Chapter - 8

Range of services in private and public health care institutions.

We have examined accessibility, efficiency, and quality of service character of private forprofit, nonprofit and public HCIs. Another feature with implications for policy is differences in specialisation if any. It is often observed that private forprofit HCIs have a tendency to offer certain services and shy away from others. This phenomenon has a positive and a negative side to it. Suppose there are health care services where the private forprofit HCIs have a comparative advantage. It will then be a good policy to facilitate development and sustenance of private capacity for those services. This is the positive side. A criticism of forprofit health care institutions (HCIs) is that they have the incentive to cream skim best paying patients by focusing on most profitable services. There are two basic types of cream skimming, namely (a) restricting the range of available services, and (b) discouraging admission or retention of complicated cases (Steinwald and Neuhauser, 1970). Evidence about discouraging of admission as a cream skimming strategy was discussed in chapter-4. Here we deal with the restricted service availability strategy. If a service is not available, then people cannot accuse the HCI of discrimination when a patient needing that service is turned away. Suppose there is some correlation between certain services and paying capacity of patients. Then, the HCI can effectively deny access to poor patients by deciding not to make available services usually required by poorer people and by focusing on the ones demanded by those who can afford. Certain preventive and promotive services may not be good revenue generators. On the other hand, such preventive services may increase the credibility and reputation of a forprofit HCI and thereby enable it to attract more well paying patients. Hence, it is difficult to predict on theoretical grounds, which of these motivations, cream skimming or reputation building prevails over the owner-managers of forprofit HCIs. The incidence of cream-skimming may vary from time to time depending on various environmental factors. There are two implications of the potential for cream-skimming. Firstly, if the cream-skimming behaviour is likely to affect safety and health of patients being treated by forprofit HCIs, then regulatory mechanisms may mandate provision of those complementary services through service standards and accreditation mechanisms. Secondly, public policy should rely on the public and private nonprofit HCIs for provision of services that are essential but not favoured by the private HCIs.

In this chapter, we first review existing literature to understand the nature of services usually provided by the private sector and medical interventions where private HCIs may have a comparative advantage. We then present findings from the present study about range of clinical services provided by private and public HCIs in AP. We then examine data on the range of public health related services, participation in national disease control and family welfare programmes by private and public HCIs. Next, we present our findings about the health care diagnostic services market in AP. This is followed by some information on availability of auxiliary services in private and public HCIs. Finally, we summarise the evidence about range of services in private and public HCIs.

I. Nature of services provided by the private sector and medical interventions where private institutions have an advantage

Many arguments exist to suggest differences in the nature of services provided by forprofit and other HCIs. For example, Poullier (1986) observed that across the range of industrialised countries, forprofit hospitals are more likely to provide surgery and maternity care. Nonprofit and public HCIs tend to cater for all needs of the community. Forprofit HCIs tend to cater to more defined demands. Ambulatory care is very readily provided by the private forprofit sector. Most of these are proprietary physician practice facilities. Ambulatory care is one area where the proprietary physician practice facilities appear to have a distinct comparative advantage. Poullier (1986 Table-2.5) examined the dominant form of delivery of ambulatory care in 20 industrialised countries. In 14 out of the 20 countries, self employed physician practices or group practices were the dominant form of ambulatory care provision. Household survey data on health seeking behaviour in India (Table-5.1) also confirms the distinctly higher preference for private HCIs for ambulatory care. Some of the factors giving a comparative advantage to private proprietary HCIs for ambulatory care are obvious. Since these are usually small in size ranging from solo clinics to small hospitals, they have the required locational flexibility to a site nearer to their clientele. Distance is an important consideration for accessing of services from health care facilities and more so for ambulatory care. Another clear advantage of proprietary HCIs is their flexible timing, which again is an important consideration for accessing ambulatory medical care. Thus, it would appear that private forprofit HCIs have a distinct comparative advantage for delivering ambulatory medical care.

An earlier study in Andhra Pradesh (Mahapatra, 1998) found obstetrics to be one of the main services offered by the private HCIs. Many (47.35%) of the HCIs offer "all services" which include medical, surgical, obstetric and "other"

services. After this comes the combination of medical, surgical and obstetrics (18.31%), medical (9.67%), and then medical and surgery (6.47%). Emergency and casualty services are not so well developed in the private sector. There appears to be some reluctance among many private hospitals and nursing homes to refer accident cases to the nearest public hospitals.

The question of medical intervention, where private HCIs may have an advantage was discussed in a workshop on private health sector in Andhra Pradesh (Mahapatra and Nagarjuna, 1998) attended by medical and health professionals from private and public sector institutions. The consensus was that "for hospitals of comparable size and specialty composition", ownership does not as such give any advantage or disadvantage in dealing with various medical conditions. Hospitals in both the public and private sector can handle almost all types of conditions. However, preferences for private or public hospitals do exist on other accounts, namely (a) paying capacity of the patient, (b) distance to be travelled to reach the hospital, (c) size of the hospital, etc. Factors like size of hospitals, medicolegal implications, etc. do translate, at the macro level, into certain broad patterns of distinction between the public and private sectors. Most private hospitals and nursing homes are small in size. This usually restricts the range of services offered by them to reproductive services, abdominal surgery, general medical and paediatric cases. Small size implies that each hospital or nursing home is staffed by a few doctors. Usually there is one doctor focusing on a particular type of service and supplemented by part time consultants for other specialties. Private hospitals and nursing homes, for various reasons, are usually not geared up to handle medicolegal cases. Since most accidents would have some medicolegal implication, ability of private hospitals to handle emergencies is compromised. In case of smaller private hospitals, other factors like lack of equipment, etc. may also contribute.

II. Findings from the present study about range of clinical services provided by private and public HCIs in Andhra Pradesh

In the short run, range of services available in the private sector would reflect the range of professional skills that doctors have to offer subject to adequacy of demand by the consumers for these facilities to survive in the market. In the long run, trends in consumer demand would influence doctors decision to specialise in high demand areas. Thus the range of services available in a cross section of private health care institutions would be a result of these two factors, namely the range of skills that doctors have to offer and demand for various services. On the other hand, we would expect the public sector to offer a smaller but more consistent range, if they were implementing something like

an essential clinical package (World Bank 1993 p112-118). In other words available services would give us some idea about the demand for services in the private sector and the existence and implementation of some sort of essential or basic clinical package of services.

But the data from this survey shown in Table-8.1 does not support the above expectation. Keeping aside Reproductivity Child Health (RCH) and public health program related services summarised subsequently (Table-8.3), the range of clinical service available in public sector health care institutions is not very different from that of in the private sector. It appears that in the matter of general clinical services, both private and public sectors operate alike. Availability of clinical services in public sector appears to be determined by what doctors working in public sector have to offer. Frankly, we are not surprised by this finding. It is well known that the public sector does not have a specific plan of clinical services to be offered at various levels. The APVVP which manages middle level hospitals has adopted standards that define the range of services to be provided by different hospitals. Such explicit standards do not exist for the PHCs. The big hospitals, mostly in the tertiary sector are expected to provide specialty care, but these are not explicitly defined. Even though some efforts have been made to explicitly define the range of clinical services, for example standards set by the APVVP, the actual range of services continues to be determined by the range of skills offered by the doctors in public sector. This is mainly because the personnel policy does not yet adequately define the cadre strength of doctors by specialty. There is no segmentation by specialty of doctors cadre at the junior level (civil assistant surgeon and deputy civil surgeon). Thus the skill acquired by the doctor in view of his / her own career plans ultimately determines what kind of clinical services are available in public sector health care institutions, mostly at the PHCs and the middle hospitals, where junior level positions dominate the medical cadres. This, we think is the explanation for availability of Neurology and Cardiology services at some of the PHCs! However, private clinics clearly lag far behind the public sector PHCs in availability of OBG services. About 42% of PHCs reported to offer OBG services. Only 8% of private clinics reported to offer OBG services. The private clinic sample includes nursing homes of less than 10 beds, many of which provide OBG services. But 75% of the private clinics were solo clinics and only 25% were nursing homes. This may have resulted in lower percentage of OBG services availability. Overall 46% of public HCIs reported to have OBG services compared to 43% in the private sector. Paediatric service was a little more likely to be available in public HCIs (50%) compared to private HCIs (45%). General surgical services are more likely to be available in private sector (52%) compared to public HCIs (34%). Other services more likely to be available in private sector HCIs are; (a) orthopaedics, (b) Urology, (c) Neurology, (d) Physiotherapy, (e) Psychiatry and (f) Oncology. Services more likely to be available in the public

sector HCIs are; (a) Paediatrics, (b) Burns, (c) ENT, (d) Dental etc. Almost similar portion of around 20% HCIs in private and 23% HCIs in public sector reported to provide cardiology services. This is a contrast to general belief among the health care professionals that cardiology services tend to be provided in private sector. Note, however, that the figures in Table-8.1 is simply about availability of services and gives us no idea about utilisation. Availability and utilisation together determine the net impact of a category of HCIs on satisfaction of need.

Table-8.1: Availability of clinical services in private and public HCIs

↓ Service	Private				Public			
	Clinics	Small H	Big H	All	PHCs	Small H	Big H	All
n→	71	69	10	150	53	41	12	106
Gen. Medicine	68%	86%	100%	78%	94%	95%	58%	91%
Gen. Surgery	21%	77%	100%	52%	25%	37%	67%	34%
Paediatrics	25%	61%	70%	45%	36%	68%	50%	50%
Maternity (OBG)	8%	75%	70%	43%	42%	54%	42%	46%
Orthopaedics	17%	55%	70%	38%	13%	29%	42%	23%
Burns	14%	49%	80%	35%	74%	78%	33%	71%
Diabetes	23%	42%	70%	35%	26%	56%	33%	39%
ENT	14%	46%	80%	33%	51%	44%	25%	45%
Urology	10%	39%	80%	28%	6%	20%	35%	14%
Gastroenterology	10%	35%	60%	25%	23%	27%	25%	25%
Dental	11%	25%	80%	22%	45%	56%	42%	49%
Cardiology	10%	25%	60%	20%	9%	32%	50%	23%
Neurology	7%	25%	80%	20%	6%	10%	33%	10%
Neonatology	0%	19%	60%	13%	4%	5%	17%	6%
Physiotherapy	7%	19%	70%	17%	4%	5%	33%	8%
Psychiatry	8%	19%	70%	17%	4%	10%	25%	8%
Opthalmology	7%	17%	70%	16%	13%	12%	33%	15%
Eye Testing	10%	13%	60%	15%	15%	27%	33%	22%
Oncology	4%	17%	70%	15%	2%	12%	33%	9%
Nephrology	4%	13%	40%	11%	4%	5%	25%	7%
Traction	3%	12%	10%	7%	0%	2%	17%	3%

Table-8.2: Services actually availed by patients sampled for the exit interview

↓ Service	Private				Public			
	Clinics	Small H	Big H	All	PHCs	Small H	Big H	All
n→	541	551	55	1,147	474	394	91	959
Gen. Medicine	36%	25%	27%	30%	50%	41%	40%	45%
Gen. Surgery	6%	11%	15%	9%	4%	6%	2%	5%
Paediatrics	14%	7%	2%	10%	16%	11%	1%	13%
Maternity (OBG)	9%	28%	24%	19%	8%	17%	15%	12%
Orthopaedics	9%	12%	13%	11%	11%	10%	15%	11%
Gastroenterology	5%	4%	2%	4%	5%	6%	1%	5%
Cardiology	2%	1%	4%	2%	1%	2%	0%	1%
Neurology	5%	3%	5%	4%	2%	1%	2%	2%
Diabetes	4%	1%	2%	2%	0.2%	0.3%	0%	0.2%
Opthalmology	5%	0%	0%	2%	1%	1%	11%	2%
Dental	0.2%	0%	0%	0.1%	0.4%	2%	0%	1%
Psychiatry	0.6%	0%	0%	0.3%	0%	0.3%	11%	1%
Urology	4%	2%	2%	3%	1%	1%	0%	1%
All others	1%	4%	5%	3%	2%	2%	1%	2%

All others include Burns, Diagnostics, ENT, Neonatology, Nephrology, Oncology, and others

The patient exit interview described earlier in chapter-7 provided an opportunity to appreciate the availability of services from a different perspective. In the exit interview patients were asked to inform about their diagnosis. Most patients were able to give enough details of their diagnosis to allow for a mapping of the diagnosis to various broad service categories. Table-8.2 shows the distribution of patients sampled from both private and public sector HCIs according to the service relevant for handling of their diagnosis. The diagnoses reported by most patients meant that they would have availed the services from specialties like General Medicine, Obstetrics and Gynaecology, Paediatrics, General Surgery and Orthopaedics. This is consistent with the common knowledge that these five specialties between them cater to the bulk of medical care needs of the people. Thus one way of defining a basic package of services would be to distribute available cadre of medical positions in community health centres and first referral hospitals among these specialties.

The percentage of obstetric and gynaecology patients was comparatively higher in private hospitals compared to public hospitals. This is consistent with our knowledge that many of the small nursing homes and hospitals are practice facilities of obstetricians. Delivery and other maternity care tends to become more readily available in the private sector. For example, many of the private nursing homes and hospitals in economically developed districts of the state largely provide maternity services. As seen earlier from Table-8.1, availability of OBG service in private HCIs is slightly less (43%) than that in public HCIs (46%). But the usage of OBG service by patients is higher in private HCIs (19%) compared to the public sector (12%). One possibility is that, on an average, private sector, OBG services constitute a greater share of the HCI capacity. Another possibility is that the utilisation of the private HCI, OBG services is comparatively higher than in the public sector. Since the number of diagnoses under many of the specialties were very few, all of them have been clubbed together as "All others".

III. Range of public health related services, participation in national disease control and family welfare programs by private and public HCIs in AP

Table-8.3: Availability of RCH and Imp. Public Health Problem Related Services in private and public HCIs

↓ Service	Private				Public			
	Clinics	Small H	Big H	All	PHCs	Small H	Big H	All
n→	71	69	10	150	53	41	12	106
Family planning	11%	78%	90%	47%	89%	95%	58%	88%
Antenatal care	11%	62%	70%	39%	85%	85%	42%	80%
Immunisation	13%	68%	80%	43%	85%	83%	42%	79%
Anti TB treat	18%	49%	90%	37%	74%	85%	50%	75%
Nutrnl followup	14%	23%	60%	21%	57%	44%	42%	50%
Lap sterilisation	0%	20%	60%	13%	28%	34%	25%	30%
Infertility clinic	14%	35%	50%	26%	11%	22%	25%	17%
AIDS education	0%	0%	0%	0%	0%	0%	8%	1%

Availability of certain reproductive, child health care and a few other services of public health importance are shown in Table-8.3. The services included in this table are family planning, ante natal care, immunisation, anti TB treatment, nutritional follow-up, laparoscopic sterilisation, infertility clinic, and AIDS education. Small private hospitals are slightly more likely to provide these services in comparison to the small public hospitals. Maternity service is more frequently available in private hospitals, both small and big. The proportion of big hospitals in the public sector providing these services is comparatively less than what was reported by private big hospitals. This may be on account of inclusion of some uni specialty public hospitals in the sample. The important distinction is at the level of clinics. Much larger percentage of public sector clinics provide these services in comparison to the private sector clinics. For example, more than 89% of public clinics provide family planning services compared to 11% of private clinics. Ante natal care is available from 85% of public clinics against only 11% of private clinics. Similarly 85% of public clinic provide immunisation services compared to only 13% of private clinics. Anti tuberculosis treatment was available from 74% public clinics and 18% of the private clinics.

Table-8.4 depicts information about participation of HCIs in various national programmes. There is some overlap of services shown in Table-8.3 and 8.4. Table-8.3 is about the response to questions regarding availability of clinical services. Table-8.4 is the summary of response to a question about participation in National Programmes. This was a simple question asking "Do you participate in any of the following national health programmes and how?" The nature of participation would include clinical service and other services like health education etc. Thus for the same programme, the figure in Table-8.4 is either equal to or greater than the figure for the corresponding cell in Table-8.3. But response to the question on National Programme participation would also depend on the existence of an interface between the HCI and the concerned program. For example a private hospital offering family planning services may not participate in channeling of government incentives for sterilisation operations. Such a hospital would report family planning as one of the available services but may give a negative response to the National Programme participation question. Hence an exact map of figures in Tables 8.3 and 8.4 should not be attempted. However, broad similarity of figures in two tables for similar services will give us more confidence about reliability of responses to the concerned questions. Family planning is the only service and program common to the two tables and the figures for this in the two tables are comparable. For example, according to Table-8.3, 47% of all private HCIs said they provide family planning services. An exactly similar percentage of private HCIs respond that they participate in Family planning programmes (Table-8.4). The corresponding figures

for all Public HCIs are 88% in Table-8.3 and 90% in Table-8.4. If we go down to each category of HCIs the variation is a little more, but the figures are pretty close.

Table-8.4: National program participation by private and public HCIs

↓ Service	Private				Public			
	Clinics	Small H	Big H	All	PHCs	Small H	Big H	All
n→	71	69	10	150	53	41	12	106
Polio prevention	31%	67%	90%	51%	96%	95%	82%	94%
Family Planning	27%	62%	80%	47%	96%	90%	55%	90%
Leprosy control	10%	14%	50%	15%	83%	83%	36%	78%
Tuberculosis control	17%	35%	70%	29%	85%	93%	64%	86%
Blindness control	17%	25%	60%	23%	83%	83%	36%	78%
Malaria control	21%	28%	50%	26%	92%	90%	45%	87%
AIDS control	21%	42%	60%	33%	89%	90%	82%	89%

Let us now look at the substantive aspects of Table-8.4. As expected almost all PHCs (83 to 96%) are participating in various national programmes. The PHCs are designed to implement national programmes. Hence this high level of participation is expected. In fact, one would expect 100% of PHCs to be participating in all national programmes. The shortfall from 100% needs explanation. We queried the data set to generate a list of the PHCs and public sector clinics, which reportedly do not participate in one or more of the National Health Programmes. There are 14 such public sector clinics consisting of six PHCs, six dispensaries and two urban family welfare centres. One can explain non participation of urban family welfare clinics in such public health programmes as Leprosy or Tuberculosis control. Similarly the dispensaries may not have been designed to participate in all National Health Programmes. Actually three dispensaries reported that they do not participate in either polio immunisation or family welfare program. All the six PHCs participate in polio and family welfare programmes. Thus cent percent of PHCs reported to participate in polio immunisation and family welfare programmes. Three of them reported that they do not participate in TB or leprosy control. All PHCs reported to participate in malaria control. One PHC reported nonparticipation in AIDS control. Almost all small public hospitals reported to be participating in various national programmes. Percentage of big hospitals participating in some national programmes is lower compared to PHCs and small public hospitals. The question was asked separately for each of the listed national programmes. Since the sample of big

public hospitals included some uni specialty institutions, they would not have a role in some national programmes. For example an eye hospital would not have a role in polio control or say in malaria control.

Moving on to the private sector, we find that quite a large percentage of big private hospitals reported to be participating in various national programmes. Rate of participation in national programmes drops to around 30% in case of small hospitals and around 20% in case of private clinics. Polio and family planning programs are exceptions. More than 60% of small hospitals in the private sector reported to have participated in these programs. Rate of participation of private clinics in polio control program is around 30%. It would appear that big hospitals would play some role in National Health Programmes to broaden the scope of their services and in response to expectations of their clients. Participation by clinics and small private hospitals would appear to be determined by the interest of respective owner managers and effectiveness of the concerned programmes to involve the private sector. The higher rates of participation by private clinics and small hospitals in Polio and Family Welfare programmes would appear to have been due to specific efforts by these programmes to involve the private sector. We know, for example, that Polio vaccines are being made available by public health authorities to private clinics and hospitals. The pulse polio program drives are known to have included private sector institutions in many places. Similarly the Family Welfare program has specific schemes for reimbursement of monetary incentives to sterilisation acceptors through private hospitals and clinics.

IV. The healthcare diagnostic services market in AP

Diagnostic tests are important for good quality medical care. Intramural availability of diagnostic services in health care institutions enables proper management of critical cases. Availability of diagnostic service under one roof also can reduce delay. Hence intramural availability of diagnostic services is an important quality enhancing characteristic of health care institutions. On the other hand, diagnostic services usually have a better developed market with more choices for patients. Many diagnostic facilities solely provide diagnostic services. In this study, information on diagnostic services was collected and studied from both perspectives. Information on intramural diagnostic services was collected through the basic information and owner manager questionnaires administered to the primary sample of health care institutions. In addition, each of the health care institution in the primary sample acted as a sampling locator of diagnostic facilities. We call this the diagnostic facility sample. The diagnostic facility questionnaire, which is essentially a combination of the basic information and owner manager questionnaires was used to collect information from the diagnostic facilities sample. Here we first summarise data on intramural diagnostic services and then proceed on to the diagnostic facility sample.

A. Intramural diagnostic services

Availability of basic diagnostic facilities like pathology, biochemistry, microbiology, X-ray, ECG, and Ultrasound appears to be similar for big hospitals in both private and public sector (Table-8.5). One noteworthy finding is that there are nearly 20% big hospitals in both private and public sector which do not provide pathological, and biochemical tests. A big hospital in this study has been defined to have at least 100 beds. One would expect all big hospitals to have at least pathology, biochemical testing facilities and imaging services like simple X-ray. But some of these hospitals appear to be managing without even these basic diagnostic services. It may be helpful to precisely define minimum diagnostic facilities for hospitals of different sizes, to assure that big hospitals have basic services that people would tend to expect in view of the size of these hospitals. Quite expectedly, more of the big hospitals in the private sector have additional diagnostic services compared to the public hospitals. These are mostly in the area of imaging like echocardiography, gastroscopy, and bronchoscopy. More private big hospitals provide cardiology related diagnostic services like holter and treadmill. This is consistent with common observation that cardiological services are important revenue sources for big private sector hospitals. In the small hospital category, more percentage of institutions in the private sector, provide various diagnostic services compared to the public sector. This is consistent with common observation that diagnostic services tend to be well provided through private sector.

Table-8.5: Availability of intramural diagnostic services in private and public HCIs (%)

↓ Service	Private				Public			
	Clinics	Small H	Big H	All	PHCs	Small H	Big H	All
n→	71	69	10	150	53	41	12	106
Biochemistry	15%	65%	80%	43%	8%	29%	67%	23%
Micorbiology	11%	32%	70%	25%	8%	12%	50%	14%
Pathology	8%	38%	70%	26%	11%	37%	75%	28%
ECG	14%	65%	70%	41%	0%	17%	67%	14%
X-Ray	4%	41%	70%	25%	0%	32%	75%	21%
Ultra Sound	1%	36%	70%	22%	0%	2%	58%	8%
Echocardiography	1%	6%	60%	7%	0%	5%	25%	5%
Gastroscopy	0%	13%	60%	10%	0%	7%	33%	7%
Bronchoscopy	0%	10%	60%	9%	0%	0%	42%	5%
Treadmill	0%	6%	60%	7%	0%	0%	25%	3%
Holter	0%	3%	50%	5%	0%	0%	33%	4%
Allergy testing	3%	9%	40%	8%	0%	2%	33%	5%
Hormones test	3%	9%	40%	8%	0%	0%	33%	4%
CT Scan	1%	9%	50%	8%	0%	0%	8%	1%

Most PHCs and private clinics do not provide any diagnostic services (Table-8.5). A few of these institutions provide pathology, biochemistry and micro biological tests. Some private clinics (14%) provide ECG services and a few provide diagnostic services like X-Ray (4%), allergy testing (3%), or hormones test. This statistics is on expected lines. Although most clinics are organised as out patient consultation facilities, they have the flexibility to provide specific diagnostic services, if that would add to the practice of the concerned doctor. That would explain the fact that a few private clinics provide more specialised diagnostic services like X-ray, Ultrasound or allergy testing etc. The public sector clinics are expected to follow a more uniform pattern, in view of centralised planning. Some laboratory facility is provided for in the organisational pattern of PHCs. Hence one would expect a high percentage of these institutions to report availability of at least the basic diagnostic facilities like pathological and biochemical tests. But only 8-13% of public sector clinics reported availability of diagnostic facilities, suggesting that in a very large number of these institutions the diagnostic services are not operational.

Table-8.6: Usage of extramural diagnostic facilities either entirely or in addition to intramural diagnostic facilities

HCI Type	# reporting		HCIs referring to outside diag. fac.	
	Private	Public	Private	Public
Clinics	71	53	85 %	87 %
Small hospitals	69	41	87 %	56 %
Big hospitals	10	12	80 %	50 %
All	150	106	85 %	71 %

To assess the extent of reliance on extramural diagnostic services we asked if the health care institution refers cases to outside diagnostic facilities (Table-8.6). Extramural diagnostic facilities may be used by HCIs for various reasons. Firstly due to intramural facility capacity constraints. Secondly to allow the patients choice of providers. Thirdly to complement intramural facilities for tests not available in the intramural setup. Extramural diagnostic services are availed by more than 70% of health care institutions. The practice of referring to outside diagnostic facilities appears to be slightly more in the private sector. It is noteworthy that about half of public hospitals do not refer patients to outside diagnostic facilities. This could partly be due to more comprehensive availability of diagnostic services in the public hospitals. Other factors may also be at work. For example, if the clientele of a public hospital largely consist of very poor persons, they may not be able to afford the cost of extramural diagnostic services. Almost all public sector clinics (87%) use extramural diagnostic facilities. Since

the diagnostic facility in most PHCs appear to be inoperative, usage of outside diagnostic facility by most of them is to be expected. There may also be lack of clarity about hospital policy regarding referral of cases for outside diagnostic services. Over all the practice of using extramural diagnostic services is widely prevalent. This is facilitated by the existence of a fairly large body of primarily diagnostic facilities in the private sector.

B. Extramural diagnostic services:

Table-8.7: Diagnostic Facility Sample and its Composition

	Private	Public	All
HCIs in the primary sample acting as locators of extramural diagnostic facility	150	106	256
Located diagnostic facilities after discounting multiple references to same institution	167	35	202
Diag. facility excluding HCIs in primary sample	161	24	185
Primarily diagnostic facility	86%		75%
Small hospitals providing diagnostic services	9%	25%	11%
Big hospitals providing diagnostic services	4%	75%	14%

We now turn to examination of the diagnostic facility sample (Table-8.7). We tried to locate one extramural diagnostic facility for each health care institution in the primary sample. Altogether 202 institutions were located through the 256 HCIs in the primary sample. The same diagnostic facility was located through more than one HCI in the primary sample. Hence the total number of diagnostic facilities located by us (202) is less than the total number of locators (256). Compare the difference in private public ratio of locator HCIs (150:106, approx. 1.5: 1) to that of located diagnostic facilities (167:35, approx. 5:1). The locators consist of approximately 1.5 private HCI for every public HCI and located diagnostic facilities have approximately 5 private facilities for every public facility. In other words, extramural diagnostic services are mainly available in the private sector. Some of the locator HCIs were identified as extramural diagnostic facilities by other HCIs. Excluding these institutions, we have 185 diagnostic facilities consisting of 161 institutions in the private sector and 24 in the public sector. We classified these as primarily diagnostic facility (PDF) or as hospitals offering extramural diagnostic services, based on the information about the source of revenue, number of beds, title of the institution and our knowledge of its activities. Those classified as PDF provide diagnostic services only. There are 139 such

institutions in the diagnostic facility sample, i.e. 75% of the diagnostic facilities, excluding HCIs in primary sample or 69% of the diagnostic facility sample are primarily diagnostic facilities. All primarily diagnostic facilities are in the private sector.

Table-8.8: Availability of tests - % of diagnostic facilities reporting availability

↓ Test type	Primarily Diag. Fac.	Small H Diag. Fac.	Big H Diag. Fac.	All
n →	139	21	25	185
Pathology				
Complete urine examination	83%	76%	80%	82%
Complete blood picture	78%	62%	76%	76%
Pap smear	48%	14%	48%	44%
Erythrocyte sedimentation rate	40%	24%	60%	41%
Total count differential count	21%	24%	28%	22%
Biochemistry				
Blood urea	78%	62%	76%	76%
Blood sugar	78%	62%	76%	76%
Hormone test	47%	14%	36%	42%
Bile pigment	36%	10%	16%	30%
Serum creatinine	20%	5%	36%	21%
Serum bilirubin	16%	14%	32%	18%
Liver function tests	14%	0%	16%	12%
Imaging				
X-Ray	65%	62%	88%	68%
Ultrasound	38%	19%	64%	39%
CT Scan	7%	0%	20%	8%
Cardiology				
ECG	69%	38%	64%	65%
Echocardiography	12%	0%	16%	11%
Tread mill test	7%	0%	12%	7%
Microbiology				
Sputum for AFB	20%	19%	32%	22%
VDRL Test	22%	10%	20%	20%
Widal Test	19%	5%	28%	18%
Hepatitis-B antigen test	22%	14%	44%	24%

Table-8.8 shows the availability of extramural diagnostic services. Note that this tabulation is based on response to a semi-structured question. Each diagnostic facility was asked to list out the services available with them. Only a few services were prompted. These prompted services include; (a) Pap smear under pathological tests, (b)_Hormone test under biochemical services, (c) X-Ray, Ultrasound, CT, Echocardiography, Gastroscopy, and Bronchoscopy under radiological and imaging services. In addition respondents were prompted about other services like (b) blood bank, allergy tests, peritoneal and haemodialysis. Prompted tests and services are likely to be reported more accurately or a little bit over reported due to a positive recall bias. Non prompted services are likely to be underreported due to a negative recall bias. Pathology, biochemistry and radiological services are most commonly available. Complete blood picture, complete urine examination are very commonly provided pathological tests. Blood sugar and blood urea are clearly the most common biochemical tests. X-Ray, and Ultrasound services are found to be quite common. One would normally expect high cost diagnostic facilities like CT Scan services in big hospitals. Seven percent of the primarily diagnostic facilities reported to provide CT scan services. Diagnostic facilities for heart disease like the ECG, Echocardiography, and tread mill etc. are also commonly available.

V. Availability of auxiliary services in private and public HCIs

Table-8.9: Availability of auxiliary services in private and public HCIs (H = Hospitals)

↓ Service	Private				Public			
	Clinics	Small H	Big H	All	PHCs	Small H	Big H	All
n→	71	69	10	150	53	41	12	106
Telephone	79%	96%	100%	88%	6%	41%	92%	29%
Food service	1%	4%	50%	6%	4%	7%	67%	12%
Pharmacy	15%	62%	90%	42%	81%	88%	92%	85%
Ambulance	6%	23%	80%	19%	26%	34%	92%	37%
Blood Bank	0%	6%	60%	7%	0%	0%	33%	4%
24-hour Em Ser	11%	67%	80%	41%	25%	59%	67%	42%

Table-8.9 shows availability of certain auxiliary services. Telephone, ambulance, and 24-hour emergency service reflect accessibility. Ambulance and 24-hour emergency service are important quality of service indicators for health care. Most private health care institutions have telephone connections.

Big hospitals in both private and public sector have telephone lines. But many small hospitals and primary health centres in the public sector are not accessible by telephone. Accessibility by telephone is an important quality of service characteristic. In view of the emphasis on liberalisation and expansion of telecommunication services in the country, more and more villages and households have access to telecommunication facility. Moreover, telephone density in Andhra Pradesh is comparatively better. This would mean that lack of telephone connection in many of the public health care institutions may be a critical missing link in improvement of accessibility and utilisation of public health facilities. Twenty four hour emergency service is an important addition to the service portfolio of health care institutions. About 40% of both private and public HCIs were providing 24-hour emergency service. Eighty percent of big and 67% of small private hospitals provide round the clock emergency service. 67% of big public hospitals in the sample had 24-hour emergency service. The remaining three big public hospitals are specialty hospitals for treatment of tuberculosis or psychiatric illness. 24-hour emergency service is not so critical to the service delivery by these institutions. Two of the ten big private hospitals without 24-hour emergency service consist of a maternity hospital and a non profit hospital. Thus, in case of big hospitals, the public sector appears to provide 24-hour emergency service in all hospitals where the specialty composition of regular service requires it. Private small hospitals appear to do slightly better in providing 24-hour emergency service compared to small hospitals in the public sector. This is consistent with the fact that most private small hospitals are doctor's practice facilities. It is well known that many doctor owners of these facilities live in the same premises and do provide round the clock emergency service. Emergency service preparedness of small hospitals in the public sector needs to improve. Mahapatra and Berman (1994) observed that about 40% of first referral public hospitals in Andhra Pradesh did not provide any emergency service. Results of this survey shows that about 43% of the small public hospitals do not provide 24-hour emergency service. The 24-hour emergency service definition used in this study is slightly different from the emergency service index used by Mahapatra and Berman. The emergency service index used by them includes out patients seen beyond regular hours, and emergency admissions. In this study we simply asked if 24-hour emergency service was available. Their study was on first referral services managed by the AP Vaidya Vidhana Parishad, which at that point of time mainly dealt with government hospitals in district and erstwhile Taluq headquarters. The spread of public small hospitals included in this study is more and includes both APVVP as well as Directorate of health institutions. Allowing for the differences in definition and sample of the two studies, it would appear that proportion of small hospitals in public sector providing emergency services has remained more or less constant between 1991 and 2000. Pharmacy services are available in more public sector

HCIs compared to the private HCIs, for all the three categories. Very few of the HCIs provide blood banking services. There is no difference in availability of blood bank services, by ownership of the institutions.

VI. Summary of evidence about range of services in private and public HCIs

Private forprofit HCIs tend to more readily offer certain services and shy away from others. This may mean that there are healthcare services where the private forprofit HCIs have a comparative advantage. In addition, forprofit health care institutions (HCIs) may cream skim best paying patients by focusing on most profitable services. Restricting the range of available services is one form of cream-skimming. Experience from industrialised countries suggests that forprofit HCIs cater to more defined demands like ambulatory care, surgery, and maternity services. Findings by earlier studies in AP and from this study are consistent with the experience from industrialised countries. We found, for example, that availability of clinical services in hospitals was more or less similar between private and public sector. But the later provided in addition, other services related to various public health programmes.

The study also revealed that private HCIs are quick to enter into the diagnostic services provision. All primarily diagnostic facilities in the study sample were private forprofit institutions. Similarly, ambulatory care very readily appears in the private forprofit sector, mostly by way of proprietary physician practice facilities. The proprietary physician practice facilities may have a distinct comparative advantage in provision of ambulatory care, by locating nearer to client locations, more compatible timings and better interpersonal care. Experience from industrialised countries also supports the general preference for proprietary physician practitioners as far as ambulatory care is concerned. Household survey data on health seeking behaviour in India shows higher preference for private HCIs for ambulatory care. Some of the factors giving a comparative advantage to private proprietary HCIs for ambulatory care are obvious. Since these are usually small in size ranging from solo clinics to small hospitals, they have the required locational flexibility to a site nearer to their clientele. Distance is an important consideration for accessing of services from health care facilities and more so for ambulatory care. Another clear advantage of proprietary HCIs is their flexible timing, which again is an important consideration for accessing ambulatory medical care. Thus, it would appear that private forprofit HCIs have a distinct comparative advantage for delivering ambulatory medical care.

There is some evidence of cream-skimming. For big hospitals, there appears to be no restriction in availability of public health services between private and public HCIs. Rate of participation in national programmes drops to around 30% in case of small hospitals and around 20% in case of private clinics. Polio and family planning programs are exceptions. More than 60% of small hospitals in the private sector reported to have participated in these programs. Rate of participation of private clinics in polio control program is around 30%. It would appear that big hospitals would play some role in National Health Programmes to broaden the scope of their services and in response to expectations of their clients. Participation by clinics and small private hospitals would appear to be determined by the interest of respective owner managers and effectiveness of the concerned programmes to involve the private sector. The higher rates of participation by private clinics and small hospitals in Polio and Family Welfare programmes would appear to have been due to specific efforts by these programmes to involve the private sector.

An important finding from the data on the range of available services is about failure of rational planning process in the public HCIs. The range of services available in a cross section of private health care institutions would be a result of two factors, namely the range of skills that doctors have to offer and demand for various services. On the other hand, we would normally expect the public sector to offer a smaller but more consistent range, if they were implementing something like an essential clinical package. We found that the range of clinical service available in public sector health care institutions in AP is not very different from that of in the private sector. It appears that in the matter of general clinical services both private and public sectors operate alike. Availability of clinical services in public sector appears to be determined by what doctors working in public sector have to offer. This is mainly because the personnel policy does not yet adequately define the cadre strength of doctors by specialty.