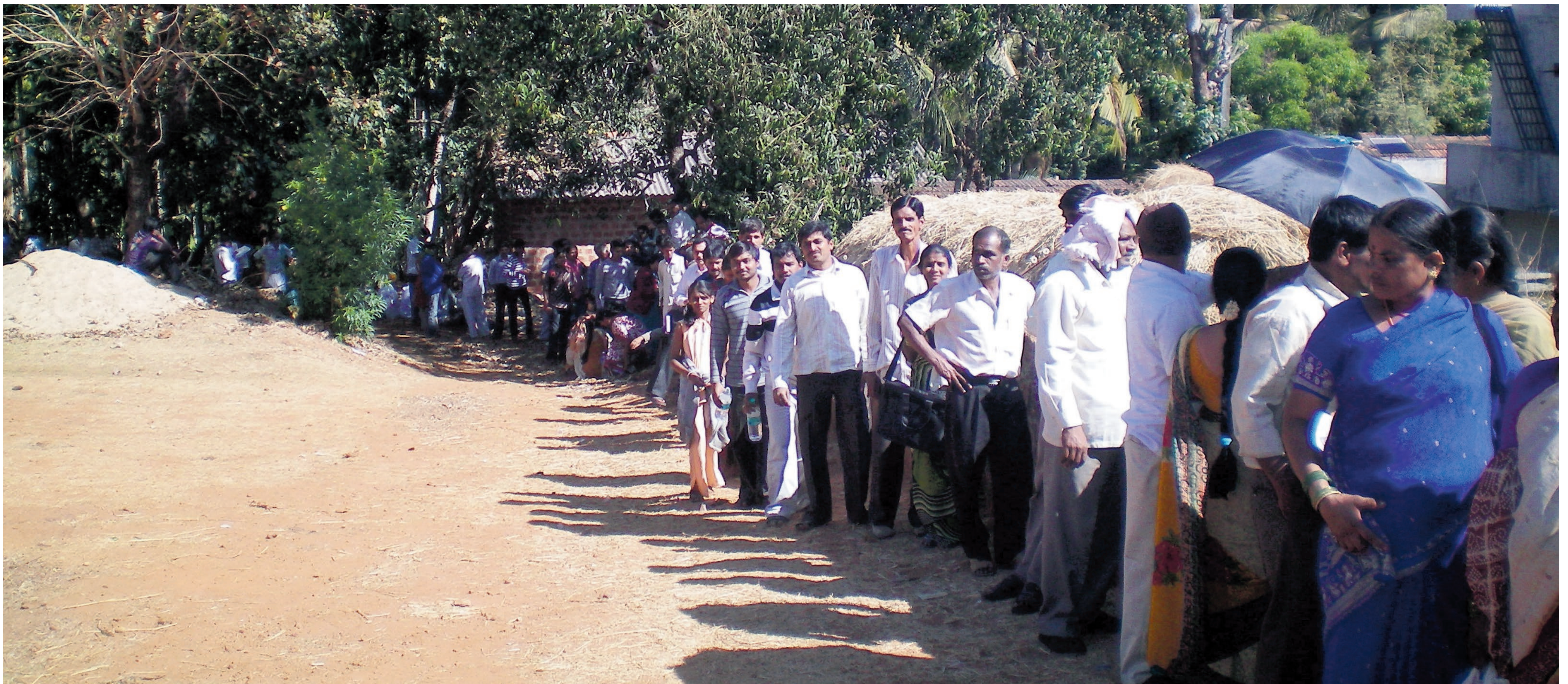
The status and role of AYUSH and local health traditions in public health[1]



India is a land of great ecological, cultural, political and economic diversity. Its healthcare system reflects this diversity, both in its plural systems of health knowledge and practice and in its range of healthcare that begins from a host of basic home remedies and culminates in the most recently developed technologies of modern tertiary care through a vast array of hospitals. Eight officially recognized medical systems make India unique. AYUSH is the current official acronym (Ayurveda, Yoga and Naturopathy, Unani, Siddha, Sowa Rigpa and Homeopathy) for what was earlier called Indian Systems of Medicine and Homeopathy (ISM&H), representing all except the eighth official system: 'western medicine', 'modern medicine' or biomedicine. Each of the AYUSH systems has its empirical base of codified knowledge, often textual, and has endured as a living tradition during a century-long dominance of western biomedicine.

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The public health system in India: undemocratic pluralism
The present public health system in India is rooted in its development during British rule. The first medical college was set up in 1822 in Calcutta, with a curriculum that was a mix of Ayurveda, Unani and 'modern medicine'. However, with claims of scientific supremacy justifying the establishment of an empire, the Ayurveda-Unani component was soon removed so that in 1935 it became an entirely British-style medical college. This was the beginning of the western biomedicine dominance that took over a century to become evident in the everyday lives of large sections of the Indian population. However, the marginalization of the existing Indian medical systems was contested by their practitioners in various ways. By the time independence from British rule came in 1947, the educated elite who became the decision makers, had imbibed the idea of modern scientific supremacy. Yet there was organized opposition to its hegemony, both as a nationalist assertion and as a struggle to preserve what was indigenous and useful, and there was a continued use of Indian medical systems by a vast majority of the population. In an attempt to 'modernise' Indian medicine from within, precursors of colleges, i.e., the 'schools' that created licentiates of Indian medicine or that gave diplomas, *pathshalas* for Ayurveda and *madarasas* for Unani, were initiated at the end of the 19th century and grew in number over the next three decades, to be transformed into full-fledged degree-awarding institutions in the post-independence period. The production of medicines, which was generally done by the practitioners themselves for their patients, responded to the challenge of modern medicine by a 'pharmaceuticalisation', i.e., the emergence of a mass production industry. Along with these trends outside the government system, in several parts of the country dispensaries and hospitals of indigenous systems were set up by the local urban governments, which had elected representatives. These were in addition to the vast number of private practitioners of each system.

Thus, the spectrum of indigenous medicine included a large number of practitioners who were literate in the textual languages: Sanskrit, Arabic, Tamil. However, a larger number included those who had learned not from texts, but by serving and practising with a *guru* [teacher]. In an organic association with these codified systems were a vast array of 'folk healers' who treated all problems as general practitioners, or who had specialized as herbalists, bone-setters, snakebite healers, traditional birth attendants and so on. Overlapping with the naturalist category of folk healers were the faith healers or shamans and mystics. Many combined the chanting of *mantras* and other rituals with the herbs and animal products that were used for medicines. (fig. 1)

With India's independence, in keeping with the general political streams, there was a contestation along the lines of the Gandhi-Nehru debate, that represents, respectively, the bottom-up and top-down approaches to planned development. The Bhore Committee that was set up by the British imperial government in 1942 designed a blueprint entirely based on modern biomedicine, and this was adopted as the guide for the development of health services in post-independence India. Soon after independence, the Chopra committee was set up in 1948 to supplement the Bhore committee and recommend the role of Indian Systems of Medicine & Homeopathy (ISM&H). It suggested moving towards a 'synthesis' of all the systems to formulate one Indian system. There has been a reiteration of 'integration' by several subsequent documents over the six decades since then, including the Twelfth Five Year Plan for the period 2012-17.

However, what has developed instead is a parallel structure of institutions for each system. The growth of AYUSH institutions has mirrored that of modern biomedicine, but at a lower scale and quality. One major reason has been the imbalance in budgetary allocations that reflects this 'undemocratic pluralism'; a mere 3% of the government's health budget goes to the Department of AYUSH. Despite this there are today over a hundred AYUSH colleges administered by the government, among a total of 508 AYUSH colleges with an intake capacity of 25,586 undergraduate and 2493 postgraduate students annually. Over 3277 AYUSH hospitals and 24,289 dispensaries are administered by the central and various state governments. Since each state government is constitutionally mandated to provide for the general health services within their own state, there is great variation in these services between the states, but all have a growing institutional structure for the delivery of AYUSH services almost free of cost. The choice of one particular AYUSH system that is given prime place in a state's health services is based on the local population's characteristics that are related to the socio-political history of the area: Siddha in states with a Tamil speaking population; Unani in states with a sizable Muslim population; and Homeopathy in the northern and eastern states where it has established a strong base. While the public health system seems to have given consideration to the local cultural context in this regard, it has ignored the traditional framework of syncretic cultural responses that can be traced in the histories of the Indian medical systems. Unfortunately, the situation more resembles a Huntingtonion 'clash of civilisations', in which the AYUSH systems are inextricably linked to a particular cultural identity and are pitted against each other rather than brought into a conversation.

Expert versus folk knowledge
In today's world of formal professionals emerging from recognized courses validated by expert committees, there exists the dichotomy that there are well-known practitioners without degrees whom the formal institutions will not employ. This builds a hierarchy between the expert and non-expert (or folk practitioners), since *all* the technical decision makers are degree holders and they generally view all others, especially the folk practitioners, with contempt and insist that the folk healers' knowledge has already been codified in the texts. However, a count of the plants used for medicinal purposes shows that the Ayurvedic texts cite some 400, while the documentation of folk practice and ethno-botany reveals about 6000 species in use across the country! (fig. 2)

So, in this version of the biomedicine-AYUSH hierarchy the two stand together as the 'expert systems', opposite the folk practitioners and home remedies: the collectively-labelled 'local health traditions' (LHT). The public system has taken note of the value of the LHT in its recent formulation of the National Rural Health Mission and the Indian Public Health

Fig. 1 (above): Patients standing in line for a consultation with a popular folk healer.

Standards. Yet, none of these plans or standards have been implemented by any state. The expert versus folk dichotomy has in fact been reinforced as a result of mimicking the modern system's notion of standards, and the folk are often thought of as quacks. Even if AYUSH is to learn from the modern system, it should recognise the folk practitioners as the 'paramedics' of AYUSH, as they are often the first contact point for patients and the messengers of the AYUSH worldview. While some AYUSH practitioners do see the value of LHT as proponents of the epistemology of systems other than modern medicine, the official public system by and large only attempts to minimize their role. A Task Force on Traditional Health Practices and Practitioners, set up by the Department of AYUSH in 2009, did give its recommendations for an organized effort to validate and certify the local traditional health practitioners, but no action has been taken in this regard. This is despite there being an excellent model for undertaking the accreditation and certification of the 'learned knowledge', already piloted by the public Indira Gandhi National Open University through its Centre for Traditional Knowledge Systems in collaboration with the Quality Council of India and the Foundation for Revitalisation of Local Health Traditions, and financially supported by the Department of AYUSH. A large number of non-governmental organizations have documented and validated the LHT in communities they work with.

Parallel growth or incorporation into modern medicine?
'Integration' of systems has meant that the curriculum for AYUSH graduates mandated by the Central Council for Indian Medicine includes modern anatomy, physiology and pharmacology; a one-way integration of knowledge that, given the prevailing power equations, undermines the view of the body, the human being and human health as espoused, in somewhat different ways, by Ayurveda, Siddha, Unani and Yoga. Using traditional knowledge of medicinal plants to develop new pharmaceutical products has been the only form of integration of AYUSH by western biomedicine. This amounts to commercial exploitation without giving credence to the knowledge system.

Within the public system, integration has been in the form of co-location of services of AYUSH in biomedical health centres and hospitals. This results in AYUSH services being brought under one roof with biomedicine, thereby giving patients a choice. It also provides rural health centres with a 'doctor', when biomedical physicians do not want to work in rural areas. The latter has been the major source of interest among health administrators in what is officially labelled by the National Rural Health Mission (NRHM) as 'mainstreaming AYUSH'. Those who see the value of the knowledge and practice of these systems, view co-location as an opportunity for interaction between medical knowledge systems. AYUSH facilities have been co-located in 468 (76%) District Hospitals, 2483 (52%) Community Health Centres and 8520 (36%) Primary Health Centres. However, again, given the power equation, AYUSH doctors are under the charge of biomedical doctors and can generally not become in-charge of the health centre, whatever their seniority in service.

Ample studies show that people use various medical systems and practitioners, based on their collective experiences over decades. For instance, people use home remedies as a first resort for common ailments such as diarrhoea and fevers, for antenatal and postnatal health problems, etc. It has been suggested that the public health system should evolve Standard Treatment Guidelines (STG): starting at home remedies, then a move to a folk healer, then to an AYUSH practitioner or a modern medicine paramedic –all of which are at the primary level of care. The STG should indicate whether patients need higher level diagnostic testing, and whether biomedical doctors and AYUSH specialists at the secondary level should be consulted, and finally whether patients need to go to the tertiary care of any of the medical systems that are available. This can potentially provide rational guidelines to practitioners of all systems as well as to the users. There is some documentation, but even more anecdotal evidence, that a large segment of the practitioners of biomedicine in India do indeed combine home remedies and other forms of 'traditional medicine' in their own prescriptions to patients, or informally refer them to AYUSH practitioners or even folk healers. It is also well known that they themselves use AYUSH/folk healers for many of their own and family members' illnesses. In a survey conducted in 2008-09 in the public services, 77% of biomedical doctors said that they saw some value in the other systems and 55% even acknowledged prescribing or referring patients.[2] However, the advice is rarely put on paper, since there is no official legitimacy for the cross-referral. There is, in fact, a legal injunction against cross-practice (a practitioner of one system prescribing another). Nevertheless, the NRHM does expect AYUSH doctors in the co-located health centres to prescribe biomedical regimens designed by specific national disease control programs, such as those against malaria, leprosy, anaemia, vitamin A deficiency, and for immunisations.

Obviously this is an opportunistic and arbitrary use of AYUSH practitioners; mainstreaming them as practising physicians but not fully valuing their knowledge systems. Two states have even created legislation to enable AYUSH practitioners to prescribe modern medicine for all problems at primary and secondary levels. No wonder that the advocates of the AYUSH systems are wary of the ideas of 'integration' and 'mainstreaming'. What we should be looking for is a way to generate an 'interactive pluralism'. How can each system learn from a dialogue with the others? How can they be combined for maximum benefit to patients and population health?

The commercialisation of AYUSH, and LHT as non-commercial healthcare
Traditionally, Ayurveda, Unani and Siddha (AUS) used medicines made by the practitioners; but in an attempt to ensure the survival of these systems, the production and marketing of their medicines now take place on a commercial scale. This 'pharmaceuticalisation' of AUS has changed the character of the systems. The Department of AYUSH seems to be greatly influenced as well; its major focus of activities is now on promoting the manufacturing and international promotion of AUS medicines. The National Medicinal Plants Board, under the Department of AYUSH, has also become more interested in supplying the industry than the local users. A 2008-09 study among public institutions in 18 states found that none of the AYUSH doctors used raw herbs or prepared their own medicines anymore.[3]

Only LHT still represent the non-commercial dimension of traditional medicines in present times. The Department of AYUSH gladly supports LHT projects only if they are likely to uncover some practices not known in the AYUSH texts, which could be validated and added to the existing texts and AUS pharmaceuticals. However, the promotion of local uses, or people's empowerment through the legitimisation of their knowledge, is generally not considered a meaningful objective. The Indian Public Health Standards has determined that all Health sub-Centres (ideally available in villages with a population of 5000 and run by paramedics) and Primary Health Centres (PHC; ideally available for a rural population of 30,000 and run by 1 or 2 doctors, including one from AYUSH) should have herbal gardens in their compounds. With the AYUSH doctor co-located at the PHC, this could be a pioneering step towards linking LHT with AYUSH, and re-legitimising the use of local herbal medicine. (fig. 3) Unfortunately, the implementation of this activity had not yet begun in any of the 18 states surveyed in 2008-09.

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Interactive pluralism: the possibilities
There is an emerging body of research that attempts to bring the knowledge systems together in terms of their principles. For instance, there is the study by a public institution that has attempted to verify whether the concept of individual *prakriti,* defined by Ayurveda (loosely translated as individual 'constitution'), correlates with an individual's genomic markers.[4] A study undertaken by a private trust institution, together with the United States National Institute of Health, pioneered a clinical trial on modern lines without compromising the principles of Ayurveda.[5] The Central Council for Research in Ayurvedic Sciences has undertaken several clinical studies, but they do not stand up to the scrutiny of modern trials; the council needs to strengthen its methodology based on what it learned from the aforementioned study.

Documenting the use of more than one system by practitioners of modern and traditional medicine and learning from their practices can be revealing. In fact, if we can revive the composite culture that existed in the past when, as documented for Punjab, the Hindu upper caste and Sikhs practised Unani as much as the Muslim Hakims, and the Sikhs translated Ayurveda and Unani texts into Gurmukhi so that the less scholarly could read them.[6] Ayurvedic texts were translated from Sanskrit to Arabic or Persian (the language of the Muslim courts) and Unani texts from Arabic to Sanskrit.

The Tibbia College, started in 1916 in Delhi by Hakim Ajmal Khan, combined the teaching of Ayurveda and Unani. This activity would rejuvenate the AYUSH systems, their teaching and the confidence of their practitioners. It would also provide the world with a different vision of what health-care could mean to human civilization even in contemporary times, contributing to democratic pluralism and sustainable healthcare. The commercialization of healthcare hinders a perspective on medicine as a non-commercial service that can be non-iatrogenic, of good quality and affordable for all. Layperson worldviews, the ethical codes of LHT and principles of AYUSH provide resources for that imagination.[7] If Indian public health picks up this challenge it will move towards right-ing many historical wrongs and healing the physical, social and cultural iatrogenesis of contemporary health service systems.

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Notes

1 This paper traces the growth of services of diverse systems of health and healing within Indian public health, drawing upon findings of a study conducted by the author across eighteen states (provinces) in 2008-09.

2 Priya, R. & A.S. Shweta. 2010. *Status and role of AYUSH services and use of Local Health Traditions under the NRHM: a health systems study across 18 states.* National Health Systems Resource Centre (http://tinyurl.com/lnqorzt)
3 ibid.
4 Prasher, B., et al. 2008. 'Whole genome expression and biochemical correlates of extreme constitutional types defined in Ayurveda', *Journal of Translational Medicine* 6:48 (http://tinyurl.com/n7mt9sz)
5 Furst, D.E., et al. 2011. 'Double-blind, randomized, controlled, pilot study comparing classical ayurvedic medicine, metho-trexate, and their combination in rheumatoid arthritis', *Journal of Clinical Rheumatology* 17(4):185-192.
6 Sivaramakrishnan, K. 2006. *Old Potions, New Bottles: Recasting Indigenous Medicine in Colonial Punjab (1850-1945).* Hyderabad: Orient Longman.
7 Priya, R. 2012. 'AYUSH and Public Health: Democratic Pluralism and the Quality of Health Services', in Sujatha, V. & L. Abraham (eds.) *Medical Pluralism in Contemporary India,* Orient Blackswan, pp.103-129.

Fig. 2 (below left): Folk healer who is a farmer too.

Fig. 3 (below right): AYUSH section in a Public Health Center.