The switch from faith to reason, however, did not happen as a sudden disruptive event. It was a gradual transition spread over several centuries starting circa 8th century BCE [3]. It achieved a marked finality by 1st century CE. Such a gradual transition, though not unremarkable for the paradigm-shift it takes towards rationality, must be expected to retain certain vestiges of an earlier world view. Despite being overwhelmingly reason-based in their orientation, the works of Charaka and Sushruta thus contain isolated references to faith-based practices. Alongside lengthy descriptions of drugs, diets, and lifestyle measures to counter diseases, passing references to religious rituals also find a place in these texts.

The progress towards evidence-based reasoning that the Ayurveda pioneers achieved was sustained for about a millennium. Thereafter, starting roughly around the 10th century CE, this medical system suffered a long phase of intellectual and experimental stagnation. At the dawn of the 20th century, the spirit of Swadeshi coupled with the influence of modern science was expected to revitalise Ayurveda's rational mores. But that was not to be. A wrong understanding of Indian philosophy by thought-leaders in the field led to an unwitting replacement of the rational with the mystical [4]. *Shabda-vyapashraya* (dependence on authority) replaced *Yukti-vyapashraya* (dependence on reason).

The tyranny of *Shabda-vyapashraya* seems to continue unabated. The recent move by the National Commission for Indian System of Medicine (NCISM) to introduce "Medical Astrology" as an elective for Ayurveda students is a case in point [5]. NCISM, the apex body with an explicit mandate to "encourage medical professionals to adopt the latest medical research in their work," has ironically enrolled over 700 students for its online course on medical astrology. The course description on its official website (https://ncismelectives.org/) reads:

> *"It's believed that during olden days Astrology was a flourishing branch of studies. In history there are many recorded incidents of accurate prediction of future events. Medical Astrology is subject which discusses one's likely diseases based on birth charts and planetary positions. In the subject some real life case studies have been included to re-emphasize the topics covered… (sic).*
>
> *By studying this subject interested students will be able to correlate patient's sickness with Astrological conditions and also prescribe parallel alternate treatment. Interested students can also pursue the subject on their own."*[5]

Sporadic references to the usefulness of astrology in prognosticating and managing illnesses are indeed found in the Ayurveda classics. But, as M S Valiathan notes, "the use of mantras was infrequent, and astrology played a minimal, if not nil, role" in Ayurveda's approach to the practice of medicine [6].

Thanks to the biased perspectives of politically powerful lobbies, truth and scholarship have little bargaining power. Vestiges of faith-based practices are now again seeking to take centre stage in Ayurveda. Lobbyists for such practices do not realise that they are only insulting the epistemological strengths of this ancient science.

That astrology does not work has been repeatedly shown in numerous studies — both theoretical and experimental [7]. Years ago, when the University Grants Commission issued a missive that "there is an urgent need to rejuvenate the science of Vedic astrology," there was a long debate on the issue in *Current Science*. Contributing to the debate, Yash Pal sarcastically wrote: "It is suggested that doctors will gain through the study of Vedic astrology. Some of them might not be able to spare the time to get a PhD in this field, but uncertainties about diagnosis and treatment of disease would be removed even after a certificate course because we would know what Time has in store for the patient." [8]

With charlatanry deciding what university students must learn, one wonders what Time has in store for Ayurveda.

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Health Insurance: Drawing inspiration from chit funds to pool health risks efficiently

Published online first on January 20, 2023. DOI: 10.20529/IJME.2023.009

Keywords: *out-of-pocket expenses, catastrophic health expenditure, Rashtriya Swastha Bhima Yojana, ROSCA, adverse selection, co-payments*

The provision of government-funded public health services in India is grossly inadequate and 48.2% of "total health expenditure" for India is paid "out of pocket" [1]. When the total health expenditure in a household exceeds 10% of the

annual income, it is considered catastrophic health expenditure (CHE) [2].

It is estimated that 3.3% of Indians are impoverished by CHE every year [3]. Hence, one can easily understand the allure of health insurance. Insurance companies pool the risks and make payments more predictable for individuals.

The problems with health insurance

The cost of insurance is relatively high. In India, for a 40-year-old healthy individual, insurance cover of Rs 500,000 costs approximately Rs 13,000/annum [4]. The individual insured must also reckon with the deductibles and co-pays mentioned in the small print.

People at greater risk of ill health tend to seek insurance coverage and this adverse selection inflates the insurance premiums for everyone. Also, insured people are insensitive to the cost and value of healthcare [5]. When their policy is about to expire, people who haven't made any claims are tempted to recover their expenditure by getting needless investigations and "Executive Health Check-ups". Hospitals often undertake unnecessary investigations and procedures because a third party is footing the bills. A World Bank report on state-sponsored insurance schemes details how even programmes like the Rashtriya Swasthya Bima Yojana resulted in "unnecessary healthcare" in the form of needless surgeries for removal of the uterus and ovaries and appendectomies [6]. All these factors contribute to inflating the annual premiums, which tripled for individuals between 2010 and 2015 [7].

Ultimately, hospitals that charge with impunity and the insurance companies that build their profit margins into the premium benefit most from insurance. The health risks of being subjected to unnecessary procedures are borne by the insured individual.

Two conclusions follow. There is a real spectre of CHE from which the public need to be shielded, but health insurance can do more harm than good, due to its inherent inefficiencies.

Chit-fund-inspired risk pooling

The solution to risk-pooling can take inspiration from the Chit Fund — the rotating saving and credit association (ROSCA) scheme that has evolved in India and was legislated under the Chit Fund Act of 1982 [8]. The scheme requires participants to contribute periodically to the chit fund, for a duration depending on the number of investors. The collected amount is auctioned among group members, every time it is collected.

In the context of health coverage, a group of individuals could contribute each month an amount equal to the monthly instalment for a health insurance cover of say Rs 500,000. This can be accumulated in a joint savings account. Anyone who falls ill can count on the fund to defray their expenses up to the limit covered. If a person does not claim for illness, his/her contributions at the end of the term accrue to them with interest, as in a savings scheme. This removes the perverse incentive to make unnecessary health insurance claims. The person is likely to seek the best cost-benefit options in both the public and private healthcare sectors, and this enables market forces and competition to drive down costs and promote improvements in services.

Need for life insurance

Chit funds are usually drawn to cover expenses in business or for domestic needs, and the repayment capacity of the member is not impeded by the activity for which the chit money is withdrawn. In the case of ill health, there is the risk that illness may impede the borrower's ability to pay future subscriptions. There is also the risk of death following the illness. The scheme must consider this and it may take some form of unemployment/life insurance for its members.

Employer run scheme

Employers may run such schemes with automatic deductions being authorised by the employees. This reduces the risk of a payment default. Employers who pay the group health insurance premiums of their employees can instead invest in this scheme. Employees who maintain good health can be incentivised by being paid a bonus, with the health insurance money accumulated in their account, when they leave the establishment. All this can be afforded by the management at little or no extra cost.

Conclusion

Private health insurance often does more harm than good. This modest proposal looks to mitigate the risks of CHE through small self-help groups modelled on the Chit Fund, which evolved and thrives in India.

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Reform of medical practice regulation in India is 'half-done'

Published online first on February 9, 2023. DOI: 10.20529/IJME.2023.013

Keywords: *medical education, regulation, governance, reform, health policy*

I read the editorial "Ethics regulation by National Medical Commission: No reason for hope" by Amar Jesani with keen interest [1]. The article raises many pertinent issues which need urgent policy attention. Institutions and governance for regulating medical education and practice in India carry a significant colonial legacy of British rule [2]. No major reform was carried out to change the status till 2019. The recent reform in apex medical regulatory institutions, replacing the erstwhile Medical Council of India (MCI) with National Medical Commission (NMC), was a result of long-term demand. Several previous attempts to reform MCI had failed, despite recommendations by various committees, including the high level parliamentary standing committee [3].

Expectations and challenges

This long-awaited reform gave rise to a higher expectation, but the delay in creation and commencement of the functioning of NMC caused confusion. This also allowed an extended term to the Board of Governors (BoG) of the MCI, which was running affairs in the interim. The BoG was a highly centralised body which took many far-reaching policy decisions without the required deliberation [3]. By the time NMC was constituted and started functioning in September 2020, the challenge of the ongoing Covid-19 pandemic and disruption in medical education pushed NMC to start functioning in a similar manner to the erstwhile MCI. As pointed out by Jesani, even the appointments of presidents and members of different autonomous boards took an exceptionally long time. Jesani also highlighted the contradiction in the claim of the NMC being diverse, as the "Ethics and Medical Registration Board" is composed of only medical doctors [1]. A look at the composition of other boards also indicates similar gaps. For example, in the "Undergraduate Board", out of four members, only one is from a broad speciality department with direct engagement in undergraduate teaching. The other three members are from super-speciality departments or super-speciality centres [4].

Regarding ethics in medical regulation by the NMC, Jesani raised important questions on intent and implementation challenges. The implementation of ethics regulation and professional conduct remain with the respective State Medical Councils (SMC). NMC is just an appellate body for ethical issues. Therefore, it is important to investigate the status and functioning of SMCs.

Composition of State Medical Councils and implications

A state-level legislative Act governs the formation of an SMC in any state. The provisions of these Acts and the criteria for appointing the president and members are quite heterogeneous across states. Most state-level SMC Acts were enacted long ago, and many of them can be traced back to colonial era legislations. These SMCs continue to be controlled by doctors or serving bureaucrats of the health department in most states. There is hardly any representation for a non-medical person or civil society in SMCs. To understand this more systematically, I conducted a rapid online search of the official SMC website, and websites with information on SMC members in July 2022. Information on the composition of SMC in 21 large states and one Union Territory (UT) was extracted (see note for the list of states and UT)*. Data were compiled and analysed to ascertain the professional background and affiliations of the presidents of these 22 SMCs.

Overall, the findings suggest continuing dominance of a "medical or bureaucratic elite" in leadership positions. Out of 22 SMCs, 19 were headed by a medical doctor as president, while three SMC were led by serving bureaucrats of the Indian Administrative Services (IAS). Among 19 doctors heading SMCs, nine work in the public sector, either in medical college or state government services, and other nine work in private sectors such as corporate hospital, private medical colleges, or private practice. Three SMCs were led by IAS officers posted as director of health. The affiliation of one doctor could not be ascertained. A few SMC presidents are representatives of the Indian Medical Association (IMA), a professional association of medical doctors in India. One doctor leading a SMC is also a Member of the Legislative Assembly (MLA) in the state. The process of selection of president and members of SMCs is diverse. In some states, the SMC president and members are either selected or nominated, while some SMCs have a mix of nominated and elected members. There is no clarity on the criteria for selecting members and the proceedings and implementation of ethical codes. Most SMC websites do not have information on the number of ethics-related complaints received and their status.