 million (1984-85)
3. Health Budget	US\$1.38 million
4. Life Expectancy, years	N/A
5. Infant Mortality per 1,000 live births	N/A
6. Persons per hospital bed	120
7. Physicians (Doctors)	N/A
8. G.N.P. per head	N/A
9. G.N.P. per head, average growth	N/A
10. G.D.P. at current prices	N/A
11. Industry % of G.D.P.	N/A
12. Currency Exchange Rate	1 \$CI(NZ) = US\$0.50 (1984)

(B) PHARMACEUTICAL DATA

1. Pharmacists	3
2. Pharmacies	3
(a) Private 2	(b) Public 1
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$202,000
(b) State Sector	US\$202,000
(c) Per Head	US\$11.10
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation -	(b) Primary Production -
7. Government Drug Control Laboratories	-

ASSOCIATED STATE

NIUE

(A) COUNTRY DATA

1. Population	3,600 (1979)
2. National Budget (Expenditure)	US\$3.5 million (1984-85)
3. Health Budget	US\$0.39 million (1984-85)
4. Life Expectancy, years	N/A
5. Infant Mortality per 1,000 live births	N/A
6. Persons per hospital bed	88 (1978)
7. Physicians (Doctors)	N/A
8. G.N.P. per head	N/A
9. G.N.P. per head, average growth	N/A
10. G.D.P. at current prices	N/A
11. Industry % of G.D.P.	N/A
12. Currency Exchange Rate	1 NZ\$ = US\$0.50 (1984) approx.

(B) PHARMACEUTICAL DATA

1. Pharmacists	1
2. Pharmacies	1
(a) Private	(b) Public 1
3. Pharmaceutical Educational Institutions	-
4. Consumption of Medical Drugs (Annual)	
(a) Total	US\$75,000 (1984)
(b) State Sector	US\$75,000 (1984)
(c) Per Head	US\$20.83
(d) % Met by Production	-
5. Total Annual Production	-
6. Local Pharmaceutical Production Units	-
(a) Formulation -	(b) Primary Production -
7. Government Drug Control Laboratories	-

INVENTORY OF PHARMACEUTICAL MANUFACTURERS

KEY TO SYMBOLS

Scale of Operation

- A More than US\$1.0 million
- B US\$100,000 - US\$1.0 million
- C US\$10,000 - US\$100,000
- D Less than US\$10,000

N/A Data not available

Product Range

- a Antibiotics
- b Hormones
- c Vaccines
- d Vitamins/Tonics
- e Analgesics
- f Antiparasitics/Anti-infective other than 'a'
- g Others

Product Forms

- 1 Tablets
 - 2 Capsules
 - 3. Injections
 - 4 Topical Preparations
 - 5 Others
- * Denotes primary production

INVENTORY OF PHARMACEUTICAL MANUFACTURERS

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
BAHAMAS			
1. Franklin Chemicals Ltd P O Box F-2564 Freeport	A	b	*
2. Syntex Pharmaceuticals International Ltd P O Box F-2430 Freeport	A	g	1
BANGLADESH			
1. Bangladesh Pharmaceuticals Industry Ltd 29 Topkhana Road Dhaka	A	a,e,f	1,2,3,4, 5
2. Fison Bangladesh Ltd P O Box 676 Dhaka 2	A	a,d,e,f, g	1,2,3,4, 5
3. Glaxo Bangladesh Ltd Dhaka Trunk Road Fougderhat Industrial Area Chittagong	A	a,b,d,e, f,g	1,2,3,4, 5 *
4. ICI Bangladesh Manufacturers Ltd (address not supplied) Telex: 642848 ICI BJ	A	a,f,g	1,2,4,5 *
5. K D H Laboratories Ltd 184 Satmasjid Road Jafrabad Dhaka 9	C	e,f,g	1,5
6. Robinsons Bangladesh Ltd P O Box 515 Chittagong	B	e,g	1,5
7. Hoechst Pharmaceuticals Co Ltd P O Box 370 Chittagong	A	a,e,g	1,2,3,4, 5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
BANGLADESH (contd)			
8. Organon (Bangladesh) Ltd 2 Floor, Alico Building 18/20 Motijheel GPO Box 620 Dhaka	A	b,g	1,2,3,4
BARBADOS			
1. Carlisle Laboratories Ltd Warrens P O Box 682C, GPO St Michaels Bridgetown	A	a,d,g	1,2,4
2. Curacao Laboratories Barbados Ltd Fontabelle St Michaels Bridgetown	B	e	1
BELIZE			
1. Department of Hospital Pharmacy Belize City Hospital Belize	C	g	5
BRUNEI DARUSSALAM			
1. Manufacturing Unit Raja I P A Saleha Hospital Bandar Seri Begawan	C	g	4,5
CYPRUS			
1. Medochemie Ltd 1-10 Astronafton Street P O Box 1409 Limassol	A	e,g	1,2,4,5
2. Remedical Ltd P O Box 1706 Limassol	B	e,g	1,2,5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
DOMINICA			
1. Compounding Section c/o Central Medical Store Ministry of Health Government Headquarters Roseau	D	g	4,5
FIJI			
1. Government Pharmacy Rodwell Road Suva	N/A	g	2,4,5
GHANA			
1. Major & Co Manufacturing (Ghana) Ltd North Industrial Area P O Box 620 Tema	C	a	2,5
2. Netherlands African Manufacturing Co Ltd P O Box 7424 Accra	C	g	5
3. May and Baker Ghana Ltd P O Box 159 Tema	A	a,b,d,e, f,g	1,2,3,4,
4. Sterling Products Ghana Ltd P O Box 1561 Accra	B	d,e,f,g	1,5
GUYANA			
1. Guyana Pharmaceutical Corporation P O Box 10291 La Penitence Greater Georgetown	B	a	2

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
JAMAICA			
1. Federated Pharmaceuticals Ltd 2 Torrington Avenue Kingston	B	a	2
2. Reckitt & Colman (Overseas) Ltd P O Box 154 85 East Street Kingston	B	g	5
3. Mead Johnson Jamaica Ltd 16 Halfway Tree Road Kingston 5	A	g	5 *
4. Sterling Drug International Ltd P O Box 197 Kingston 5	A	d,e,f,g	1,5
KENYA			
1. Beecham of Kenya Ltd P O Box 18195 Nairobi	A	a	1,3,5
2. The Boots Co (Kenya) Ltd P O Box 42569 Nairobi	A	d,e,g	1,4,5
3. Chemafric Kensara Ltd P O Box 44993 Nairobi	B	a,d,e,g 5	1,2,3,4, 5
4. Cosmos Ltd (Pharmaceuticals) P O Box Nairobi	A	a,e,g	1,2,4,5
5. Dawa Pharmaceuticals Ltd P O Box 47105 Baba Dogo Road Nairobi	A	a,b,d,e, f,g	1,2,3,4, 5
6. Elys Chemical Industries Ltd P O Box 40411 Nairobi	A	a,d,e,f,	1,2,4,5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
KENYA (contd)			
7. Glaxo East Africa Ltd P O Box 18288 Nairobi	A	d,e,g	1,4,5
8. Infusion Kenya Ltd P O Box 30467 Nairobi	B	g	3
9. Laboratory & Allied Equipment Ltd P O Box 42875 Nairobi	A	a,b,d,e, f,g	1,2,4,5
10. Mac's Pharmaceuticals Ltd P O Box 43912 Nairobi	A	a,d,e,f, g	1,2,3,4, 5
11. Nicholas Laboratories (E.A) Ltd P O Box 18194 Enterprise Road Nairobi	A	d,g	1,5
12. Novelty Manufacturing Ltd P O Box 42708 Nairobi	B	g	5
13. Pac Laboratories Ltd P O Box 18352 Nairobi	B	a,d,e,g	2,5
14. Reckitt & Colman (Industries) Ltd P O Box 78051 Likoni Road Nairobi	B	g	4,5
15. Regal Pharmaceuticals Ltd P O Box 44421 Nairobi	B	a,d,e,g	1,2,4,5
16. Sterling Products International Ltd P O Box 78392 Nairobi	A	d,e,f,g	1,5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
KENYA (contd)			
17. Wellcome Kenya Ltd P O Private Bag Kabete	B	a,e,g	1,4,5
18. Westco Laboratories P O Box 49691 Enterprise Road Nairobi	B	d,e,f,g	1,2,4,5
19. Warner-Lambert (East Africa) Ltd P O Box 49410 Nairobi	A	g	5
20. May & Baker Ltd P O Box 30104 Dakar Road Nairobi	A	a,d,e,f, g	1,2,3,4, 5
KIRIBATI			
1. Government Pharmacy Ministry of Health Bikenibeu Tarawa	N/A	g	5
MALTA			
1. Pharmamed Ltd B16, Bulebel Industrial Estate Zejtun	A	a,d,e,g	1,2,5
MALAWI			
1. Malawi Pharmacies Ltd P O Box 51041 Limbe	C	d,e,f,g	1,5
2. Sterling Products International Ltd P. Bag 301 Chichiri Blantyre 3	A	d,e,f,g	1,4,5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
MALAYSIA			
1. Glaxo (Malaysia) Sdn Berhad P O Box 11 Petaling Jaya	A	d,e,g	1,4,5
2. Kontrak Manufacturing Services Snd Bhd P O Box 1063 Petaling Jaya	A	d,e,g	4,5
3. Ministry of Health Pharmaceutical Laboratories Petaling Jaya Selangor	A	d,e,g	1,4,5
4. Roza Manufacturing Sdn Berhad 16 Jalan 51A/227 Petaling Jaya	B	g	5
5. Sterling Drug (Malaysia) Sdn Berhad Lot 89, Jalan Enggang Kawasan Perusahaan Ampang Ulu Kelang Selangor	A	d,e,g	1,4,5
6. Warner Lamber (Mfg) Sdn Berhad Jalan 13/4 Petaling Jaya	A	d,e,g	1,2,4,5
7. May & Baker (Malaysia) Sdn Berhad P O Box 150 Selangor	A	a,d,e,f, g	1,2,3,4, 5
MAURITIUS			
1. Mauritius Pharmaceutical Manufacturing Co Ltd P O Box 685 Bell Village Port Louis	A	a,d,e,f, g	1,2,5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
NIGERIA			
1. Astra-Arewa Ltd Plot No 13 Inuwa Abdulkadir Road P O Box 4281 Kaduna-South	A	d,e,f,g	1,5
2. Beecham Ltd - Nigeria KM16, Ikorodu Road Ojata P M B 21218 Ikeja	A	g	1,5
3. Bendel Pharmaceuticals Ltd (Drugs Unit) 5 Federal Road Usefu Benin City	A	d,e,f,g	1,5
4. The Boots Co (Nigeria) Ltd Plots 22/23 Chief T.A. Doherty Layout Oregun Road P M B 21069 Ikeja	A	d,e,g	1,4
5. Chemical & Allied Products Ltd 24 Commercial Road Apapa	A	g	5
6. Embechem Ltd 3/5 Japara Street Industrial Estate P M B 21049 Ikeja	A	e,f,g,	1,5
7. Farmex Ltd KM38, Lagos-Abekuta Road Sango-Otta Ogun State	A	d,e,f,g	5
8. Glaxo Nigeria Ltd Agbara Factory c/o P M Bag 1120 Apapa	A	d,g	4,5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
NIGERIA (contd)			
9. Paterson Zochoris Industries Ltd Town Planning Way Ilupeju	A	d,e,f,g	1,5
10. Pfizer Products Ltd 1 Menry Carr Street Ikeja Lagos	C	a,d,g	1,5
11. Sterling Products (Nigeria) Ltd Plot A&K, Ilupeju Industrial Estate P O Box 3199 Lagos	A	d,e,f,g	1,5
12. Wellcome Nigeria Ltd Private Mail Bag 21099 Ikeja	A	a,e,f,g	1,4,5
13. Bayer Pharmaceuticals (Nigeria) Ltd P O Box 250 Apapa	A	d,e,f,g	1,3,4,5
14. Nigerian Hoechst Ltd P O Box 261 Ikeja Lagos	A	d,g	1
15. Pharma-Deko Ltd P O Box 2784 Lagos	A	d,f,g	1,2,4,5
16. Swiss Nigeria Chemical Co Ltd P O Box 4310 Ikeja Lagos	A	a,d,g	1,2
PAPUA NEW GUINEA			
1. Pharmaceutical Services Department of Health P O Box 3991 Boroko	N/A	g	5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
SEYCHELLES			
1. Pharmaceutical Production Unit P O Box 52 Ministry of Health Mahe	B	d,e,f,g	2,3,4,5
SIERRA LEONE			
1. Sterling Products International Ltd 131a Wilkinson Road Freetown	A	d,e,f,g	1,2,3,4,5
SINGAPORE			
1. Apex International Ltd 104 Boon Keng Road 04-08 Singapore 1233	D	g	5
2. Artex Enterprise 7 Chu Lin Road Singapore	C	g	5
3. Beacons Chemical Pte Ltd 52 Quality Road Singapore 2261	A	a,b,d,e,g	1,2,4,5
4. Beecham Pharmaceuticals Pte Ltd 38 Quality Road Singapore 2261	A	a	1,2,3
5. Borden Co Pte Ltd No. 9 Jalan Kilang Singapore 0315	A	g	5
6. Cold Storage Trading Pharmaceutical Dept 104 Pasir Panjang Road Singapore 0511	C	g	5
7. Contract Manufacturing Services Pte Ltd 2 Lorong Tukang Empat Singapore	B	d,g	1,4,5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
SINGAPORE (contd)			
8. Drug Houses of Australia (Asia) Pte Ltd 56 International Road Singapore 2261	A	a,e,g	1,2,3,4,5
9. Glaxochem (Pte) Ltd 1 Pioneer Sector 1 Jurong Singapore 2262	A	g	*
10. Jack Chia Industries (S) Pte Ltd 30 Quality Road Singapore 2261	A	g	4,5
11. Leung Kai Fook Medical Co Pte Ltd 84 South Bridge Road 03-00 Singapore 0105	A	g	5
12. Little Pharmaceutical Suppliers Pte Ltd 998, 07-04 JTC Flatted Factory Tao Payoh North Singapore 1231	B	a,b,d,g	1,2,4,5
13. Malaysia Chemist Pte Ltd 104 Boon Keng Road Singapore 1233	B	a,b,d,g	1,2,4,5
14. May & Baker Singapore Pte Ltd 14 Chin Bee Road Jurong Singapore 2261	B	g	5
15. Pharmaceutical Department Ministry of Health 2 Jalan Bukit Merah Singapore 0316	A	a,b,d,e, g	1,2,3,4, 5
16. Reckitt & Colman of Singapore Pte Ltd Taban Garden Post Office P O Box 626 Singapore 9160	A	e,g	5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
SINGAPORE (contd)			
17. Sunward Chemical Industries Co Pte Ltd 11 Wan Lee Road Singapore 2262	A	a,b,d,g	1,2,4,5
18. Union Chemical & Pharmaceutical (Pte) Ltd 113 Eunos Avenue 06-06 to 08 Gordon Industrial Building Singapore 1440	B	d,e,g	1,2,5
19. Vince Pharmaceuticals Pte Ltd P O Box 41 Singapore 2056	B	a,d,e,f, g	1,2,5
SRI LANKA			
1. Glaxo Ceylon Ltd 680 Galle Road Ratmalana	A	a,d,e,f, g	1,2,5
2. Mackwoods-Winthrop Ltd 35 Madampitiya Road P O Box 1744 Colombo	A	d,e,f,g	1,5,
3. M S J Industries (Ceylon) Ltd P O Box 430 126 Aluthmawatha Road Colombo 15	A	a,b,d,e, g	1,2,4,5
4. Reckitt & Colman of Ceylon Ltd P O Box 16 Mount Lavinia	B	e,g	1,5,
5. Unical (Ceylon) Ltd Lady Catherine Estate Ratmalana	B	a,e,f,g	1,5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
TANZANIA			
1. Keko Pharmaceutical Industries Ltd P O Box 40164 Dar es Salaam	A	a,e,f,g	1,3,5
2. Tanzania Pharmaceuticals Industries Ltd P O Box 7063 Arusha	A	a,e,f,g	1,2,3,5
TONGA			
1. Manufacturing Section Central Pharmacy Ministry of Health Nuku'Alofa	D	a,g	4,5
TRINIDAD AND TOBAGO			
1. Sterling Drug International Ltd P O Box 183 Tunapuna	A	e,f,g	1,5
UGANDA			
1. UCIL Laboratories Ltd P O Box 80 Kumi	N/A	g	1,5
2. Uganda Pharmaceuticals Ltd P O Box 65 Kampala	N/A	g	1,5
ZAMBIA			
1. Gamma Pharmaceuticals Ltd P O Box 70286 Ndola	A	a,d,e,f, g	1,2,4,5
2. General Pharmaceuticals Ltd P O Box 81131 Kabwe	B	c	5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
ZAMBIA (contd)			
3. International Chemicals Ltd P O Box 32071 Lusaka	D	g	5
4. Lusaka Pharmacy (1965) Ltd P O Box 30421 Lusaka	B	g	5
5. Medical Stores Ltd (Production Dept) P O Box 30207 Lusaka	B	g	4,5
6. National Drug Co Ltd P O Box 31343 Lusaka	A	e,f,g	1,2,4,5
7. Reckitt & Colman (Zambia) P O Box 71914 Zambia Road Skyways N'Dola	B	g	5
8. Sterling Products (Zambia) Ltd P O Box 71555 N'Dola	A	e,f,g	1,5
ZIMBABWE			
1. Ferndale-Wallace Laboratories (Pvt) Ltd P O Box 560 Bulawayo	A	e,f,g	1,4,5
2. Caps (Pvt) Ltd P O Box St 202 Southerton Harare	A	e,f,g	1,2,3,4, 5
3. Reckitt & Colman (Pvt) Ltd P O Box St 93 Southerton Harare	B	e,g	5

Name and Address of Manufacturer	Scale of Operation	Product Range	Product Forms
ZIMBABWE (contd)			
4. PFizer (Pvt) Ltd P O Box 450 Harare	A	a,d,e,f, g	1,2,3,4, 5
5. Geddes Ltd 1 Moffat Street Harare	B	g	5
6. Ian Wilson (Pvt) Ltd 6 Falcon Street Belmont South Bulawayo	B	a,e,f,g	1,4,5
7. DatLabs (Pvt) Ltd P O Box 8476 Belmont Bulawayo	A	a,d,e,f, g	1,2,3,4, 5
8. Sterling Products International Ltd 93 Highfields Road Southerton Harare	A	e,f,g	1,5
9. Wallace Laboratories (Pvt) Ltd P O Box 560 5 Wallasey Street Donnington Bulawayo	C	e,f,g	4,5

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