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GAPS IN THE NATIONAL ACCREDITATION STANDARDS

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Gaps in the National Accreditation Standards

As a way to communicate the quality of care, hospitals in India can voluntarily obtain accreditation, granted by the National Accreditation Board for Hospitals and Healthcare (NABH). Currently, the standards mandated by NABH are the same across all specialties. This paper analyzes whether the quality standards required by NABH are appropriate for eye care, given the high demand for such services coupled with the inadequate infrastructure and incomes in the country.

After a review of the various standards required by NABH and learning more about the processes at Aravind Eye Care System (AECS), we have identified a few specific ones that AECS finds onerous. Based on our analysis it seems that these standards while important for other specialties may not be critical for eye care. However mandating those standards for eye care would increase the cost of the care without any significant impact on the outcomes. It may also lead to fewer patients being serviced, which is detrimental for a county like India, given the low level of health care infrastructure and delivery. The AECS approach seems to be more holistic when one factors in the equity of care. It seems that NABH in discussion with AECS could arrive at optimum set of requirements for eye care that would be easy to implement, remove inefficiencies, lower the costs while improving quality and also cater to a larger number of patients. This is a win-win outcome that our research has identified which may be applicable to other specialties also.

**Keywords:** Health care policy, Accreditation policy, Business and impact on society, Alternate models for policy development, Strategic and sustainable policy design

INTRODUCTION

Healthcare is a subject of great interest. The World Health Report (2008) notes that while people are healthier, wealthier and living longer, the progress in healthcare has been unequal with some counties lagging back or losing ground with growing inequality in the availability of affordable healthcare. Despite the worldwide wish that everyone should have access to good healthcare at affordable prices, the issues and concerns faced by different nations are different because the issues of health care unfolded in different ways. India and many developing nations are concerned with issues such as health education, nutrition, sanitation and preventive care as well as provision of quality healthcare that is affordable and equitable.

In India, healthcare is one of the largest service sectors with medical services provided by the government, either central or state. It is inadequate despite the large pool of well-qualified
doctors. A key issue is the significant differential in the level and quality of medical services available in the urban, semi-rural and rural areas. Given the noticeable shortage of medical personnel and resources, the private sector has emerged as a large player and its share in healthcare delivery is expected to increase from 66 percent in 2005 to 81 percent by 2015. The forecast is that the private sector would account for 74 percent of the hospitals in 2017 (India Brand Equity Foundation, accessed on August 2014). Quality of care provided also varies. Specifically, given the poor quality of service, the lack of hygiene and customer focus, patients in India seek ways to learn more about a hospital or the healthcare delivery center. Under these conditions, voluntary accreditation emerges as a way for hospitals to differentiate themselves and communicate their true quality of service credibly.

BACKGROUND

National Accreditation Board for Hospitals and Healthcare Providers (NABH) was set up in 2006 by the Quality Council of India (QCI) to develop appropriate metric and provide accreditation service to healthcare delivery organizations in the country. It has functional and operational autonomy and its board consists of various stakeholders, encompassing those from industry, government and consumers. It has tried to develop standards that are patient-focused wherein an institution has to complete a set of tasks or successfully implement established standards. In the case of healthcare providers, say, hospitals accreditation involves meeting minimum quality standardsmandated by NABH. Although accreditation of hospitals is mandatory in the west it is as yet voluntary in India. As of August 2014, NABH has around 435 hospitals at various stages of the accreditation process and about 229 hospitals that are fully accredited. A cursory look at the list of hospitals that have been accredited or are seeking accreditations reveals that some hospitals that could have got accreditation, based on their reputation and level of care provided are not doing so. This begs the question why? A model that provides a plausible explanation has been developed in Ladha (2013). Currently, the standards mandated by NABH are the same across all specialties and types of care. This paper analyzes whether the quality standards required by NABH are appropriate for eye care, given the high demand for such services coupled with the inadequate infrastructure and incomes in the country.

AECS was established in 1976 and over the years it has evolved into one of the largest eye care
systems in the world with hospitals in several locations, primarily in southern India, interlinked via technology providing state-of-the-art primary and specialized eye care. Surgeons at AECS perform about 2000 operations per year with the national average of 250 surgeries per year (Bhandari et al, 2008) and 125 surgeries per year in the USA. What is even more noteworthy is that the low cost and high volume of care provided is at the highest quality. Infection rate, a key metric in evaluating the quality of care is the lowest at AECS as compared to other institutions in the world (Tidd Joe et al, 2005). AECS has effective processes and policies in place and an addable feedback system where the patient records are examined and analyzed for success rate, causes for partial success and patient experience. AECS has developed its own standards and policies which helps ensure that its quality of care is the best and delivered in the most efficient manner. It continually seeks innovative cost efficient methods for process improvements. It seems that AECS has taken a holistic approach by considering various trade-offs to achieve equity and optimal cost-quality.

AECS is in discussions with NABH for obtaining accreditation. It finds some of the NABH requirements unnecessary and would like those to be modified, especially as applicable to eye care in order to achieve equity in care and also improve the quality of care, two of the metrics considered universally important in the case of healthcare. NABH with the standards that it has mandated is moving towards a homogenous model of healthcare. The study of AECS is to determine if an alternate model (standards and processes) of eye care is viable especially in the Indian context given the current demand, infrastructure and level of development in the country.

Case studies are usually conducted to obtain information based on a theory to analyze a situation or can also help explain why or how something happens or happened (Yin 1994). As noted in Eisenhardt and Graebner (2007), “Theoretical sampling of single case is straightforward. They are chosen because they are unusually revelatory, extreme exemplars, or opportunities for unusual research access.” The choice of AECS as single case to be studied was motivated by the theory that not all standards chosen by NABH are relevant in all contexts in the Indian setting, especially for certain specialty care (Ladha 2013). It is an outlier based on the fact that while it could probably obtain the NABH certification with some changes to its current processes, it has chosen not to do so. In other words, in its assessment the benefits of accreditation are lesser than
the cost of obtaining it. Specifically, AECS believes that if it adheres to all NABH standards it may not be able to operate as efficiently or cost effectively. Thus, AECS has all the necessary elements to be an ideal single case study to shed light on the accreditation standards and processes.

A key aspect of the case research was to observe, discuss, document, and understand the cataract eye care processes to identify the possible increase in cost in terms of number of patients not being provided the necessary treatment or service, decrease in equity of care, and possible increase in the quality of care due to fewer clinical errors. A review of key NABH standards versus current practices at AECS is to possibly identify a viable alternate model for eye care.

RESEARCH DESIGN: Study of AECS and Review of NABH Standards

As a part of understanding AECS’s concerns and issues I had open-ended discussion with doctors, administrators, support staff, referred to as Mid-Level Ophthalmic Personnel (MLOP), and personnel in charge of quality initiatives. Despite the discussions being open-ended, I was aware of the questions and topics that had to be covered as part of my research. I also observed and documented various processes, the actual surgery and shadowed a few patients and sought their experience and opinion. I also observed the flow of patients in real time, how the queue is tracked and how the feedback is provided immediately for improvements, minimizing the patient’s waiting time, and enhancing their experience.

To get a holistic picture, I visited another eye care provider who had obtained the NABH certification. The purpose was not to compare the processes at AECS and the other provider but to get a broad idea of the image of AECS as perceived by a possible competitor and also other issues pertaining to eye care that may be useful in my examination of the NABH standards. I met with two NABH certified evaluators and consultants to gain a better understanding of the issues pertaining to accreditation from their perspective, based on their extensive experience.

A review of the NABH standards led to the identification of four main issues that AECS believes would increase the cost but have no positive bearing on the patient experience, safety or care. Specifically, these processes might not decrease the clinical outcome or infection rate which is
already the lowest at AECS as compared to their counterparts both in India and across the world. On the other hand instituting these processes might lead to costs increasing both in monetary terms and in terms of fewer patients being treated, leading to equity of care being compromised.

AECS has identified a few standards mandated by NABH to be important, having a low implementation cost with high impact on outcomes, especially in terms of customer safety. While AECS has its own norms for tracking and reporting, they believe the NABH standards are more robust and have already adopted it as part of their daily functioning.

The Four Key Issues
AECS would like NABH to reconsider, specifically for eye care the following four standards: (1) Reducing the ratio of nurse to inpatient requirement (2) Allowing more than one table in the operating theatre (OT) (3) Recognizing the Mid-Level Ophthalmic Personnel (MLOP) as nurses or adequate support staff (4) Developing treatment-specific and care-specific standards.

Reducing the ratio of nurse to inpatient requirement
While most cataract surgeries can be done on an outpatient basis, AECS has a few patients who stay overnight either before the surgery or stay two nights, one before and one after the surgery. Many of AECS patients come from rural area necessitating long travel. Several of them might be below the average economic potential. Thus, if AECS did not provide them with overnight stay option the patient might have had to make alternate arrangements for the same. For several of the patients the cost of overnight stay might be an added burden. The service provided by AECS is to ensure that from the patients’ perspective, cost is not the deterrent to undergoing the surgery. In the overnight stay facility AECS provides adequate support staff and care with the necessary hygiene standards. Reducing the nurse to inpatient ratio would contain the cost of such service with no negative impact on the customer care and experience. AECS monitors and tracks their customer feedback to ensure that the customer experience is positive. A minimum standard for overnight stay in the case of several specialties might be important but the same standard when applied to eye care, primarily an out-patient service would not be beneficial. In India where blindness due to cataract is widespread, this imposition by NABH would reduce the extra service provided by AECS or would increase the cost of providing the same service.
Allowing more than one table in the operating theatre (OT)

By having more than one table in the OT AECS is trying to achieve cost and operational efficiencies. While it is important to have only a single table in the operating theatre for several specialty surgeries, eye care, especially basic voluntary cataract surgery is different. In a cataract surgery there is no fluid or infection that can be considered hazardous. Having more than one bed in the OT allows for sharing of expensive state of the art equipment and reduces per patient surgery cost. In the case of AECS, as the doctor operates on one bed the next one is being readied and prepared by the MLOP for the next operation. This optimizes the doctor’s time between operations, which is one of the critical inputs in the overall cost of each surgery. AECS has arrived at this model after an extensive costing analysis of the entire procedure. With two beds in the OT the doctor turns around and proceeds with one surgery after another. Under the set up devised by AECS not only is cost optimized but it has improved productivity and efficiency. In some ways the process design delivers quality of care both in terms of the clinical outcomes and in terms of equity. Specifically, the high productivity has not been achieved at the cost of decreased quality. For a country like India, where 22% is below the poverty line (Press Notes on Poverty Estimates 2011-2012) and many do not have access to the necessary medical care, it is important for NABH to consider the quality of care along with the number of people having access to the care. Particularly, the standards instituted must suit the country’s needs.

Recognizing the MLOP as nurses or adequate support staff

MLOPs provide all the support function at AECS. They undergo extensive residential training encompassing, hygiene, eye-related care, science behind the operation, knowledge and skill pertaining to lens, refractions, and key aspects of customer centric care. Given the shortage of nursing staff AECS has addressed the problem by recruiting local talent and training them appropriately. The training module developed by AECS has been accredited by agencies overseas, is specific for eye care than a general training program for nurses and is considered to be one of the best. AECS would like NABH to recognize the MLOPs as nurse equivalents especially for eye care. One of the senior doctors who is also in a key administrative role at AECS emphasized that their high level of productivity in terms of number of operations performed is achieved due their system orientation in tracking every process, every action, consistent and immediate feedback with review and discussions on the merits and demerits as
necessary. This thinking is ingrained in the MLOPs over the two year training period leading to increased operational efficiency.

Currently, NABH does not recognize the MLOPs as being part of the nurse cadre. With NABH seeking to promote medical tourism its goal would probably be to provide care with western standards in view. From AECS’s perspective, adhering to NABH standards would increase cost in terms of expenses and also in terms of number of patients serviced. They believe that there is no compensating reduction in infection rate or improved patient experience.

At AECS, prior to the surgery, the MLOP in charge chooses the type of injection depending on her assessment of the patient and the requirement. Shah (2010) based on his postal survey of surgeons in the UK, Singapore and USA, documents that the choice of medication for the surgery seems to be country specific. He also notes that for the same patient different surgeons may opt for different techniques. The MLOPs at AECS have been trained to identify the patient need and choose the medication accordingly.

AECS tele-medicine centers are manned by MLOPs with broad training to provide service to individuals who may not have the time to come to the hospital and also for those who need basic tests and preventive care. The MLOPs consult with the doctor via satellite before providing any medication. I visited one center and observed a patient being serviced. The MLOPs in these locations have been trained to work with maps to understand the location of their clientele and to determine possible expected volume. I saw a geo-coded map of the region on which the MLOP had overlaid the population. The center also had a data base of those patients visiting them, the frequency, the care provided, the follow-up needed and other pertinent details. This helps the center in proactively seeking those patients needing attention and additional care. Given the shortage of nurses and medical services in India, NABH might need to reconsider if MLOPs can be recognized as adequate support staff especially for eye care.

**Developing treatment-specific and care-specific standards**

By studying the AECS approach it is clear that the standards when set too high are detrimental in leading to the desired outcome. The philosophy of one size fits all is not tenable and sustainable
in the long run. From an analysis of the AECS situation it is clear that at least for eye care having single beds in the operating theatre and having nurses with general training need not be an imperative. Possibly NABH could have a set of standards for the registration of the patient, what must be communicated to the patient, how to obtain consent for a procedure and general experience related specifics. Based on the type of treatment, another set of standards may need to be redesigned with inputs from various stakeholders, especially the doctors, the NABH certified evaluators and possibly health care professionals. While the western experience would be informative, one has to bear in mind that for a country like India equity of care is as important as being patient centric and looking at clinical outcomes. The standard implemented has to balance the various competing metrics.

**NABH standards adopted at AECS**

AECS has identified and adopted a few process related, and a few monitoring related standards in order to better their own performance. The process related ones are specific to incident reporting, patient identification, safe medication, improved documentation, bio-medical waste management and patient discharge summary. The monitoring related ones pertain to medical audit and microbiological safety.

Incident reporting pertains to early identification of near misses or avoidable errors and streamlining the work flow to ensure that the issue is addressed and periodically tracked for continuous improvements. AECS has instituted incident reporting process and tracks it on a monthly basis across various hospitals, departments, level of error and other metrics of relevance. As part of ensuring that the process is followed they have provided the requisite training to all the staff, administrators, and doctors. They have designated one person as the key contact to identify, track and be responsible for the changes and to communicate the same. The training sessions and monthly meetings are to educate the staff and provide direction on safety measures besides alleviating their concerns of being reprimanded.

Improved patient identification implies having the patient name and number at all stages of the process at AECS. Specifically, the patient name and number tag has to be noted at registration and is maintained on the registration form, on the wrist band, in the examination report, in the
eye exam report, in the physician’s report, when the medication is dispensed, during labeling of any specimen, blood component transfusion, in the surgery report, and in the discharge form to name a few. The patient identification is checked at various points when a service is provided and when medication is administered. Any oversight is noted down and discussed in the next monthly meeting for future process improvements. The MLOPs and doctors have to ensure the proper identification for all types of patients, the eye marked for the surgery, the medication details, the type of lens and injection administered.

All medication has to be checked for date of expiry, and the date of opening. Eye drops open for more than a week, bottles with leakage, no cap, discoloration and precipitation are to be disposed off immediately with a noting for future tracking purposes. No left over medication should be transferred to the new bottle and the tips of bottles have to be kept clean and untouched. The MLOPs who administer the drops and basic medication are trained to never let the tip of the bottle touch the eye, eyelids, skin or eyelashes of the patient. The MLOP is trained to confirm the medication at various stages of the operation and process. The medicine in the pharmacy has to be in alphabetical order. Medicines with similar sounding names have to be highlighted and placed in an easily recognizable manner. Medication has to be stored in a temperature controlled environment with a thermometer and a monitoring chart updated thrice a day.

The improved documentation is to ensure that there are sufficient checks and reviews at various stages such that an error can be identified and rectified immediately. Bio-medical waste management is color coded as per NABH requirement and AECS has entered into contract with waste disposal companies for appropriate disposal techniques. Bins are appropriately placed and the training of the staff emphasizes, “let the waste of the ‘sick’ not contaminate the lives of the ‘healthy’.” Discharge summary sheet is standardized with the name of the patient, gender, age, reason for the visit, procedure performed, post-operative care provided, condition at the time of discharge, post-discharge care details, follow-up instructions and when and how to obtain emergency care. Other safety measures adopted pertain to ensuring rubber mats in slippery areas, wheel chair availability, safety belts in wheel chairs and stretchers, to name a few.
Patient feedback is analyzed regularly with one person in charge of monitoring the feedback every day. Part of the monitoring is to ensure that necessary changes have been instituted, and to review patient suggestions and complaints with a team on a monthly basis. There is a dedicated staff member for the audit of medical records on a daily basis. Around 5 percent to 10 percent of the completed and closed case sheets have to be audited and any observed shortcomings have to be brought up for discussion and process enhancements. The staff will be updated immediately on any incomplete or incorrect process and senior management will get a monthly summary of the audit findings, improvements and possible need for process change. There is a standardized form for the audit process making the review of different cases broad and similar.

DISCUSSION

The aim of this research was to garner a better understanding of accreditation related trade-off between cost (monetary and equity) and quality in the Indian context. AECS was chosen as the case to be studied because while it could obtain the NABH accreditation given its reputation and performance it is still in discussion with NABH as it considers some of the mandated standards as unnecessary particularly in the eye care domain. Thus AECS is an outlier and likely to possess policy-relevant or theory-relevant information. Some of the specific issues examined in implementing the NABH standards are, the possible increase in cost, the increase in quality, the role of the support staff and a review of key specific standards appropriate to eye care.

After observing the process flow at AECS and discussing with several personnel it seems that having one table in the OT will increase cost in terms of number operations undertaken. It is difficult to arrive at a single number except to consider average operations done at other institutions and AECS as provided in the earlier in the paper. Given the level of need for cataract surgery in India even a reduction in one operation is not desirable. With all their efficiency and reach AECS estimates that they have probably provide service to about 7% of the population that needs eye care related services (discussion with personnel). It also seems that given the low infection rate at AECS, increasing the cost of the surgery by having one table in the OT would not lead to a significant reduction in the clinical outcomes.
Another observation is that NABH while being patient-centric in its approach to standard setting needs to reevaluate the same given the gap in the healthcare services in India. It may be important for NABH to continue working with hospitals to make them more aware of patient needs and to help them institute processes to identify and manage unexpected patient-related errors speedily. It may be essential for NABH to publicize the need for hygiene and insist on infection rates to be lower than a certain level as part of the accreditation process. Talbot et. al. (2013) document that based on their study, infection rates declined when hand hygiene practice was followed by healthcare professionals. The researchers believe that one reason for the success of the hand hygiene program is the push from above in terms of acceptance by the leadership of the institution to incorporate hand hygiene into the culture of the organization. This would be a low hanging fruit for NABH to regulate as part of the certification. One of the other cost-effective processes that NABH could require is that sterilization of needles and equipment especially for eye care use the modified sterilization and asepsis protocol (Ravilla et. al, 2009). The authors document the modified sterilization process was accepted in order to facilitate high volume of cataract surgeries. They found this process to be safe and effective by using the post operation infection rate as an evaluation metric. The infection rate was found to be no more than that documented for the developed nations in the world. They further conclude that in several developed nations the regulatory body sets the sterilization process to be followed rather arbitrarily without considering the type of operation. To attain cost efficiency and still meet high volume targets it may be necessary to constantly evaluate outcomes and process

However, NABH might need to consider the economic environment in determining specific standards by considering various forms of market segments in India. The shortage of healthcare support staff in India is much discussed and NABH is aware of it. NABH may need to determine ways in which training can be made more accessible to greater number of candidates to increase the availability of support staff. Insisting on registered nurses without a significant pipeline of such candidates, for specialty care that may not need those skills could lead to institutions resorting to short cuts to attain the certification or not seek the certification at all. Such a requirement may be counterproductive in the long run. NABH could be the body certifying a few training programs based on discussion with their various stakeholders. One other low hanging fruit could be developing an eye care support staff program using the MLOP training program
developed by AECS and other well-known eye care providers. This way there may be standardization in the training program and several eye care providers might benefit. It would also help support staff transition across the country, if needed.

Some of the standards adopted by AECS are ones that can be considered as the low hanging fruit and could be mandated at many hospitals seeking the accreditation. If one were to classify the NABH requirements into customer-related, process-related, support staff-related, and organization-related, then those standards that decrease the probability of an error or help identify errors easily need to be instituted. Those that reduce infection rate need to also be mandated. Those standards that may involve major capital expense or incur significant variable expense need to be analyzed further and appropriately mandated based on the specialty. Any standard that might increase the cost of care with no corresponding decline in the infection rate needs to be analyzed further, especially in the Indian context. Thus the focus for NABH could be on making a greater number of hospitals more patient-focused and process focused in delivery of health care to mitigate avoidable errors. If the standards are such that more patients receive the proper and timely care with lower errors and infection rate then the equity in the system improves. Currently in India equity of care is as important as improved hygiene and the lowering of infection rates.

CONCLUSION
A review of the NABH standards demonstrates that AECS has adopted process-related standards to enhance checks and balances and decrease the probability of an error. A discussion with AECS reveals that they would avoid unnecessary costs that do not increase the number of patients served or decrease the rate of infection/adverse outcomes. Thus, if one were to classify the NABH requirements into customer-related, process-related, support staff-related, and organization-related, then those standards that decrease the probability of an error and those that reduce infection rate need to be mandated. Another focus for NABH could be on encouraging hygienic practices and endorsing patient-focus and process-focus in the delivery of health care. NABH needs to uphold those standards that support the delivery of proper and timely care thereby improving the equity in the system. This balance of the various performance metrics has to be attained, possibly in steps.
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