PRIVATE SECTOR MEDICAL CLINICS AND HOSPITAL SURVEY

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Glossary

Acute care	Medical interventions provided for patients requiring short inpatient stays and frequently involving emergency diagnosis and therapy
Average LOS	Length of stay for an "inpatient" expressed as an mean of days for all patients staying at that facility or in that category of a facility for a specific period of time (usually one month or one fiscal or calendar year)
Bed capacity	Number of hospital beds in operation expressed as a population or bed-to-bed ratio
Coverage	Provision of services to a specified population or geographic area
Fee-for-service	Direct payments from household members ("out-of pocket") for health care services "Hotel" features Goods or services in medical care that mimic those provided at a hotel, e.g., lodging, food, laundry, non-emergency transport
In-patient/out-patient	"In-patient" means "indoor" patient or patients admitted to the hospital; "out-patient" means "outdoor" or "ambulatory" patient—those who are treated at the hospital but not admitted as patients
Intervention	A therapy or treatment administered for a specified diagnosis at a medical facility
Investigation	A diagnosis which results from a diagnostic or investigative process; the basis of interventions at medical facilities
Oligopoly pricing	Few providers setting prices for health care services at levels below those allowed by monopoly markets but above those charged in competitive markets.
Polyclinic	A private clinic serving non-specialist health care functions and serving a non-specialized population
"Private" beds	Beds in operation that are owned by other than government and NGO facilities
"Private" clinic	A medical or health care facility whose ownership and registration is other than NGO or governmental
Quality of care	An assessment or measurement based upon a combination of professional criteria and patient/consumer satisfaction—a mix of professional needs assessment and "felt needs" or consumer assessment
Share of total beds	The proportion of private beds relative to total number of beds in an area of interest (population or geographic area)
"Substitute consumers	When doctors or other professionals act on behalf of patients due to a lack of information and training on the part of the consumer; also known as the "principal-agent" relationship
"Super profits"	Greater levels of return to capital for investors than would be available through other common sources (e.g., interest paid on commercial bank loans)

Introduction

Bangladesh policy-makers, facing public sector resource constraints, are exploring private sector options for the delivery of and ultimately financing of health services. Planning documents now drafted for the Health and Population Sector Programme, 1998-2003 [HPSP], suggest that the Ministry of Health and Family Welfare plans to "develop principles for partnership with [the] private sector and collect baseline information on costs, efficiency, capacity for ESP [Essential Service Package] delivery and training needs."

In setting forth principles for "partnerships," an understanding must be developed of the existing shape of the "partnership," including its geographical distribution, its market service characteristics, its utilisation, and its present financing and capitalisation. Already, a significant NGO base exists in Bangladesh with extensive geographic coverage, utilisation and funding. The sustainability of this base is questionable should development partner contributions be removed. Several forms of partnerships with the private for profit sector can be envisaged including:

- the use of private/public insurance and family savings accounts, as advocated in recent health care financing conferences[1];
- the contracting out of facility management or health service delivery; and
- the encouragement of private for profit in-patient clinics.

To establish such partnerships requires a detailed understanding of the private sector already in place in Bangladesh.

Paragraph 38 of the recent World Bank Pre-appraisal Mission Aide Memoire states that there is insufficient data on private sector hospitals to suggest immediate intervention to encourage them. The Aide Memoire states that information is required by policy makers concerning:

- The geographic distribution of private sector hospital facilities.
- The impact of the regulatory framework and the scope for contracting out services to the private hospitals.
- Alternative models of private sector and hospital facilities, the quality of services provided, the efficiency and effectiveness of services and equity of access.

Fortunately, considerable information is now being accumulated about the pattern of private sector expenditure in Bangladesh from GOB sources. The Bangladesh Bureau of Statistics has conducted Health Expenditure Surveys that report on household expenditures for private sector health services and the Bangladesh Institute of Development Studies has conducted household surveys that indicate the dimensions of private health expenditures.

In addition, the Health Economics Unit [HEU] of the Ministry of Health and Family Welfare is engaged in two efforts designed to expand the base of information available concerning the Bangladesh private health sector:

1. The HEU *Private Medical Clinics and Hospital Survey* summarised in this document is based on a sample of 257 of the 584 private clinics (44 percent) operating in Bangladesh in 1997 under the terms of the Medical Practice and Private Clinics and Laboratories Ordinance of 1982. Data International of Dhaka conducted the survey under the guidance of the HEU of the Ministry of Health and Family Welfare. The survey reports upon 257 of the 584 private medical clinics of the country in 18 major towns and cities

[1] Schieber, George and Akiko Maeda, "A Curmudgeon's Guide to Financing Health Care in Developing Countries," in *Innovations in Health Care Financing: Proceedings of a World Bank Conference, March 10-11, 1997* (Washington, D.C: The World Bank, 1997), p. 36.

in Bangladesh representing approximately 10,400 operating clinic beds. It provides baseline information about their:

- Main health service functions;
- Capacity and utilisation;
- Staff characteristics and patterns;
- Quality and referral patterns; and
- Cost and revenues.

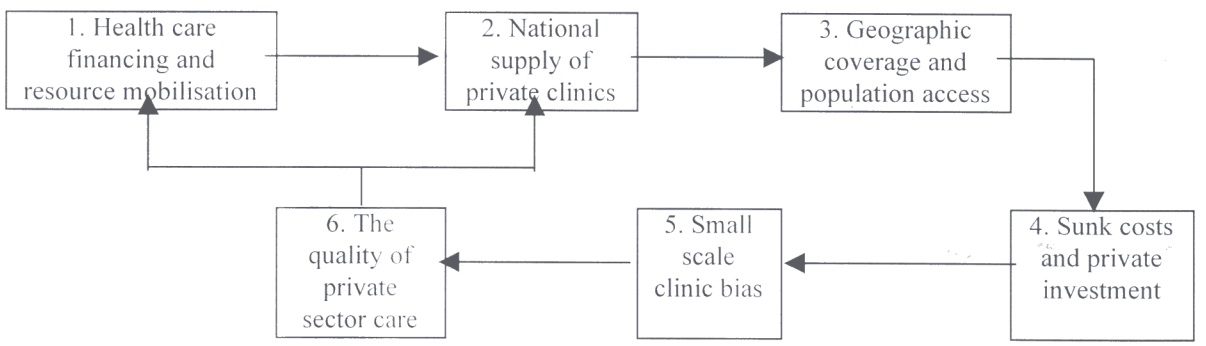
2. The *National Health Accounts* [NHA] sub-project of HEU currently is developing an integrated view of sources and uses of funds across the health sector, including private health components that range from allopathic care through traditional health services. The NHA data also presents a view of pharmaceutical and traditional medications provided by private sources.

This report presents the findings of the Private Medical Clinics Survey, focusing attention on the main policy questions involved with public-private "partnerships" for the Bangladesh health sector. Part I reviews major policy issues concerning private medical clinics in the country. Part II provides a regulatory overview for private medical clinics. Part III consists of a "fact profile" of private sector medical clinics in the DI/HEU survey. Part IV consists of a study of economic "market characteristics" that impact on the development of public-private "partnerships."

Part I: Policy Issues for Private Medical Clinics and Public-Private "Partnerships" in Bangladesh.

The Private Medical Clinics Survey virtually amounts to a complete *census* of the private medical clinics now operating in Bangladesh. It thus provides preliminary data required for an improved policy balance between public and private health services. This information brings clearly into view six major policy issues of vital concern for the formulation of public-private "partnerships" in Bangladesh. The links between these policy issues are illustrated in Figure 1.

Figure 1: Private Sector Policy Issues



- ***Issue 1****: Health Care Financing and Resource Mobilisation.* After review of the existing provider profile for private medical clinics and hospitals, policy-makers will have a factual base from which to consider the use of private providers as a means to channel and mobilise resources for health care provision.

Private sector fee-for-service care now mobilises a considerable amount of out-of-pocket expenditure from Bangladesh households. This expenditure presently flows to the private medical clinics for the type, quantity, and quality of services they provide. What is the opportunity cost of these financial resources? Are these resources being used in the most efficient and effective manner? Are they being mobilised at the expense of expenditure on more cost effective and higher priority services? Are the services provided consistent with the efficacy of broader health sector goals? These questions should be examined to help determine an appropriate public-private financial mix.

- ***Issue2****: The National Supply of Private Clinics.* The Private Medical Clinics Survey provides a global "fact profile" for existing private medical clinics and their associated utilisation. This information helps address the key question of whether and how the private sector can increase its supply of health services in line with GOB objectives. Further, the data helps identify the role private clinics can play in providing a national coverage in health care services.

The HEU profile of private clinics and hospitals reveals clear and well-established patterns in the utilisation and characteristics of existing private clinic services as well as an initial understanding of overall expenditure for private medical services. Policy-makers will find in the Private Medical Clinics Survey profile a picture of how owners of private clinics seek to profitably respond to patient demand patterns and the preferences of physicians. This information needs to be built upon by policy makers to guide the development of rational health sector policies and regulations. This will help ensure the potential contribution of the private sector to HPSP objectives is maximised whilst avoiding duplication, waste, and allocational inefficiency.

- ***Issue 3**: Geographic coverage and population access.* The HEU Private Clinic Survey shows that 220 of the 584 medical clinics now operating in Bangladesh are located in Dhaka. Further, the relatively "high-end" services provided through the clinics and hospitals in the Private Medical Clinic Survey suggest that they are likely to serve the "non-poor" in urban or relatively urban areas. If essential health sector objectives are to be achieved through private medical clinics, a key issue becomes how to provide equitable geographical access and coverage through these providers.

Geographical and income distribution issues bear directly on the relationship between public and private provision of health services. If private medical clinics are largely an urban phenomenon associated with areas of rising income, then what are the implications for their use in the provision of health sector services? If private services become concentrated in their geographic coverage and income groups they serve, then what will be the effect on the effective, efficient targeting of GOB health care to redress inequities in gender, income, nutrition, and general health outcomes nationally?

- ***Issue 4**: Sunk Costs and Capital Investment.* Given the existing investment pattern for private health services, what range of health services are likely to be most profitable for private clinics? What entry and exit barriers, including those that go beyond regulatory concerns, exist for the private provision of effective, efficient health care services?

This policy area is crucial for regulatory reform, since it asks whether existing investment in the private sector can be re-directed to arrive at a more technically efficient allocation of resources in the Bangladesh. Further, recent draft reports concerning the regulatory environment of the private sector have usefully identified specific areas where policy modifications may promote "partnership" between the public and purely private elements of the health sector in the country.[2]

If the GOB envisions regulatory reforms to encourage "partnerships" that defy the existing pattern of sunk costs and capitalisation for private medical clinics, what may be the appropriate regulatory and financial incentives required to move from the existing situation—Position "A"—to a more desirable situation—Position "B"? What would be the cost of these incentives and can they be afforded by the GOB?

- ***Issue 5:** The small-scale clinic bias.* There is a clear preference amongst the private sector towards small inpatient clinics. Are small clinics the optimal size in terms of cost efficiency and service quality? What are the factors affecting clinic size? Can we determine the effect of policy distortions, management failure and other market imperfections on the size and growth of clinics? Is there a correlation between clinic size and service quality?

If the private sector is to be given an expanded role it is important that policy makers understand what helps or impedes private clinic growth. In a competitive market, the private sector driven by the profit motive will operate at a clinic size where average costs are lowest and marginal revenues equal marginal costs. Firms can only operate above lowest average costs if they operate in an imperfectly competitive market. The source of imperfect market competition may be due to local geographic monopolies or the impact of policy or other market distortions. If distortions cause clinics to work at levels above minimum average costs then efficiency gains from private sector provision may be undermined.

- ***Issue 6**: Private Sector Quality of Care.* The HEU Private Medical Clinic Survey attempts in various ways to profile the cost-quality dimension of private services.

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[2] Khan, Mahmud M., "The Regulatory Environment faced by the Private Health Care Sector of Bangladesh: First Draft," (ICDDR,B: Dhaka), 1998.

Measuring the quality of care is a complex and multi-sided issue. At this stage the HEU has limited itself to an understanding of quality in line with existing GOB policy. The HEU survey reveals a number of quality deficiencies that are of significant concern for policy-makers in the Bangladesh health sector. In particularly in asking whether private medical clinic services can be used to improve the quality and effectiveness of health services in the country.

The quality of health services reflects more the judgement of physicians and providers than the wishes of consuming households. This is a result of the asymmetry of information between providers and health care consumers. In effect, physicians and other health professionals, by acting on behalf of patients, make technical and financial decisions in their stead. Health supply and demand relationships are complicated because doctors are both suppliers and "substitute consumers." Consequently, quality is not simply a matter of consumer preferences and utilities, but also includes the professional views of the health provider—whether in a public or a private health service facility. In the case of private clinics, health care quality questions are complicated further. For policy-makers the issue of how to raise quality at public facilities should not just "assume-away" questions concerning private sector quality. The following questions are of considerable policy relevance:

- If quality is high in private medical facilities, will important revenues in the form of fees be lost from the public to the private sector?
- Is utilisation of private medical facilities dependent upon low quality in public services? What will happen to the viability of private sector services as quality improves in the public sector?
- Is quality for private sector health services the same as for private sector medical services where consumer perceptions are concerned?
- What are the "opportunity costs" for consumers when private sector quality is either "high" or "low"—since both cases are of concern to an appropriate public-private mix in the health sector?
- What determines quality in the private sector and in the public sector? Is it the professional or "hotel" features of quality?

These issues should be raised even at this early point in understanding the private sector and its role in the financing and delivery of health services in Bangladesh. They point to fundamental linkages affecting the future of sustainable health services in the country and suggest that policy development must take the lead in developing a meaningful mix of public and private health care for the country.

PART II: Regulatory Overview for Private Medical Clinics in Bangladesh

The 1982 Medical Practice and Private Clinics and Laboratories (Regulation) Ordinance (No. IV) of 1982 defines the main elements of the regulatory framework affecting the private provision of health care services in Bangladesh. A more detailed analysis of the impact of other regulations including investment incentives, VAT and corporate taxation has been undertaken separately by M. Mahmud Khan for the IBRD.[3]

The 1982 Ordinance specifies that:

"No person shall establish a private clinic without a licence (from the Ministry of Health and Family Welfare) under this Ordinance"

The MOHFW will grant a clinic a License if it has:

a) Proper accommodation with hygienic environment for the patients.
b) At least 80 square feet of floor space for each patient.
c) An air-conditioned operating theatre.
d) Up to 37 types of specified essential equipment (ranging from an autoclave to bed pan).
e) Adequate supply of life saving and essential medicines.
f) Round the clock presence of one registered medical practitioners two nurses and one sweeper per ten beds.
g) Specialists for the operation treatment and supervision of patients.

These conditions are purely input based with no mention or scope for monitoring the actual quality of clinical care provided. The emphasis on input based "quality" measures is consistent with the historic "planned" emphasis given to health services throughout the World in the 1970s and early 1980s. During this period Bangladesh followed international trends in seeking to maximise health care inputs without any consideration of the quality of health care service or outcomes. Much of the focus of international health reforms in the late 1980s and 1990s has been to redirect attention away from input based public sector provision towards health systems that pay more attention to the quality of health care services and outcomes. This has been particularly important with the development of public private sector partnerships and the need to ensure the quality of care is maintained.

In the area of staffing, the Ordinance specifies an input ratio that appears more rational than that exhibited in public sector hospitals where ratios of five doctors to one nurse have been recorded. Despite this, the 1982 Ordinance distorts providers' attention towards inputs and not outcomes. Unless genuine market competition exists, this could have the side effect of encouraging cost escalation, as providers seek to maximising inputs without paying attention to cost or the quality of outcomes.

Clinic owners are thereby encouraged to register as a private clinic with the DGHS by focusing attention on health care inputs. Applications are made to the Director-General who issues them once the necessary checks have been made and the registration fee of TK 5,000 paid. The Ordinance does not specify any time period during which a licensing decision will be made. For example, given the lack of resources available to staff at the Ministry's registration unit, decisions could be delayed some considerable time until an inspection and approval is given.

[3] M. Mahmud Khan, *Op Cit*

Clinic owners have the right to appeal against the rejection of a license application in writing within 30 days to the Government. How the Government then acts is not defined. The Ordinance simply states that the decision of the Government on an appeal or a petition for review shall be final and shall not be called into question in or by any court. The penalty for failing to comply is set as TK 5,000 and or six-month imprisonment and forfeiture to the Government of all moveable property in the clinic. Once a license is issued it needs to be renewed annually for a fee of TK 5000. While the Taka penalty is not onerous, the threat of imprisonment clearly is. It provides MOH inspectors with considerable latitude for demanding a "rent" from clinic owners for approving registration.

Table 1 provides information on the number of registered clinics according to MOHFW records and the numbers enumerated during the survey by Data International. It shows that 27 percent of the 252 clinics surveyed were not registered and that most of those unregistered had come in to existence since 1991. Some 65% of the clinics surveyed in Rangpur are unregistered with between 42 percent and 40 percent unregistered in Rajshahi, Kushtia and Barisal and 33 percent in Comilla and Mymensingh. In comparison only 11 percent were unregistered in Dhaka.

Table 1: Growth of registered and non-registered private clinics surveyed

City / Town	Registration Status								
	Yes				No				
	Year of establishment			Sub-Total	Year of establishment			Sub-Total	Total
	Before 90	1981-90	1991 onward		before 1980	1981-90	1991 onward		
Barisal*	1	1	1	3			2	2	5
Bogra*		3	6	9			2	2	11
B Baria		2	3	5			2	2	7
Chittagong*		15	5	20			3	3	23
Comilla*	1	1	6	8			4	4	12
Dhaka*	2	18	19	39			5	5	44
Dinajpur*	1	4	1	6	1		1	2	8
Faridpur*		2	2	4			1	1	5
Jessore		2	5	7			1	1	8
Khulna*		9	11	20	1		11	12	32
Kushtia		2	1	3			2	2	5
Mymensingh*	1	8	7	16			8	8	24
Tangail		1	2	3					3
Noakhali	1		4	5					5
Pabna		2	4	6					6
Rajshahi*	3	3	5	11		1	7	8	19
Rangpur*	1	2	4	7	1	1	11	13	20
Sylhet*		5	7	12			3	3	15
Total	**11**	**80**	**93**	**184**	**3**	**2**	**63**	**68**	**252**

* Has govt. medical college hospital

The majority of smaller clinics in small towns are less inclined to register with the DGHS because:

- most of the small clinic owners do not want to make a permanent or large scale investment in the clinic business and hence did not want to register
- in smaller towns there is less visibility and information about the Government regulations and penalties so that clinic owners are less concerned about registration.

Discussions with clinic owners revealed that bureaucratic delays were frequently encountered in getting the DGHS inspection teams to visit but that these can be overcome and the registration approved with payment of a lump sum amount to the inspectors. The delays and need for an additional payment were sited as reasons for non-registration, although these were not seen as impediments if the clinic owner knew officials in the DGHS.

This is consistent with the 50% of clinic owners interviewed by M.M Khan who reported problems and harassment during the registration process[4].

Theoretically, clinics have to undergo an initial inspection for registration and then annual inspection for license renewal. Manpower and transport budget constraints restrict the ability of the DGHS to promptly visit all the new clinics let alone to revisit existing clinics. This clearly contributes to delays and provides clinics with the opportunity to avoid registration or gain registration under false pretences. For example, some clinic owners indicated that it was possible to borrow the equipment necessary to meet registration guidelines. MM Kahn also indicated that clinic owners reported the registration process to be irregular with no clear link between pre-registration conditions and actual registration.

To examine further the link between the quality of health care inputs and registration, all of the clinics surveyed by Data International were classified according to an "input quality index". Each clinic was graded A through D according to the cleanliness of the facilities, the quantity and condition of clinical and non-clinical equipment, the ratio of doctors and nurses to beds and the existence of air conditioned rooms. The best "quality" clinics were graded A and the worst quality D. Clinics graded C were judged to be just at or below the standard required to obtain registration according to the 1982 Ordinance. It should be stressed that the quality grading did not examine the quality of clinical care provided but focused on the number and quality of inputs. Table 2 presents the distribution by city/town of clinics registered and unregistered graded by input quality.

Table 2: Registration status of private clinics by quality and location.

City / Town	Registration Status						
	Yes			No			
	Quality Index		Sub-total	Quality Index		Sub-total	Total
	"High quality" Grade A and B	"Low quality" Grade C and D		"High quality" Grade A and B	"Low quality" Grade C and D		
Barisal*	-	3	3	-	2	2	5
Bogra*	5	4	9	-	2	2	11
B Baria	1	4	5	1	1	2	7
Chittagong*	19	1	20	1	2	3	23
Comilla*	7	1	8	-	4	4	12
Dhaka*	30	9	39	1	4	5	44
Dinajpur*	1	5	6	-	2	2	8
Faridpur*	2	2	4	-	1	1	5
Jessore	1	5	7	1	-	1	8
Khulna*	5	15	20	1	11	12	32
Kushtia	-	3	3	-	2	2	5
Mymensingh*	3	13	16	-	8	8	24
Tangail	-	3	3	-	-	-	3
Noakhali	3	2	5	-	-	-	5
Pabna	-	6	6	-	-	-	6
Rajshahi*	5	6	11	1	7	8	19
Rangpur*	-	7	7	-	13	13	20
Sylhet*	10	2	12	3	-	3	15
Total	**92**	**92**	**184**	**9**	**59**	**68**	**252**
Per cent	**36.5%**	**36.5%**	**73%**	**3.6%**	**23.4%**	**27%**	**100%**

The analysis indicates that half of the clinics registered either barely meet or fall below the standard of inputs defined by the 1982 Ordinance as necessary to obtain a registration. This suggests that either clinics are being registered despite the quality of their facilities and inputs falling below the standard set by the 1982 Ordinance or that the quality of inputs

[4] M. Mahmud Khan, *Op Cit*

deteriorates after registration. In either case the analysis confirms the irregularity in registration reported by MM Kahn. It also confirms evidence from elsewhere on the bureaucratic impediments to small business development in other parts of the Bangladeshi economy as recognised in numerous policy statements by the Prime Minister Sheikh Hasina.

The distribution of registered lower quality clinics seems not to depend on the size of the City or its location. For example, both Mymensingh and Khulna have between 75% and 80% of their clinics graded as lower quality. Dhaka, Chittagong, Sylhet and Comilla are the only Cities where the majority of their clinics are judged to be of higher quality. A small minority of clinics (4%) is unregistered despite meeting the input quality criterion required for registration. The majority of the 27% of unregistered clinics were found to be of low quality that would not pass the registration process if properly applied.

- The 1982 Ordinance is outdated and focuses purely on input based measures of service quality.
- There is no attention given in the regulations to the quality of care actually provided by private clinics.
- The apparently arbitrary application of the regulations acts as an impediment to clinic registration and development and undermines the impact of the 1982 Ordinance in even controlling the quality of inputs.
- The arbitrary application of the regulations is due in part to the lack of resources available to the DGHS to implement them and to the scope provided for ad hoc decisions based on "rent" collection by the inspection teams.

Policy Hypotheses and Linkages #1

Policy hypotheses	*Policy Issue Linkages*
1. In common with other sectors of the economy, the private health care sector suffers from policy distortions that discourage firms to grow in size. Policy distortions also focus attention on inputs and not the quality of care per se.	• Health care financing issue • National coverage issue • Sunk costs and investment issue • Size of operation issue • Quality issue

Part III: A Profile of Private Medical Clinics in Bangladesh

Methodology for the Private Medical Clinics Survey

Survey Methods: Definition of Private Clinics and Hospitals

The HEU Research Paper No. 5, "An assessment of the Flow of Funds in the Health and Population Sector in Bangladesh," (1997)[5] noted that private sector health care activity in Bangladesh comes in many shapes and forms. It includes Ayurvedic practitioners, traditional birth attendants, staff in public facilities charging unofficial fees for service, not-for profit NGO facilities and for-profit clinics and hospitals. The focus of this paper is on the provision of allopathic care by qualified practitioners in for profit facilities that are privately owned and managed. As Talukdar (1997)[6] noted, however, such care can be further sub-classified as:

1. Private physician consultations.
2. Hospital and clinical care.
3. Diagnostic laboratory services.
4. Production and distribution of pharmaceuticals and medical equipment and supplies.
5. Medical education.

The HEU Private Medical Clinics Survey limits itself to examining in-patient hospital and clinical care. Those medical clinics providing out-patient care and in-patient care were surveyed, but those clinics only providing out-patient services were excluded. For simplicity we follow the convention in Bangladesh of using the term clinic to describe a facility providing such in-patient and out-patient care.

Survey Methods: Sampling Frame and Estimation Techniques

A critical question for the Private Medical Clinics Survey is: "How many private clinics fitting the HEU survey definition actually operate in Bangladesh?" Since the HEU survey approximated (44 percent) but did not completely achieve a national census (100 percent), it is important to understand exactly how the total number of clinics was arrived at and how the 44.3 percent included in the HEU survey were determined.
The sampling frame—the 584 clinics nation-wide—is the result of an estimation exercise. There is no up to date national list of Bangladesh private medical clinics. Institutional capacity is not in place to generate comprehensive information on this health sub-sector, even for a list of clinic names and addresses. The Director, Hospital and Private Clinics under the Directorate General of Health Services (DGHS) of the Bangladesh Ministry of Health and Family Welfare (MOHFW) maintains a list of registered private clinics across Bangladesh. This directory does not include unregistered units—later estimated in the HEU survey to comprise over 25 percent of all private clinics. Further, the DGHS listing is not updated annually with the last update occurring in 1994. Another source of information could be The National Board of Revenue (NBR) of the Ministry of Finance, which is entrusted with the collection of Value Added Tax (VAT) as well as other forms of taxes.

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[5] N. Kawnine, S.Thomas, J.Killingsworth & K. Vincent "An assessment of the flow of funds in N the Health and Population Sector in Bangladesh", Research Paper No. 5 Health Economics Unit (Dhaka: MOHFW, January 1997).

[6] Rahim Talukdar "Private Health Sector Facilities in Bangladesh", Report by the Institute of Economic and Private Sector Development to the Institute for Health Sector Development (Dhaka: IEPSD, 15 October 1997). Several other IEPSD reports were also reviewed but not used in this document.

Enterprises, including private clinics, whose annual revenue is over Taka fifteen lakhs are required to pay VAT and smaller units are expected to pay a turnover tax. Unfortunately, the coverage o[1] N. Kawnine, S.Thomas, J.Killingsworth & K. Vincent "An assessment of the flow of funds in N the Health and Population Sector in Bangladesh", Research Paper No. 5 Health Economics Unit (Dhaka: MOHFW, January 1997).

[1] Rahim Talukdar "Private Health Sector Facilities in Bangladesh", Report by the Institute of Economic and Private Sector Development to the Institute for Health Sector Development (Dhaka: IEPSD, 15 October 1997). Several other IEPSD reports were also reviewed but not used in this document.

f the NBR is quite limited. The NBR has yet to create a database for private clinics and apparently depend on the MOHFW list for their activities. Neither the Bangladesh Medical Association (BMA) nor other private or non-governmental associations identified with the medical sector provide detailed information on private clinics across Bangladesh.

As a result of this incomplete information, the Private Medical Clinics Survey created an advisory panel to recommend an estimation approach. Since, in addition to developing information for the five policy issues listed above, the survey sought to explore size, structure, organisational, and market structure information regarding a nation-wide sample of private medical clinics, the HEU estimate of total number of private medical clinics operating in 1997 adopted the following criteria:

1. *Comprehensiveness*. The survey should cover the full range of towns and cities by addressing the nineteen administrative district headquarters that existed for Bangladesh in the 1960's. For these nineteen district headquarter towns a complete census should be sought.
2. *Intensiveness*. Because the HEU pre-survey count indicated that 177 clinics existed in Dhaka, it was decided that time and budgetary constraints dictated a sub-sample. From the 177 clinics identified by the pre-survey, a two-stage, stratified sample was generated consisting of 44 clinics drawn from the areas where the survey advisory panel knew medical services to be concentrated.

The main problem in estimating the total number of clinics in the survey-sampling frame lay with the estimation of clinics in small towns not included in the study. Fortunately, the HEU Facility Efficiency Survey, underway at the time, provided a source of information. This found that the small towns sampled had an average of 2.9 private medical clinics in several with 12 beds per facility. This figure was used to extrapolate the number of clinics in the 46 small towns not covered by the survey to give a total of 133 (46 x 2.9). This figure was added to the 177 clinics identified for Dhaka in the pre-survey and the 274 clinics in district headquarter towns identified in the field census to give a total of 584 private clinics:

Dhaka City clinic count	177
District headquarter clinic count	274
Small town estimate (46 towns x 2.9)	133
Total	584

The survey advisory committee concluded early on that it was impractical to cover all the smaller towns in Bangladesh, since previous experience and the HEU facility efficiency study had demonstrated that very few in-patient only or in-patient and out-patient clinics were to be found in these towns. As a result, the sample eventually drawn focused on using the 18 district headquarter towns and Dhaka City proper as the key to arriving at a nationally representative body of information. Outside Dhaka, the survey succeeded in covering over 75% of the existing units. This figure would have been higher except that non-responses resulted from non-availability of the clinic owner or a refusal to share information. The coverage in the survey was as follows:

Dhaka City	44 percent (44 of 177)
District headquarter towns	75 percent (206 of 274)
Small towns	5.3 percent (7 of 133)

Survey Methods: Data Collection Instrument and Process

A structured questionnaire was used as the primary tool for collecting quantitative and qualitative information from clinics. Beyond the "fact profile" information, the thrust of this questionnaire was the structure of markets for private medical clinic services when these clinics act as firms—firms that vary in type, quantity, and quality of services. In addition, the questionnaire was designed to portray revenue and expenditure patterns for private medical clinics as well as key information about investment and ownership of these facilities.

Appointments were scheduled before a two-person research team interviewed the Principal Owner or a Senior Director of a clinic, who were often assisted by an Administrative Officer or a Finance Officer. Multiple visits were necessary on many occasions primarily due to high demands on the time of the respondents at the clinic. Almost all the interviews were conducted at the clinic site, and the owners usually allowed the research team to take a tour of the clinic with the objective of inspecting the facilities and the equipment.

Aside from the individual interviews, about half a dozen focus group discussions were organised in Dhaka, Chittagong and Mymensingh. The focus group's comprised of practising physicians (consultants), clinic owners, and informed citizens (pharmacists, university professors, businessmen, others). The purpose of these group discussions was to cross-check the observations made by clinic owners during the personal interviews. Also, the meetings contemplated on policy issues and on cultural institutional and local factors affecting the growth of private sector involvement in the health sector.

The data collection and data analysis required three months -- June to September 1997. A draft questionnaire was pre-tested in Dhaka during late May, 1997. Once the questionnaire was finalised, the field survey commenced in Dhaka city from early June, 1997. From late June, field visits outside Dhaka begun, which ended in August, 1997. Since a larger number of samples were covered in Dhaka, interviews in the capital continued throughout the field survey period. Data editing, entry and processing started within two weeks of field survey commencement.

Secondary data and information on listing of clinics, government regulations, tax structures, etc. were collated from varied sources. A preliminary listing of clinics was collected from the Directorate General of Health Services (DGHS). During the field visits, particularly outside Dhaka, the list was updated as new clinics were identified and the closure of old clinics were revealed.

Basic Fact Profile for Private Medical Clinics in Bangladesh

The Private Medical Clinics Survey reports on 18 major towns and cities of Bangladesh. These 18 locations, with the exception of Brahmanbaria (identified as B Baria in the tables), were major administrative district towns since the partitioning of India in 1947 and cover the 19 major administrative locations in the country. Patuakhali has not been included since it was found that there are 3 or less private clinics functioning there. As a result, Brahmanbaria was surveyed to make up for Patuakhali. Finally, the survey materials collected for Narayanganj appear under Dhaka city.

Number and Location of Clinics

Table 3 presents the national estimate of private clinics in Bangladesh in 1997.

Table 3: National estimate of Total Number of Private Clinics Operating in Bangladesh, 1997.

City/Town	Number of Clinics Surveyed	Number of Clinics not Surveyed	Total number of Clinics
Barisal*	5	2	7
Bogra*	11	6	17
B'Baria	7	4	11
Chittagong*	23	5	28
Comilla*	12	2	14
Dhaka*	44	133	177
Dinajpur*	8	2	10
Faridpur*	5	4	9
Jessore	8	3	11
Khulna*	32	15	47
Kushtia	5	3	8
Mymensingh*	24	4	28
Tangail	3	1	4
Noakhali	5	2	7
Pabna	6	0	6
Rajshahi*	19	6	25
Rangpur*	20	4	24
Sylhet*	15	3	18
Others	0	133	133
Total	**252**	**332**	**584**

Note: * Medical College Hospitals

Only Dhaka, Faridpur and the 46 smaller towns (with their 133 estimated private clinics) received less than 50 percent coverage in the survey. It is worth noting at this point that government Medical College hospitals are present in 12 of these 18 district towns (denoted by a *) and that physicians with qualifications and experience and a patient base suited to private clinic operation are likely to be concentrated near teaching hospitals. In fact, where these hospitals are present, the largest proportion of private clinics were found. Roughly, 60 percent of the private clinics are in these population centres and, if the 133 smaller town clinics are removed from the total number of clinics (584-133 = 451), then approximately 90 percent of the clinics are located in cities or towns where medical college hospitals are present.

The hypothesis that GOB doctors are involved in the ownership and operation of private clinics will be considered again later as this report considers ownership structure data from the survey. This feature of the Private Medical Clinics Survey fact profile suggests the following policy hypotheses and issue linkages:

Policy Hypotheses and Linkages #2

Policy hypotheses	*Policy Issue Linkages*
1. Private medical clinics appear where there are a significant mass of medical college professors to own and operate them.	• National coverage Issue • Geographical/income Linkage Issue • Sunk costs/investments Issue
2. The proportion of private medical clinics owned and operated by active medical college professors exceeds those owned and operated by retired professors.	• National coverage Issue • Health care financing Issue • Sunk costs/investments Issue
3. Staff at private medical clinics consist of owners and directors from among medical college professors with residents acting as junior staff to provide diagnosis and interventions	• National coverage Issue • Quality Issue

Ownership of Private Medical Clinics

The Private Medical Clinics Survey showed that medical doctors own 75% of private clinics.

Doctor Ownership 185
Non-Doctor Ownership 67
Total 252

The ownership ratio between doctors and non-doctors is nearly three to one across the country. There is a similar pattern in the larger towns and cities, where a public medical teaching hospital is located, and the towns with no medical teaching hospitals. It has been observed that clinics owned by doctors have a higher propensity to register with the MOHFW than non-doctor owned clinics.

Private and Public Bed Capacity

The level and distribution of private in-patient services can be gauged by considering the estimated number of beds provided by private medical clinics. This information could provide key information in the development of GOB/private sector "partnerships." Table 4 presents the distribution of public and private sector beds by city and towns.

Table 4: Estimated bed capacity for Private Clinics and GOB District Sadar Hospitals and Medical Colleges in Bangladesh, 1997.

City/Town	Estimated Number of Private Clinic Beds in Operation	GOB District, Specialist, and Medical College Hospital Beds in Operation	Thana Health Complex Beds in Operation (# THC's)	Total Number of Beds
Barisal*	126	650	289 (10)	1065
Bogra*	264	120	310 (10)	694
B'Baria	135	120	196 (7)	451
Chittagong*	659	1068	434 (14)	2161
Comilla*	310	350	320 (11)	980
Dhaka*	4248	3915	186 (6)*	8349
Dinajpur*	151	150	372 (12)	673
Faridpur*	248	370	186 (6)	804
Jessore	132	120	217 (7)	469
Khulna*	715	520	289 (10)	1524
Kushtia	106	100	155 (5)	361
Mymensingh*	344	650	310 (10)	1304
Noakhali	119	150	155 (5)	424
Pabna	96	520	248 (8)	864
Rajshahi*	329	700	279 (9)	1308
Rangpur*	347	670	217 (7)	1234
Sylhet*	420	600	279 (9)	1299
Tangail	35	100	279 (9)	414
Others	1596	3150	n.a. (46)	4746
Total	**10380**	**14023**	**4721**	**29124**

It is important to note, in passing, that Dhaka has THC's only in its peri-urban area, thus distorting its THC and, to some extent, its Total GOB figures. Our estimated suggest that overall private clinics provide 36% of the estimated total in-patient care beds in Bangladesh. In Dhaka, Khulna and Bogra private beds outnumber public hospital beds but are less than hospital and Thana health complex beds combined.

There does not appear to be a clear correlation between the distribution of private clinic beds and public beds at various kinds of GOB. Table 5, below indicates low and high proportions in the surveyed areas for private beds relative to GOB facilities.

Table 5: Estimated bed capacity for Private Clinics and GOB District Sadar Hospitals and Medical Colleges in Bangladesh, 1997—Excluding Dhaka Division.

Range for Private Share of Beds	Private as a percentage of Thana Beds	Private as a percentage of District Hospital and Medical College Beds	Pirvate as a percentage of Total GOB Beds
Lowest Private Proportion	Taingail (13%) Pabna (38%) Faridpur (41%) Barisal (44%)	Pabna (19%) Barisal (19%) Rangpur (52%) Mymensingh (53%)	Tangail (9.2%) Pabna (12.5%) Barisal (13.4%) Dinajpur (30%)
Highest Private Proportion	Khulna (247%) Rangpur (160%) Chittagong (152%) Sylhet (151%)	Bogra (220%) Khulna (138%) B'Baria (113%) Dinajpur (101%)	Khulna (88%) Bogra (61%) Sylhet (48%)

The most important feature of Table 5 is the comparison between private sector beds and THC beds, since many private clinic services appear to mirror most closely the services provided by THC's and, to some extent, district hospitals. Tangail ranks quite low in its proportion of total public and private beds, because it has a small proportion of private clinic beds relative to both THC beds and district hospital/medical college beds within their district. Pabna and Barisal rank low in total private beds relative to public beds due to their large number of district and medical college hospital beds. Conversely, Khulna ranks high on the proportion of private beds to both THCs and district/medical college hospital beds while Rangpur and Chittagong rank high on the proportion of private beds relative to THCs. Bogra ranks high on the proportion of private beds relative to district/medical college beds.

Dhaka Division was excluded from the comparisons of Table 4 because Dhaka City has no THCs. Having noted this fact, nevertheless, it is important that the Dhaka Division proportion of private beds to total GOB beds is 104 percent. A number that excludes the impact of THC's—the proportion of private clinic beds to district/medical college hospital beds—shows Dhaka to have 109 percent.

In sum, the following districts have a greater than 30 percent share of their total beds provided by the private sector:

- Dhaka
- Bogra
- Sylhet
- Comilla
- Chittagong
- Faridpur

A reasonable policy question associated with this service distribution is whether these six Divisions have sufficient private clinics to permit a sustained pilot of public-private "partnership" initiatives in the provision of health services. In particular:

- Does the private sector have sufficient capacity to provide in-patient services to a significant proportion of the population in these Districts?
- Are there a sufficient number of clinics for genuine competition and resulting attainment of market efficiency gains?

The possibility that a "threshold" in the share of private beds can be identified at which point private public partnerships become is worth exploring.

Policy Hypotheses and Linkages #3

Policy hypotheses	*Policy Issue Linkages*
3. When the proportion of beds provided by private medical clinics exceeds a threshold percentage of GOB Beds in a geographical area, then public-private "partnerships" become feasible with potential for technical and allocational efficiency gains.	• Health care financing issue • National coverage issue • Geographical/income access issue • Quality issue

Population and Area Distribution.

In addressing policy questions about national coverage and geographic or income access linkages, it is vital that relationships between population and medical clinics be understood. Without information in this area, equity questions concerning the poor and service access for women cannot be fully addressed.

Table 6 below indicates the population, geographic area and population density of the 18 administrative districts. The districts are grouped in to three sub-groups according to the share of private beds in their total in-patient provision. Population density is one factor affecting household purchasing power and the demand for private clinics. However, regional differences in the distribution of income, for example the higher incomes levels of Sylhetis benefiting from overseas remittances, is also important and not captured in Table 6. Two other factors are remoteness from Dhaka and Chittagong and accessibility within each district. The number of kilometres of hard roads in each district can proxy the latter factor.

Table 6: Population* and Area (sq. km) for Surveyed Administrative Districts

District	Population	Area (sq.km)	Population per sq.km.
Districts with more than 30% private beds			
Bogra	3,031,776	2,920	1,038
Chittagong	6,015,347	5,283	1,139
Comilla	4,580,306	3,085	1,485
Dhaka	6,623,585	1,464	4,524
Faridpur	1,710,160	2,073	825
Sylhet	2,445,722	3,385	723
Districts with private beds making up between 30% and 12%			
Brahamanbaria	2,432,596	1,927	1,262
Dinajpur	2,567,059	3,438	747
Jessore	2,393,128	2,567	932
Khulna	2,283,664	4,492	508
Kushtia	1,706,116	1,621	1,053
Mymensingh	4,316,220	4,112	1,050
Noakhali	2,518,223	3,601	699
Rajshahi	2,140,207	2,407	889
Rangpur	2,453,723	2,308	1,063
Districts with less than 12% private beds			
Barisal	2,507,197	2,791	898
Pabna	2,180,618	2,372	919
Tangail	3,410,161	3,414	999
Overall average	**3,073,100**		

The six surveyed Divisions with a greater than 30 percent share of their total beds provided by the private sector can be seen to be amongst the largest or most densely populated areas.

Sylhet and Faridpur stand out as having less population density. Sylhet can be explained by its higher regional per capita incomes while reasons for the high ranking of Faridpur remain unclear.

These Divisions contrast with those surveyed as having less than 15 percent of their total medical beds provided by the private sector. Population density is a factor between the Divisions with high and low shares of private beds, 1660 Pop/sq. km for "high share" areas and 939 Pop/sq. km for "low share" areas. However, this alone is an insufficient explanatory factor as other districts with similarly low population density have higher shares of private beds. For Barisal, Pabna and Tangail, geographic factors such as remoteness and inaccessibility are important factors impacting on the demand for private in-patient clinic services.

Income and Private Medical Clinic Supply

Private clinics would be expected to concentrate where effective demand was strongest. Income levels as well as population density per se are important factors in the creation of an effective demand for private medical clinics. Poorer areas, even those that are densely would provide less demand for private clinics, beds, and services than in "non-poor" or wealthy areas. In an effort to illustrate the impact on the issues involved.

1. The 18 districts of the Private Medical Clinics survey were taken as units for the analysis of "wealth effects" for clinics in Bangladesh.
2. A Wealth Index [WI] was constructed from surrogate information for each district, using data available through the Bangladesh Bureau of Statistics. Three surrogates for economic wealth per capita were adopted:

    - Value added in agriculture in the District.
    - Value added in livestock in the District.
    - Number of manufacturing enterprises.

    Three surrogates for infrastructure (capacity for wealth) per household were also adopted:

    - Number of tubewells in the District.
    - Number of primary and secondary schools in the District.

3. The wealth index was defined for only the economic variables WI(1) and an index with a third weight given to the infrastructure variables WI(2).
4. To these WI variables, a dummy variable for the presence/absence of a medical college hospital was added to test for this provider supply measure.
5. Three alternative measures for the dependent variables were chosen for a regression analysis of the impact of wealth and the presence/absence of a medical college hospital on private clinic supply:

    - Number of private clinics per million population.
    - Number of beds in private clinics per thousand population.
    - Number of beds in public and private health facilities per million population.

Table 7 summarises the regression results.

Table 7: Regression analysis Results for Wealth Index and Private Provision

Model Dependent Variable	Independent Variables	Multiple Regression Coefficient	Variance Accounted R(2)--adjusted	F-test & Significance
Number of Private Clinics per million	MCH and WI(2) and Pop. Density	.824	60.5 %	9.168 .002
Number of Private Beds per 1,000 population	MCH, WI(2), and population Density	.818	59.9%	9.464 .001
Number of Private Beds per 1,000 population	MCH, WI(1), and population Density	.812	58.7%	9.040 .001
Number of Total Beds (Pvt +GOB) per 1,000 population	Division Headquarters Town, WI (1), and population Density	.856	67.6%	12.840 .0005

The "wealth effect" as measured in WI(1) and WI(2) has a positive effect on the supply of private clinics and private beds. When considered along side other variables (population density, presence/absence of Medical College Hospitals, presence/absence of Division Headquarters for the major town in the District, then the strength of association intensifies. For total beds in a district, the strength of the prediction and its significance intensifies still further.

Relationship between Private and Public Beds

Table 8, below, summarises the population per public and private bed in the areas of the survey.

Table 8: Relationship between private and public beds.

District	Pop per private bed	Pop per THC Bed	Pop per GOB Bed
Barisal	19,898	8,675	2,354
Bogra	11,484	9,780	4,369
Brahamanbaria	18,019	12,411	5,394
Chittagong	9,128	13,860	2,784
Comilla	14,775	14,313	4,674
Dhaka#	1,559	35,611	793
Dinajpur	17,000	6,901	3,814
Faridpur	6,896	9,194	2,127
Jessore	18,130	11,028	5,103
Khulna	3,194	7,902	1,498
Kushtia	16,095	11,007	4,726
Mymensingh	12,547	13,923	3,310
Noakhali	21,162	16,247	5,939
Pabna	22,715	8,793	2,524
Rajshahi	6,505	7,671	1,636
Rangpur	7,071	11,307	1,988
Sylhet	5,823	8,766	1,883
Tangail	97,433	12,223	8,237

Note: # Dhaka has THC's only in its peri-urban area, thus distorting its THC and Total GOB figures.

The range for private beds per population in the 18 surveyed areas varies far more widely than is the case for either THC beds per population or GOB beds per population. The pattern of these numbers is itself irregular. Tangail, for example, ranks quite low on beds per capita in all 3 areas, whereas, for instance, Borisal, Dinajpur, and Pabna appear to not do well in terms of private medical clinic beds per capita but compare more favourably in terms of THC beds and overall GOB beds per capita. Reasons for this could include the presence of charitable clinics, for example Kumidini hospital in Tangail.. Other factors as mentioned above include the quality of road communications and accessibility to other large cities.

Of course, in all these comparisons, it is important to develop a sense of regional norms so that quality issues can be brought to bear on the overall accessibility of services in Bangladesh and, more particularly, the specific impact of these figures on vulnerable populations seeking inpatient medical services. Finally, it is vitally important to see that only **inpatient beds** are compared in these tables. Since the emphasis of the health sector in Bangladesh is not on inpatient care, it is vital to find other indicators of service access that link private medical services to the preventive and primary services of an Essential Services Packages as well.

As a rough measure of distribution, the strength of association between private beds and GOB beds was assessed. As might have been anticipated from the raw data—even after making allowances for the absence of THC's in Dhaka City (but not within Dhaka's administrative district)—the correlation between private bed capacity and GOB beds is strong (0.76). There is however, a negative correlation when private beds and THC beds are compared (-.09). Generally, private beds are located where there are district and medical college hospital beds in operation and not where there are THC beds—a fact that probably reflects the greater attractiveness of urban markets for the owners of private clinics.

Policy Hypotheses and Linkages #4

Policy hypotheses	*Policy Issue Linkages*
1. Population density, incomes levels and accessibility are closely linked with private bed supply. Population density is also related to district/medical college hospital bed supply but not with THC bed supply.	• Health care financing issue • National coverage issue • Geographical/income linkages issue • Quality issue
2. The private sector is more likely to supply in patient services to urban than rural populations	• Health care financing issue • National coverage issue • Geographical/income linkages issue • Clinic size issues • Quality issue

Private Clinic Service Classification

Using questionnaire information from the Private Medical Clinics Survey, the clinics in the survey were classified into three service types:

	Type	Number	Share
1.	Maternity clinics	17	6.8 %
2.	Polyclinics	222	88.0%
3.	Specialised service units	13	5.2%

By far the greatest number of private sector clinics function as polyclinics, providing a range of general clinical services including medical, surgical, and some laboratory services in

addition to maternity care. Specialised service units include such specialities as cardiology and oncology and include stand-alone laboratory units. Most locations show an overwhelming preponderance of polyclinics. The following cities only have polyclinics:

Barishal	Kushita	Mymensingh
B'Baria	Tangail	Jessore
Sylhet	Pabna	Rangpur

Those towns having the lowest concentration of polyclinics largely provide specialist services:

City	Polyclinic Share	Specialist Share
Khulna	78%	6 %
Rajshahi	68%	26%

Interestingly, these clinics appear to offer largely what amount to an accelerated version of the *Limited Curative Care* feature of the Bangladesh Essential Services Package.

Clinic Size

Regardless of their type, private clinics in Bangladesh usually have about 17 beds, with the smallest unit having 3 beds and the largest 73. A frequency distribution of clinics by bed size class is presented in Figure 2. The survey suggests a skewed distribution, with 11-20 bed size clinics being the most common, representing 50% of the sample. The number of larger clinics declines to less 20% for 21-30 bed clinics, and less than 10% for 31-40 bed clinics.

Figure 2: Distribution of Clinics by Number of Beds

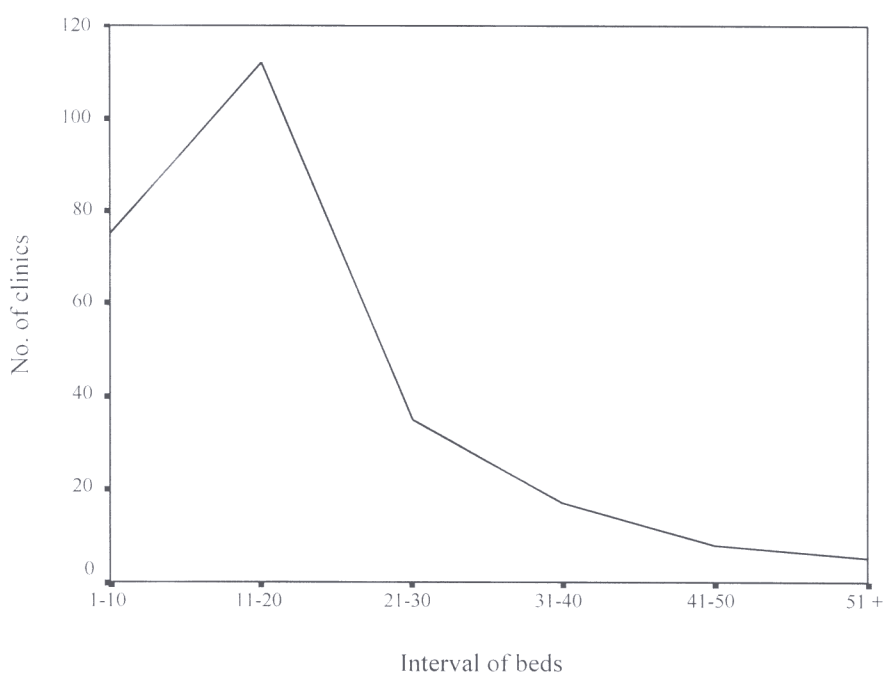


Table 9 indicates the average bed capacity by major city and town and by clinic type. Maternity and specialised clinics are smaller on average than polyclinics across Bangladesh with the exception of the large maternity clinic in Faridpur.

Table 9: Bed capacity of private clinics in major cities and towns by type of clinic

City / Town	Type of clinic			
	Maternity	Poly	Specialised	Total
Medical College Hospital				
Barisal	.	18.0	.	18.0
Bogra	12.0	15.9	.	15.5
Chittagong	10.0	25.4	14.0	23.5
Comilla	9.5	24.7	.	22.2
Dhaka	7.5	25.8	14.4	23.7
Dinajpur	10.0	15.9	.	15.1
Faridpur	57.0	20.3	.	27.6
Khulna	11.8	16.0	13.5	15.2
Mymensingh	.	12.3	.	12.3
Rajshahi	7.0	14.8	10.0	13.2
Rangpur	.	14.5	.	14.5
Sylhet	10.0	24.3	.	23.3
No Medical College Hospital				
B Baria	.	12.3	.	12.3
Jessore	.	12.0	.	12.0
Kushtia	.	13.2	.	13.2
Tangail	.	8.7	.	8.7
Noakhali	10.0	18.8	.	17.0
Pabna	.	16.0	.	16.0
Overall	**12.9**	**18.5**	**12.5**	**17.8**

Policy Hypotheses and Linkages #5

Policy hypotheses	*Policy Issue Linkages*
1. If THC's and private polyclinics both provide *limited curative care,* then regulated polyclinics might be reasonable targets for contracting *urban* ESP *limited curative care* services.	• National Coverage Issue • Health care financing Issue • Sunk Costs and Investments • Clinic scale issues
2. If the aim of HPSP is to target essential services—particularly those for women and children—then private maternity clinic services should be linked with HPSP objectives.	• National Coverage Issue • Quality Issue • Health care financing Issue

Utilisation of Private Clinics

Resources available for the HEU survey did not allow a detailed records review of in-patient admissions at the 252 private clinics covered in the 18 major district towns of Bangladesh. Instead, an estimate of patients served during the survey year and based on owner recall was derived for each clinic. Using the data found in registers at each of the 252 clinics, this yielded an estimate of 184,000 patients for these clinics in the calendar year that preceded the survey. If each clinic had 240 operating days in the calendar year, then the average in-patient load would be approximately 3 inpatients per day of service.

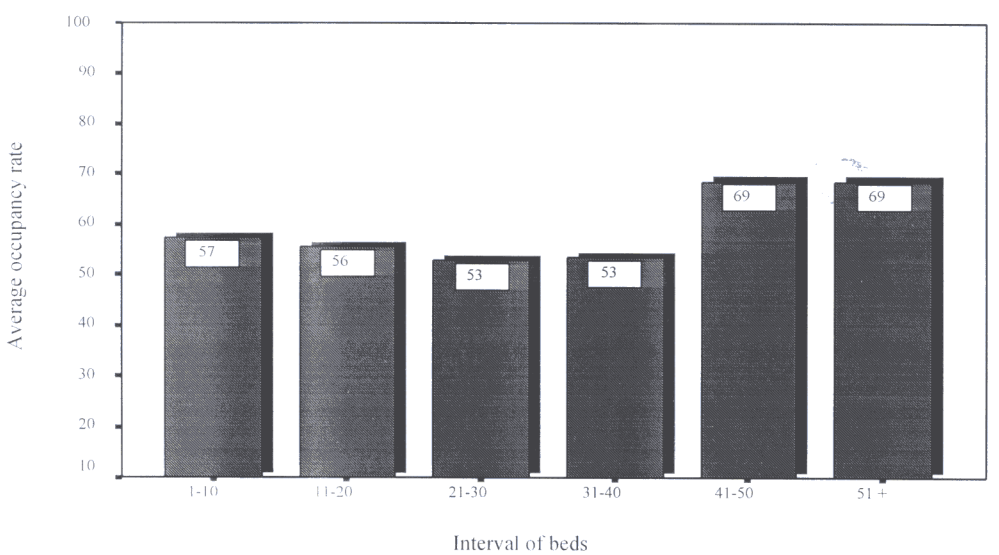
Occupancy

The average occupancy rate in private clinics, computed from clinic registers, is 56.2 percent, with the minimum level reported at 12.5 percent and maximum level claimed to be 97.5 percent. In terms of location, clinics in Dinajpur enjoyed the highest average occupancy rate, 75 percent, while the poorest performance was in Noakhali, 43.5 percent, with Dhaka recording an average occupancy rate of 55.7 percent. There appears to be no discernible difference in occupancy rate by type of clinic across Bangladesh. However, as Figure 3 shows there is a marked variation in occupancy rate by size of clinic. The average occupancy rate is in the 53 percent to 57 percent range for clinics with 40 or less beds, but is 68.5 percent for those with 41 or more beds

The average length of stay by an in-patient in a private clinic is estimated to be 5 days. The length of stay (LOS) appears relatively uniform across Bangladesh and type of clinic, although specialised clinics is slightly higher at 5.7 days. The comparable figure for patients in a public-owned government hospital -- Mymensingh Medical College Hospital -- is 7.2 days.

Three factors could influence the lower average length of stay observed in private rather than public clinics:

Figure 3: Average occupancy rate by size of clinic.



- patient income constraints may limit the number of days they can spend in more expensive private clinics for pre and post operative care;
- if the revenue from clinical procedures is more important than the bed day charge then there is an incentive to minimise length of stay to help maximise the number of patients and thereby revenue; and/or
- the case mix at Mymensingh MCH could be more complex than witnessed in private clinics and thereby requires longer LOS

Of considerable interest, as well, is the proportional division of in-patients between different medical, surgical, gynae, and cardiac care. Leaving aside cardiac in view of its being entirely Dhaka based, the proportions developed were as follows:

Table 10: Proportions among Medical, Surgical, and Gynae patients estimated for 252 Surveyed Private Clinics in Bangladesh

	Medical	Surgical	Gynae
Barisal	0.30	0.59	0.11
Bogra	0.32	0.46	0.22
Brahamanbaria	0.28	0.46	0.27
Chittagong	0.59	0.32	0.09
Comilla	0.39	0.38	0.23
Dhaka	0.41	0.43	0.15
Dinajpur	0.56	0.34	0.10
Faridpur	0.55	0.27	0.18
Jessore	0.29	0.57	0.14
Khulna	0.41	0.45	0.14
Kushtia	0.19	0.77	0.04
Mymensingh	0.26	0.60	0.14
Noakhali	0.52	0.42	0.06
Pabna	0.13	0.68	0.19
Rajshahi	0.13	0.74	0.13
Rangpur	0.22	0.65	0.13
Sylhet	0.51	0.34	0.14
Tangail	0.49	0.35	0.15
Average Proportions	0.36	0.49	0.15

Districts "well above" the average estimate for patients in the 3 categories were:

Surgical Interventions	Chittagong; Dinajpur; Faridpur; Noakhali; Sylhet
Medical Interventions	Barisal; Jessore; Kushita; Mymensingh; Pabna; Rajshahi; Rangpur
Gynae Interventions	Brahmanbaria

Districts "well below" the average estimate for patients in the 3 categories were:

Surgical Interventions	Kushita; Pabna; Rajshahi
Medical Interventions	Chittagong; Dinajpur; Faridpur; Sylhet; Tangail
Gynae Interventions	Barisal; Dinajpur; Kushita; Noakhali

Patterns in these data are not readily apparent. What does appear in the table is a tendency for clinics in an area to rank "high" on some interventions (e.g., Surgery) and "low" in another (e.g., Medicine). The existence of specialisation is likely to be explained by the speciality interest of the leading staff consultants associated with each clinic.

Policy Hypotheses and Linkages #5

Policy hypotheses	*Policy Issue Linkages*
1. Private clinics show lower lengths of stay and higher occupancy rates than public clinics of comparable size—as a result they show a greater degree of resource efficiency than comparable public clinics.	• Health Care Financing Issue
2. Service mix in private clinics may depend more upon the interests of consultant-owners than upon the frequency of occurrence of health problems in the vicinity of the clinic.	• . National Coverage Issue Quality Issue Health care financing Issue
3. EOC services, as a feature of attempts to reduce maternal mortality, may only be appropriate to private clinics rating "high" on surgical and gynae interventions, not medical interventions.	• Quality Issue • Health Care Financing Issue

Staffing Levels

The 1982 Ordinance specify that private clinics require a round the clock presence of one registered medical practitioner, two nurses and one sweeper per 10 beds. As mentioned earlier, discussions with clinic owners revealed widespread ignorance about this requirement.

In calculating patient served to medical staff ratios, full time employees (both male and female) were considered. Patient-to-consultant and physician, patient-to-nurse and patient-to-other staff ratios were calculated on the basis of employee information collected from the clinics by the survey team. Other staff for whom information was developed included ayas, ward-boys, administrative & accounts staff and other supportive staff. Both registered and non-registered nurses have also been considered.

In many instances, clinics neither have a full time consultant nor a full time resident doctor. These clinics primarily rely on part-time resident physicians and bring in consultants on a need basis. Hence, the ratio of patient to consultant and physician in the surveyed cities and towns is very high. These ratios are shown below in Table 11.

Table 11: Personnel Ratios for Patients Served for Surveyed Private Clinics in 18 District Towns

	Maternity Clinics		Polyclinics		Specialist Clinics	
	Patients per consultant/ physician	Patients per nurse	Patients per consultant/ physician	Patients per nurse	Patients per consultant/ physician	Patients per nurse
Barisal			231	116		
Bogra	745	124	298	126		
B'baria			134	145		
Chittagong	139	61	121	81	33	18
Comilla	139	86	224	139		
Dhaka	70	114	158	93	51	32
Dinajpur	163	122	347	207		
Faridpur	884	316	360	124		
Jessore			320	120		
Khulna	124	72	203	104	262	151
Kushtia			402	105		
Mymensingh			227	129		
Noakhali	180	60	211	114		
Pabna			476	232		
Rajshahi	135	58	189	112	254	145
Rangpur			288	204		
Sylhet	73	41	162	110		
Tangail			289	95		
Averages	265	105	258	131	150	87

The average patient-per-consultant and physician ratio varies according to clinic type, with the highest for Maternity clinics (265), then Polyclinics (258), and lowest for Specialist clinics (150). Although Specialist clinics have the best ratios, the ratios for Dhaka and Chittagong are considerably lower than for Khulna and Rajshahi. In Sylhet, the ratios at Maternity clinics are comparable to those for speciality clinics in Dhaka and Chittagong. Comparing staff ratios within categories show that the "highest" (greatest number of patients per staff member) of patient-per-consultant and physician for each clinic type were as follows:

	Maternity Clinic	*Polyclinic*	*Specialist*
"Highest" Ratio	Faridpur Bogra	Pabna	Khulna
"Lowest" Ratio	Dhaka Sylhet	Chittagong	Chittagong Dhaka

The districts with the highest ratio of patients to staff coincide with those with the fewest private sector beds that were earlier identified as being less densely populated, more remote and with lower incomes.

Table 12 presents the estimated Nurse-Doctor ratio by type of clinic and district. Unsurprisingly, given the earlier observation that clinic owners were unaware of staffing regulations, it shows a range of ratios. The highest ratio of six nurses for one doctor in maternity clinics is in Bogra, while the lowest is 1.6 doctors for each nurse in maternity clinics in Dhaka. While none of the districts reflect the 1982 Ordinance staff ratios, approximately a third have between two and three nurses for each doctor. Some of the districts with the highest nurse doctor ratios correspond to those that have fewer private beds and were assessed to be poorer and more remote.

Table 12: Nurse Doctor ratios by type of clinic and district

Districts	Maternity	Polyclinics	Special
Barisal	-	1.99	-
Bogra	6.01	2.37	-
B'baria	-	0.92	-
Chittagong	2.28	1.49	1.83
Comilla	1.62	1.61	-
Dhaka	0.61	1.70	1.59
Dinajpur	1.34	1.68	-
Faridpur	2.80	2.90	-
Jessore	-	2.67	-
Khulna	1.72	1.95	1.74
Kushtia	-	3.83	-
Mymensingh	-	1.76	-
Noakhali	3.00	1.85	-
Pabna	-	2.05	-
Rajshahi	2.33	1.69	1.75
Rangpur	-	1.41	-
Sylhet	1.78	1.47	-
Tangail	-	3.04	-
Averages	**2.52**	**1.97**	**1.72**

While staff ratios are not a surrogate for quality and by no means indicate that care is of a higher quality in one place than in another, they do show that private staff ratios vary considerably between different areas in Bangladesh.

Policy Hypotheses and Linkages #6

Policy hypotheses	*Policy Issue Linkages*
Specialist clinics with acceptable patient-to-staff ratios will not be available in areas without sufficient wealth and population to provide effective demand	• Quality issue • Health care financing issue • National coverage issue

Part IV: Private Medical Clinic Profitability and Market Characteristics

Private Clinics as Competitive Firms in Bangladesh?

One of the motivations for promoting private sector development and public-private "partnerships" is the incentive the profit motive creates for efficient production of goods and services. Profit maximising firms use inputs efficiently, innovate and use technology to reduce costs and improve quality and respond to consumer demands. For this production efficiency to be translated to lower prices requires the existence of competitive market conditions.

Competitive market conditions are characterised by the existence of numerous producers of a homogeneous product facing low entry and exit barriers and symmetry of information between producers and consumers. Producers are price takers in that they are unable to influence market prices by varying the amount of their production. The market for health care is not always typified by these characteristics. While we expect health care providers to be profit maximisers a number of factors reduce competition in the market for health care services[8]:

- The size of investment in hospitals tends to restrict new entrants, this is particularly the case where the population is immobile or transport costs are high, reducing the size of the effective consumer population.
- Restrictions on new entrants exist in the form of professional standards and licensing requirements.
- Acute health care services are not easily tradable because the cost of travel and the adverse impact of delay on a condition tend to limit the scope for consumers to travel between health facilities in different locations thereby creating localised markets.
- Health services are non-homogenous, varying in the type and quality of services provided. Consumers consequently need to compare not just price but the quality and range of services offered.
- Because higher income groups tend to have low price elasticities of demand private providers can seek to be competitive through raising quality rather than reducing price.
- Imperfect and asymmetric information exists between trained practitioners and consumers.
- Imperfect information problems are compounded when the practitioner makes both the consumption and production decision, this is described as supplier induced demand.

All of these factors contribute to a situation where private health providers operate in non-competitive market conditions. Such markets tend to exhibit oligopolistic behaviour, with producers seeking to differentiate their products as a means of maintaining high prices and gaining higher profits. Product differentiation often tends to take place through increasing the quality and frequently the price of "hotel services" rather than in the quality of health care per se being improved. Any efficiency gains achieved through the operation of the profit motive are kept as "super profits" by producers and not transferred to consumers in lower prices.

A priori we would expect the above factors would create uncompetitive market conditions for the supply of private clinic services. However, despite the many market distortions listed

[8] Sara Bennett, "Health care markets: defining characteristics" in Private Health Providers in Developing Countries edited by Bennett, McPake and Mills, Zed Books Ltd., 1997.

above it is conceivable that the lack of any real regulatory barriers to entry make the establishment of new clinics relatively easy. As new clinics enter the market, competition would increase, although this is likely to be seen in the form of quality differentiated health services rather than through lower prices.

A number of key aspects of market behaviour can be examined to determine whether private clinics are operating in a perfectly or imperfectly competitive manner:

- Has the number of new clinics continued to increase, suggesting super profits are still being made or has there been some tailing off in the number of new clinics as competition has increased and profits fallen?
- Given the localised nature of demand for clinic services are there sufficient clinics to generate meaningful competition?
- Are private firms providing uniform clinical services across the country or is there a concentration on the most profitable market segments in terms of location and type of service?
- Have prices increased in line with or faster than inflation? Is there any evidence of price competition or is competition conducted through the quality of "hotel services" and other inputs;
- Are producers operating at the level of lowest average cost that would indicate competitive market behaviour and production efficiency or are they operating above the level of minimum average cost because of the lack of competitive pressure?
- Are private clinics making "normal profit" levels that are comparable with those levels elsewhere in the economy or do they suggest the existence of "supra profits" generated from an imperfect market structure?

We review evidence from the survey of private clinics to try to address these questions to help determine whether or not perfect market competition and the potential for production efficiency gains exists.

Growth in Clinics

The growth in private clinics will be determined simultaneously by a number of factors:

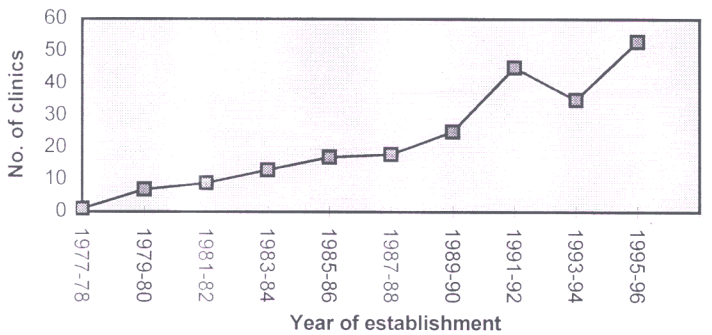
- The growth in demand for private in-patient services, which it self will be a function of incomes levels, private clinic prices and quality and the availability, quality and cost of public services;
- The limiting effect of registration and other entry barriers; and
- Expected profit levels and rates of return on investment, which are a function of prices, demand levels, competition and costs including taxation.

As stated earlier, there is generally a low price elasticity for health services for households with higher incomes levels. International experience also suggests that expenditure on health care services increases faster than the rate of economic growth.

Figure 4 illustrates the annual increase in the number of private clinics over the last 20 years. The graph suggests a steady long term of growth from 1977/78 to 1989/90 but then an

accelerated growth pattern, above this trend in the 1990s. For example, of the 252 units surveyed, 158 came into existence after 1988 with 53 established in 1995-96 alone.

Figure 4: Growth of private clinics, 1977-96



While Bangladesh has experienced increased economic growth in the last eight years, this alone is unlikely to have stimulated the jump in the rate of increase in clinics. Less stringent application of the 1982 Ordinance may be a factor but again is unlikely to explain all of the change. The scope for higher profits than experienced elsewhere in the economy is likely to have played a role since 1990. However, there is another factor to be considered.

The clinics that were established in the 1980s and are still in existence are by definition robust, with a longer track record of profit. It is possible that the observed increase in new clinics will be offset by an unknown number of clinic closures. A clearer picture would be possible if the DGHS were able to keep a more up to date and comprehensive register of clinics.

Number of Clinics and Uniformity of Supply

Of the 18 cities and towns covered by the survey, the top six, in terms of population, have an average of 45 clinics. However as Table 13 shows, this average is influenced by the 177 clinics in Dhaka. Excluding Dhaka the top five have an average of 18 clinics each. Excluding Tangail, which only has 4 clinics, the average is 22.

The mid-size towns have an average of 15 clinics, while the smaller towns have 3 clinics. There is considerable variation with Khulna (47), Rajshahi (25) and Rangpur (24) having considerably higher than average. Government hospitals are the major substitutes (competitors) for higher income households. The smaller towns typically have a single government hospital, while the larger towns may have multiple government health facilities. The distribution of charitable and NGO hospitals tend to be related less to urban centres.

Table 13: Number of clinics in larger and smaller district towns		
District	**Population (in million)**	**No. of clinics**
Larger :		
Dhaka	6.16	177
Chittagong	5.74	28
Comilla	4.26	14
Mymensingh	4.10	28
Tangail	3.11	4
Bogra	2.80	17
Total		**268**
Average		45
Mid-Sized:		
Dinajpur	2.37	10
Noakhali	2.35	7
Barisal	2.30	7
Sylhet	2.28	18
Rangpur	2.27	24
B Baria	2.27	11
Jessore	2.19	11
Khulna	2.13	47
Pabna	2.02	6
Rajshahi	1.99	25
Khushtia	1.56	8
Faridpur	1.56	9
Total		**183**
Average		15

In terms of the distribution of services offered the polyclinic model is the most common. These tend to provide a limited range of elective surgery, maternity care and some specialisations such as oncology and cardiology depending on the availability and reputation on medical specialists. There was little or no evidence of long term care or the provision of more expensive and complicated surgical procedures

Price or Quality Competition

M.Mahmud Khan 1996[7] documented an increase in prices for private clinical services well above the rate of inflation. He suggested this not only demonstrated the lack of regulation but also the existence of super-profits and a non-competitive market behaviour associated with localised oligopolies.

While prices were obtained during the survey of different in-patient services, there is no concrete time series on prices to support or refute MM Kahn's observations. Evidence of oligopolistic behaviour does come from discussions with clinic owners. They confirmed the tendency for competition with other clinics to take place through improvements in quality of care rather than reductions in prices for in-patient treatment.

Casual evidence of the cost of out-patient visits to general practitioners, which is in theory regulated, supports the suggestion of price increases well beyond the rate of inflation.

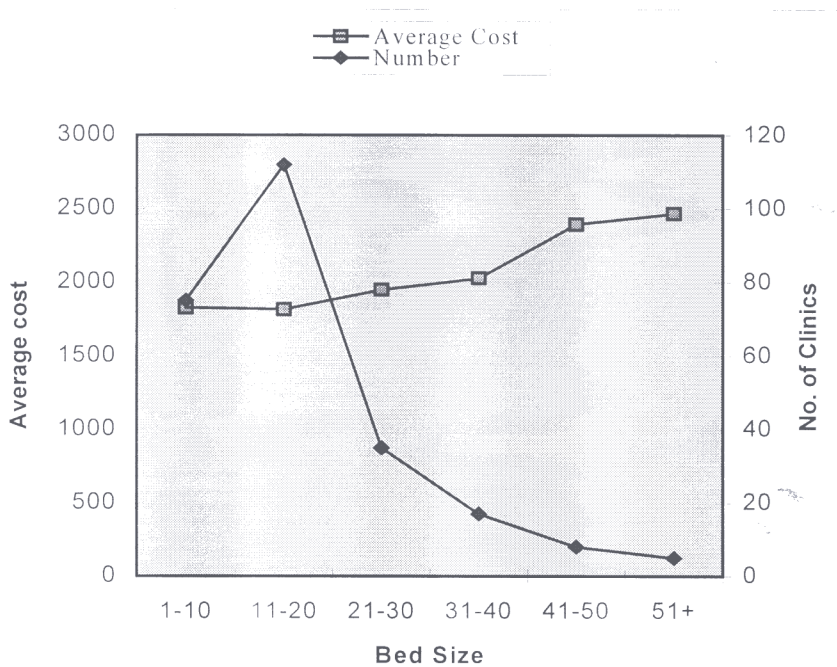
M. Mahmud Khan, Development of Private Health Care Facilities in Dhaka City: Impacts on Costs Access and Quality, 1996

Consultation fees of TK 500 and 1000 have been quoted in the press, which far exceed the TK 40 set out in the 1982 Ordinance.

Minimising Average Costs

Information was collected on the cost structure of the clinics surveyed. In Figure 5 we present the average cost estimated for each size of clinic and compare this again with the distribution of clinics. It shows that clinics with between 11 and 20 beds have both the lowest average costs and are the most numerous and that clinics with between 1 and 10 beds are the next most numerous type of clinic and have the second lowest average cost.

Figure 5: Average Costs and Number of Clinics by Clinic Size



This information suggests that most clinic owners do operate as cost minimisers and profit maximisers. It also suggests that smaller clinics are the optimal size to establish given market demand and management capacity.

Normal or Super Profit levels?

Clinic owners were unwilling to report revenue and profit levels directly during the survey. Estimate for both were derived through the information available on variable costs and patient numbers. A lack of information on fixed costs meant that profit per se could not be estimated. Rather a "return to capital", a composite of profit, interest and bank charges and depreciation, was derived as follows:

$$RTC = TR - VC$$

Where:

RTC	=	return to capital
TR	=	total revenue
VC	=	variable costs

The average return on capital, expressed as a function of total variable cost, for the entire survey was 37.8%. Rates of return to capital varied considerably as summarised below:

The return on capital was highest:	The return on capital was lowest for:
• Registered clinics - 42%	• Non-registered clinics – 26%
• Polyclinics – 39%	• Maternity clinics – 21%
• Doctor owned – 38%	• Non-Doctor owned – 36%
• Clinics classified under quality group B, 40%	• Clinics classified under quality group D, 25%
• Clinics in Dhaka, Dinajpur and Pabna – 50%	• Clinics in Chittagong 18%, Noakhali 22% and Sylhet 25%

A comparison of the return to capital by size of clinic is less meaningful because the larger the clinic the larger the fixed costs and the larger the return to capital would need to be as a function of variable costs.

The average return to capital of 37.8% from private clinics needs to be compared to that possible in other sectors. For simplicity this could be taken as the sum of:

• The opportunity cost of capital – derived from the rate of interest from bank savings or treasury bills adjusted for a risk factor	10%
• An average depreciation rate;	7%
• The interest rate paid on medium commercial loans from banks	16%

On the basis of these assumptions the average return to capital for private clinics is marginally greater than the return to capital possible in other sectors. However, given the difficulties encountered in deriving the return to capital this difference is large enough to strongly suggestive the existence of super profits from an imperfect market.

The survey of private medical clinics provides mixed evidence on the market behaviour of providers. Localised competition exists in some towns and districts with higher income levels or population densities or better accessibility. This competition does contribute to lead clinics to operate at a level where average costs are lowest. The qualitative evidence suggests competition is manifested in product differentiation through improvements in quality rather than price reductions. Indirect estimates suggest a return to capital that is comparable with and marginally higher than that achieved in other sectors. This may explain the recent increase in the entry of new clinics, although further information on the number of clinics closing is required to confirm the real growth level.

Market competition is less marked in towns with smaller effective demand. Further analysis is required to determine whether clinics in these towns have higher average costs or whether lower income levels do cap what clinics can charge.

Policy Hypotheses and Linkages #7

Policy hypotheses	*Policy Issue Linkages*
1. Competition is stronger in some locations in Bangladesh than others, providing some potential for efficiency gains from private public partnerships.	• Quality issue • Health care financing issue • National coverage issue • Access issues
2. Private clinics do exhibit some aspects of competitive behaviour but careful pilot testing of public private partnerships is required to ensure consumers capture efficiency gains.	• Health financing issue • National coverage issues • Access issues
3. Private operators seem to operate more efficiently at smaller clinic sizes.	• Scale issue • Quality issue

Conclusion

The findings from the report can be summarised as follows:

- *Distortion in National Policy*. The private health care sector, like other sectors of the economy, suffers from policy distortions that discourage firms to grow in size. Policy distortions also focus attention on inputs and not the quality of care per se. This has detrimental implications on improving the financing of the health care in the private sector and the size of their operation and as a result the national coverage. Moreover, the existing policy not only fails to encounter deficiency in quality of care in the private sector but also encourage rent seeking behaviour in the public sector.

- *Location and Ownership of Private Sector Health Facilities*. Private medical clinics appear where there are significant masses of medical college professors to own and operate them, indicating that it is an important issue that determines their coverage nationally. The survey shows that the proportion of the private medical clinics owned and operated by active medical college professors exceeds those owned and operated by retired professors. This indicates that the active professors are either in better financial position or more inclined to finance private clinics since they are guaranteed of clients and thus a safe 'returns' on their investments. The staff at private medical clinics consists of owners and directors from among medical college professors with residents acting as junior staff to provide diagnosis and interventions. This poses the question of the ability of the staff in allocating their time both at the public and private facilities and the maintenance of double standard in quality of care at these workplaces.

- *Public-Private Partnership*. When the proportion of beds provided by private medical clinics exceeds a threshold percentage of GOB Beds in a geographical area, then public-private "partnerships" become feasible with potential for technical and allocational efficiency gains. This indicates that for such potential partnerships health care financing, geographical and income access issues has to be taken into consideration for a broader coverage and better quality of the health sector in Bangladesh.

- *Determinants of Private Sector Supply of Beds*. Population density, income levels and accessibility are closely linked with private bed supply implying policy implications for national coverage and health care financing to depend on income and geographical linkage issues. Moreover, the fact that private sector is more likely to supply inpatient services to urban than rural populations calls for taking into cognisance income and geographical issues that can be reflected in national strategy for national coverage and financing of a private-public mix in health care delivery system in Bangladesh.

- *Potential for Delivery of ESP through Private Sector*. There is a scope for contracting urban ESP *limited curative care* services through regulated polyclinics if the issue of scales of the clinics is taken into consideration. Moreover, the private maternity clinic services should be linked with HPSP objectives to target essential services particularly for women and children to enhance coverage and quality and ensure financing.

- Private clinics show lower lengths of stay and higher occupancy rates than public clinics of comparable size showing a greater degree of resource efficiency than comparable public clinics. This suggests that there is a scope for efficiency gain by providing autonomy or contracting out the facility with appropriate cost recovery schemes and service mix. However, service mix in private clinics may depend more upon the interests of consultant-owners than upon the frequency of occurrence of health problems in the

vicinity of the clinic. This shows a lack of sensitivity to local needs on the part of the private sector which can be addressed should a public-private mix strategy is adopted. On the other hand, EOC services, as a feature of attempts to reduce maternal mortality, may only be appropriate to private clinics rating "high" on surgical and gynae interventions, not medical interventions in order to ensure quality.

- *Variations in patient- staff ratio.* Specialist clinics with acceptable patient-to-staff ratios will not be available in areas without sufficient wealth and population to provide effective demand. This has a repercussion on quality of services at less developed and remote areas heavily undermining broader coverage of specialist services.

- *Private Clinic Profitability and Market Structure.* There is some potential for efficiency gains from private public partnerships in some locations in Bangladesh where competition is stronger Although private clinics exhibit some aspects of competitive behaviour, careful pilot testing of public private partnerships is required to ensure that consumers capture efficiency gains. Again, private operators seem to operate more efficiently at smaller clinic sizes, which calls for taking into consideration the issue of scales while anticipating efficiency gains.

- The possibility of the public sector moving out from services where the private sector has gained enough strength still seems remote due to existence of an effective health care financing system (private and social insurance, etc.) to ensure coverage of the most disadvantaged and lack of regulations and its applications to monitor quality.

RECOMMENDATIONS

This paper has highlighted a number of issues that need to be considered in the implementation of HPSP. Scope clearly exists for the development of public-private sector partnerships in the delivery of an ESP. Private sector clinics are already providing some income groups with access to limited curative care on an in-patient basis. Limited contracting of private clinics to provide components of the ESP to specific population groups would be possible. There are, however, a number of factors that require a careful approach be adopted.

Private clinics exhibit a wide range in the quality, type and cost of care provided. Clear market imperfections exist, together with localised oligopolies. The extent of market competition varies considerably across Bangladesh. There is a clear tendency for clinics to focus on the quality of inputs rather than the quality of health outcomes. Private clinics remain accessible to only the richer sections of society.

While evidence of market failure exists, in the sense of imperfect competition, there is also evidence of Government failure, through weak and distortionary regulation. Existing attempts to regulate and license private clinics are at best inconsistent and at worse encourage inappropriate attention to health care inputs rather than outcomes. There is a fundamental need to overhaul attitudes to the quality of care. Greater attention to the quality of health outcomes and quality of health care services could require a change in practitioner attitudes as much as a change in the attitudes of regulators.

The survey of private clinics provides an important first step to helping policy makers understand how the private sector operates in providing in-patient clinic services. More information is required before economy-wide policy recommendations can proceed. This is particularly important, keeping in mind the wide spectrum of private sector facility centres and services that not only include the private clinics but also the NGOs, Out Patient Clinics, the Laboratories, and the Pharmacies. There is also the need for defining the 'partnership' that exists between the private and the public sector and also within the private sector. There is a need to explore the nature of partnerships that may differ by facility and by service and the conditions that are required for it to be feasible. As an interim measure, the data collected can help identify pilot areas where sufficient numbers of private clinics exist to permit genuine competition. Different approaches can then be tested to determine how, and to what extent, private-public partnerships can help Bangladesh meet its health financing resource gap through greater efficiency and more effective mobilisation of private expenditure.

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