Financing the Cost of Universal Access to Healthcare

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Taking forward the discussion from the January 2011 mfc meeting at Nagpur and the discussion during the provisioning and financing sessions, it was felt that we need to work out the nuts and bolts of the costing and financing of UAHC. This paper will try to make further sense of the numbers presented at the Nagpur meeting within a strategic framework for financing UAHC.

Before we engage with financing and costing numbers it is important to be clear about the volume and character of provisioning to which we want to provide access. Reviewing the discussions based on my provisioning paper and other contributions during the Nagpur meeting, I am suggesting below a brief profile of the "package" that should be delivered to start with on a course towards progressive realization.

Primary Healthcare

1. **Family Practice and Epidemiological Services**: This is the base of the healthcare system. It is a combination of family medical practice and public health which is delivered to a unit of an average 500 families (ranging perhaps from 100 in sparsely populated areas to over 1000 in dense habitations), assuming that on any given day between 2 to 3 percent of the population seeks primary care – preventive, promotive and curative. For this an epidemiological station (an upgraded version of the current PHC) for between 10000 to 50000 population would be needed with a core staff of a public health professional, paramedics, community health workers and other support staff to manage public health needs of its area, including outreach through subcentres and an appropriate number of clinicians based on the population load, on an average one per 500 to 1000 families, who would engage in family practice either as employees or contracted in practitioners under a regulated capitation system of payment similar to the UK NHS, and not allowed private practice. All families and individuals in this unit's coverage area will be **enrolled** under the UAHC and will be entitled to all primary care services (allopathic with progressive integration of AYUSH) – curative, immunization, maternal care, contraceptive, dental, ophthalmic, mental health, counseling, health education, environmental and public health, disease surveillance and control, rehabilitation and occupational health, pharmaceutical and basic diagnostic services, ambulance and mobile health services etc. The FMP could be an allopath or an Ayush practitioner, the latter with crash training in allopathic medicine, who would be located in each subcentre of the epidemiological station area. The head of the epidemiological station would be either an allopath or Ayush doctor who also has training in public health.

2. **First level Referral Care**: Presently we have the model of CHCs as first referral units but most are non-functional due to poor human resource availability, especially of specialists. Since this infrastructure

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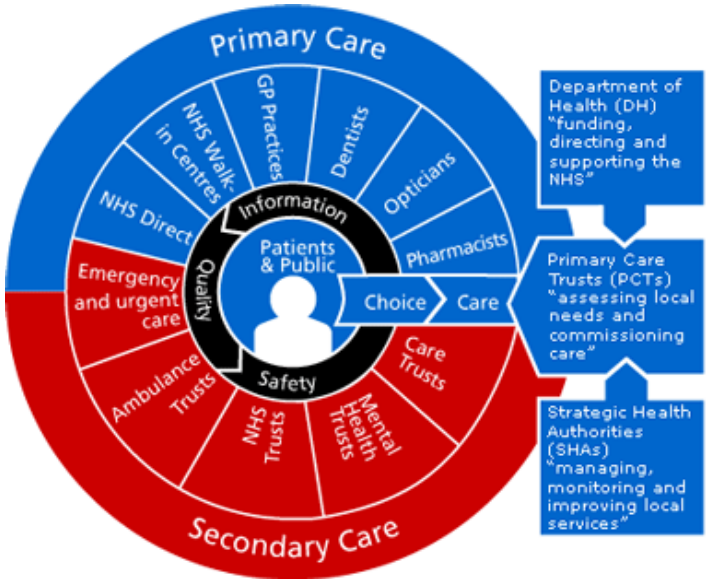
with 30 beds is already there in most places it should be retained but I am suggesting a dovetailing of this with a block level (more likely to get specialists) basic hospital of atleast 100 beds (depending ofcourse on the population size but approximately one bed per 1500-2000 population). This means that the base referral unit would be the block level hospital and the CHCs (about 3 per Block) would be its ancillary units providing integrated referral and basic specialty services. The block level (in cities the Municipal ward with a single 150-bed hospital, that is no CHCs) would be the health district which will have a local health authority (a sub-unit of the National and State health authorities) that would administer and govern the basic healthcare system of the area. For each basic specialty there should be atleast two specialists employed or contracted in (those contracted in to the UAHC would commit full time and would not be allowed private consultative practice) and progressively numbers could be increased as they become available towards a goal that each CHC has all basic specialists and the block hospital gradually gets upgraded for higher level referrals.

Secondary and Tertiary Care

The district and large city hospitals 500-2000 beds, including the teaching hospitals, would provide higher levels of care (about 1 bed per 3000 population). Where public hospitals are not available in adequate numbers private hospital beds would be contracted in through a regulated purchase agreement for exclusive service under the UAHC.

The entire system would be regulated and would have a gate-keeping system through a strict referral mechanism. All non-emergency cases would only come as referrals from the primary healthcare level.

The above is not a complete description but only an outline to facilitate the costing of such a UAHC. However, it needs to be developed on the lines of the UK NHS as shown in the following diagram but modified to suit the structures and needs within the country.



A. Working out the Cost

We are not confining this calculation to the 2-3% GDP commitment of the UPA but working out the cost based on the basic healthcare package defined above. This would of course be a staggered development but we are confining it to the 12th Plan period assuming that reasonable political commitment would be mobilized to get this core package up and running before the end of the 12th Five Year Plan – so basically what we are saying is that the 12th Plan resources should be coterminous with this costing. Further the costing is being worked out on the basis of an average unit as defined above – 750 families for a FMP unit, 30000 population and 10 beds for an Epidemiological Station or PHC, one bed per 1000 population for the basic hospital and CHCs, and one bed per 3000 population per district/tertiary hospital (overall one bed per 600 population)– but on the ground will depend on the population covered and the density of an area, with unit rates of payments being adjusted for sparse population (higher rate) and dense population (lower rate). The costing is being done at 2011 prices and a population base of 125 crores and GDP of Rs 7,500,000 crores.

Primary Care Cost

1. FMP, one per 750 families @ Rs. 1000 per family per year, including overheads. For 25 crore families 330,000 FMPs needed = Rs 24,750 crores

Rationale: Average net income of between Rs. 5 and 6 lakhs per year and Rs. 1.5 to 2.5 lakhs as overheads, maintenance, assistance etc. of the clinic. The clinic would preferably be located at the subcentre and the ANM and MPW of the subcentre (paid by the ES) would support the clinic for preventive, promotive and outreach activities.

2. Epidemiological Station for 30,000 population @ Rs.350 per capita, including PHC, subcentres, CHWs, ambulance services, basic diagnostics, public health programs, 10 beds etc. 42,000 ES needed = Rs. 44,100 crores

Rationale:

- Staff composition for each PHC-FMP unit to include 5 doctors (one coordinating the ES-PHC and 4 clinicians located at subcentres and the latter paid independently as mentioned in (1) above), 1 PHN, 2 nurse midwives, 8 ANMs (females), 4 MPWs (males), 2 pharmacists, 2 clerk/stat asst., 1 office assistant, 2 lab technicians, 1 dental asst, 1 opthalmic assistant, 1 physio assistant, 1 counsellor, 3 drivers (2 for ambulance), 1 cleaner and 20 CHWs etc. Doctors and nurses may either be salaried or contracted in on a capitation basis as in the NHS of UK. The curative care component should work as a family medical practice with families (100 - 1000 depending on density) being assigned to each such provider.

- Average of 10 beds per PHC, 2 ambulances, pharmacy, basic diagnostics, ophthalmic, dental, physiotherapy and counseling units, 4 subcentres, etc.
- Average rural unit to cover 20,000 population (range 10-30 thousand depending on density); average urban unit to cover 50,000 population (range 30-70 thousand population depending on density)
- All consumables, POL etc, except drugs included

3. Pharmaceutical services for primary care (FMP and ES) @ Rs. 60 per capita per annum = Rs 7,500 crores.

Rationale: Based on NSSO data and the debates we have had over the past year and assuming that generics will be used mostly, and bulk and rationalized buying and elimination of retail purchases will reduce substantially the cost of drugs to the state.

4. Basic Hospitals at Block and CHC @ 200 beds per block unit (avg population 200,000 with 1 bed per 1000 population) @ Rs. 750,000 per bed per year. Beds needed 1,250,000 = Rs 93,750 crores.

Rationale: Based on costing studies/budgets of public and private hospitals[2] (non teaching and non-multispecialty). This includes all costs like salaries/fees, diagnostics, medicines and other consumables and admin and maintenance costs, ambulance services etc. To begin with atleast two specialists for each of the six specialties (physician, surgeon, Ob & Gynaec, paediatrician, ophthalmologist, orthopaedic), 1 physiotherapist, 1 dentist, 1 anaesthetist, 2 MOs per CHC, 6 MOs at Block Hospital, 40 nurses for the Block, 6 counsellors/socialworkers and the other requisite paramedics and support staff needed in such hospitals.

Secondary and Tertiary Care Cost

District level and city hospitals @ 1 bed per 3000 population @ Rs 15 lakhs per bed per year, including medical and health education (doctors, nurses and paramedics). Beds needed 417,000 = Rs. 62,550 crores.

Rationale: Based on costing studies/budgets of teaching and multi specialty public and private hospitals[3]. This includes all costs like salaries/fees, stipends, diagnostics, medicines and other

[2] Cost studies and budget analysis done by CEHAT, and the author, of small private hospitals, CHCs, cottage hospitals.

[3] Based on budgets of Mumbai (KEM and GS Seth), Delhi (Safdarjung and RML) and Maharashtra public hospitals (district and teaching), charity teaching hospitals (Sewagram and Sathya Sai) as well as of corporate hospitals like Apollo Group, Fortis Group, Max Healthcare, CEHAT cost study etc. It is interesting to note the huge variations in per bed cost across various hospitals. Apollo net of profit 1.8 million, Fortis net of profit 1.5 million, Max net of profit Rs 3 miilion, Pune multi-specialty hospital (CEHAT study) net of profit Rs.1.4 million, Safdarjung Hospital and Vardhaman Medical college Rs. 1.9 million, Ram Manohar Lohia 2.5 million, Maharashtra district hospitals 0.4 million, Maharashtra teaching hospitals 0.6 million and surprisingly the KEM and GS Seth Hospital in Mumbai just 0.5 million, and another surprise the AIIMS being a whopping 3.6 million. The charity oriented and ethically operating hospitals are very interesting – Sewagram has a per bed cost of Rs. 0.76 million (with 17% income coming from patients) and the Sathya Sai hospitals only 0.68 million per bed (zero cost to patients and some voluntary labour by devotees).

consumable, admin, maintenance, education, training, etc. The staff composition as per existing teaching and district hospital norms – the suggestion is that all district hospitals should eventually become teaching hospitals so as to decentralize production and improve retention within districts. The range of costs will vary according to the mix of services provided and could range from 10 lakhs per bed to 25 lakhs per bed as unit cost.

A note of caution about the costing worked out. In working out the hospital costing I have erred on the higher side since market pricing has been factored. Under a public monopoly and use of rational therapeutics, strict audit and accountability these can be substantially negotiated down, closer to 1 million per bed for teaching hospitals, 0.75 million for the larger general hospitals and 0.6 million for the Block level hospitals. Further the new investment capital spending of 15% would be restricted to the 12th Pan and if proposed infrastructure is in place then in later years this would be much lower.

A summary of Costs is given below:

Primary Care cost **Rs. 170100 crores (including first referral hospital)**

Secondary/Tertiary care **Rs. 62550 crores (including Medical and health education)**

Total Health Services Cost = Rs. 232,650 crores (Rs.1860 per capita or 3.10% of GDP)

Add 2% Medical Research **4,653**

Add 2% audit and info mgt **4,653 (including accreditation/standards monitoring)**

Add 5% admin/governance **11633 (costs of the health authorities and system management)**

TOTAL Recurring **253,589 crores (Rs. 2029 per capita or 3.38% of GDP)**

Add 15% new Capital investm't **38038**

Add 10% amortization **25,359**

Add 5% Contingency **12,680**

Total Health care **Rs. 329,666 crores (Rs. 2637 per capita or 4.39% of GDP)**

B. Financing Strategy

The resources for this will come mainly from general tax revenues. At present tax revenues are not adequate (only 17% Tax: GDP ratio) to support such a large budget for healthcare. Ideally for reasonable social sector financing the government should have a Tax: GDP ratio of atleast 25%. Within the present tax framework it is possible to raise the Tax: GDP ratio to over 30% if most of the tax expenditures

(revenue forgone)for the corporate sector are done away with. The corporate lobby is too powerful to let go of this subsidy they get, and in fact with each year's Finance Act during the past decade there has been a consistent increase and the latest figures indicate that the revenues forgone are almost equal to the tax revenues collected – indicating a potential for doubling the Tax: GDP ratio. Further, tax collection and compliance is also very poor – the organized sector employees and corporates pay their taxes but a large proportion of self-employed and small businesses evade taxes and a substantial number of the political and business elite conceal incomes and/or export them illegally to tax havens. This would require a much better and efficient tax administration and discipline and is estimated that it could add around 50% to the tax revenues collected.

It is unlikely that the above situation would improve substantially soon and therefore in the interim other means of raising resources for the health budget would be required. Tax based financing would be the fulcrum of the UAHC and insurance of any kind should not be used, including the RSBY and Arogyashri variety which involve either an insurance company or government as insurer. A benchmark either as proportion to GDP or as a proportion of the total government budget or alternatively even as a per capita allocation which is linked to an appropriate price index must be created so that under-financing of the health sector does not happen. Of course this would need to be revised periodically as we move towards greater progressive realization for the commitment to the highest attainable standard of health as ratified by India in the ICESCR. Some suggestions for other resources given below:

- The potential for social insurance to contribute substantially is an option worth pursuing. The 2009-10 Labour Bureau survey estimates a workforce of 415 million persons but only 63 million or 15% are getting any social security benefits. There is scope for higher payroll deductions, mainly from employers. Presently the contribution of social insurance to healthcare spending is only 5% of the public health budget and about 70% is through public sector employment. The NCEUS which reviewed this potential has recommended the expansion of social insurance and one of the key mechanisms to raise resources is through cess on goods produced in the informal sector or even a cess on overall excise duties to finance social security. All such social insurance funds like CGHS, ESIS, Railways and P&T health funds, beedi worker, plantation workers, mine workers, construction workers, matahdi workers, head-load workers and many such small occupational group funds (the health/medical benefit components) both at national and state level should all be pooled into the National Health Fund along with tax funds

- Another major source for raising resources is a comprehensive Financial Transaction Tax covering stock and commodity markets, futures trading, currency exchange, FDI investments etc. and with a 0.5% tax on the turnover nearly 6% of the GDP can be netted. This will add substantially to tax revenues

- Apart from this sin taxes and cess on consumption taxes like VAT etc. which are increasingly being used in many countries could also be an option.

- Assuring accountability for the subsidies given to the private sector under the Trust Act, land and other capital, tax waivers etc. can also provide access to significant resources in the private

health sector for public benefit. For instance, hospital beds under Trust/Society ownership is estimated to be at least 350,000 across the country and 20% of this that is mandated as social benefit would be 70,000 beds and assuming an annual running cost of Rs. 1 million per bed in value terms this benefit is worth Rs.7000 crores or an equivalent of 10% of public health spending in India. Apart from this there are other concessions given to private hospitals and other healthcare industry producers and against them there are agreements for social benefits which are not being honoured because of poor monitoring and audit by state agencies. For instance the deal between Delhi government and Apollo hospitals was to provide 30% of beds and OPDs free at Apollo hospital in Delhi but this clearly does not happen.

To accomplish the above no great structural changes are needed. What is required is for the various departments like the tax revenue, charity commissioner, finance ministry, labour ministry, etc. to do its work efficiently and honestly. That is do their jobs as per the law. So raising resources is not the big issue in financing the UAHC; the big issue and challenge is restructuring the healthcare system – re-energizing the public health system with appropriate resources and good governance and accountability, and regulating the private health sector towards its socialization under the umbrella of UAHC.

To do all the above an exceptional political will is needed. This is the key element as revealed by the recent Thailand and Brazil examples which we discussed at length at the 2011 mfc meet. For support of social sectors in India we presently have the NAC under Sonia Gandhi with a number of civil society stalwarts exerting the push. But in the last 8 years of NAC while a number of populist schemes have been mooted and have taken root they have failed to make a significant impact because they have failed to leverage significant budgetary increases – some substantial increase in Central government budgets may have happened during these years but most of these schemes are constitutionally state subjects and hence leveraging state budgets is more critical. The NAC certainly cannot do that. To promote political will we need champions in mainstream politics and that we do not find presently for the cause of health and healthcare. We may have one off initiatives like the recent free medicines one in Rajasthan or Chiranjeevi in Gujarat, Arogyashri in AP, the Assam health bill, etc. but these do not address system issues and hence are only populist schemes to help electoral politics.

Assuming that some political will exists and the resources indicated above are made available then how do we strategize the financing to achieve UAHC goals?

At the outset I would like to make it clear that the costing I have worked out above and the resources needed is not for progressive realization. These resources are for a core package that must be made available right from the word go. This has to be a comprehensive approach, you cannot take parts of it and prioritize. That is why the emphasis on the political will. The 12th Plan must in principle commit to making these resources available within the period of the Five Year Plan (Rs. 1,648,330 crores (Plan + Non-plan) at 2011 prices for the five years of the Plan must be committed), strategize it and design the structural changes needed to make this work. All the resources from taxes, social insurances, cesses, etc. should be pooled and transferred to the National and State Health Authorities as the case may be and they would transfer these resources to the block health authority as per their requirement based on the units of provision in that region.

As per the costing worked out above, the resources should be provided to the block level health authority for the areas under its oversight. This block level health authority would function as the key planning and budgeting unit with participation of providers, managers, elected representatives and civil society representatives of the region. This authority will also maintain the list of all families/households in the block and enlist them under the UAHC for which appropriate documentation (Health Entitlement card for example as suggested by HLEG) would be made. To facilitate its functioning this authority will also have a research and information management unit which will maintain all patient records, conduct local health related research etc. Further, for monitoring and social audits the Community Based Monitoring system being experimented under NRHM must be appropriately upgraded to work with the UAHC. For accreditation and standards there should be an independent national authority with its local branches (and perhaps this should be an authority that covers all social sector and development programs).

C. Payment Mechanism and Fund Flow System

The block health authorities who will get quarterly allocations from the national and state authorities will purchase healthcare services from each provider unit as per the cost schedules (detailed cost schedules for each allocation will have to be worked out). The provider units will have to provide detailed budgets of their units (this being done as part of the planning and budgeting exercise) to secure funding. The funds would be released as monthly advances and at end of each month a utilization statement along with all supporting documents (bills and vouchers) would be sent to secure the release of the next monthly installment. As far as possible all transactions should be done electronically and the effort should be to minimize cash transactions – this would also improve the efficiency of accounting and money management.

The funds from the central government will be pooled in the National Health Authority and those of the state governments in the state health authority, including the other special funds from social insurance, cesses, etc. The National Authority would send the respective share of the states from the National Fund as six monthly advances to the states. The state authorities would receive the budget demands as per the cost schedules of each unit from the Block Health Authorities and the funds would be sent to the latter as quarterly advances and at the end of each quarter a utilization statement would be sent to the state for release of the next installment. The provider units will receive monthly advances and at the end of each month would submit a utilization statement to receive the subsequent installment. As mentioned above all these transactions would happen electronically, with each oversight authority verifying periodically/randomly the veracity of the transactions.

D. Conclusions

Since lots of deficiencies of the system have to be put in order, especially infrastructure requirements, the Plan should make provisions for most of the capital expenditure in the first two years. Similarly lot of recruitments or contracting in agreements would have to be worked out in the first year itself. A special agency under the National and State Health Authorities would be needed to facilitate this restructuring and contracting in process. They would have to review the public health system, its various deficiencies

in human resources, infrastructure, governance, etc. They would have to map out the functional units needed and review to what extent the public health system will be able to meet the demands. They would have to engage with the private health sector and negotiate their terms of engagement with the UAHC. For all this a national legislation for UAHC (and Private sector regulation) with its rules and regulations would be needed immediately to help facilitate this process.

Similarly under the Health Authorities a technical research unit would have to be set up which would work out the detailed costing, pricing mechanisms, payment systems, audit and reporting systems etc.

The NHSRC and SHSRCs could be upgraded to do all this preliminary, scoping, mapping etc. work so that the proposed UAHC is up and running within the first year of the 12th Five Year Plan. On the face of it one would say this is not possible to happen so quickly and we must have a longer term perspective. But I believe that if we don't plan towards achieving this within the Plan period and generate the pressure and political will for that it will not happen even in the next 25 years.