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A rough guide to eye health financing in Viet Nam[1]

Author: Dr Lachlan McDonald, Senior Economist

Viet Nam's health financing system is underpinned by a single-payer national health insurance scheme. This is enshrined in law and administered by the national government via Viet Nam Social Security (VSS). As at 2015, 72 per cent of the population was covered by the scheme (with 97 per cent of the poor automatically covered via tax-financed subsidized premiums). Most inpatient and outpatient services are covered, including cataract surgery and related consumables. Financial contributions into the system are broadly progressive: richer, formal sector workers comprise 16 per cent of the membership but contribute 39 per cent of funds; and non-contributing members (that is those whom the Government automatically enrols, such as the poor and children under six) represent 49 per cent of the membership but only 34 per cent of funding.

Yet despite the existence of a single-payer insurance system that covers most people and most eye care services the system fails two critical tests in its operation. Firstly, access to services such as cataract surgery is not presently equal for all. Secondly, lower-income households still face the threat of going into poverty as a result of having to spend a disproportionate percentage of their income on health.

Central to these failings are the way that the inbuilt cost–sharing features of the health financing system interact with escalating costs of service delivery. These compound the perennial barriers to access seen in most developing countries, such as the concentration of eye health resources in urban areas, poor quality and inefficient service provision. It explains why "cost" is often identified as a key barrier for the most poor and vulnerable in accessing cataract surgery in RAAB surveys, despite the fact patients are insured and cataract is notionally covered in the health insurance system. It also explains why out-of-pocket expenditure on health remains high in Viet Nam, accounting for roughly 37 per cent of total health expenditure in 2014.

Cost sharing

Cost sharing is inbuilt into the Viet Nam health financing system through mandated patient co-payments. With limited exceptions, patients who have been appropriately referred are required to contribute a relatively small share of their health care costs at the point of service (vulnerable groups contribute five per cent of the costs with the non-poor contributing 20 per cent, see Table 1).

As at 2015 these co-payments were magnified when a patient bypassed the referral system. While this feature is designed to save costs in the longer term by not overburdening higher-level facilities it has the unintended effect of increasing patient out-of-pocket costs in certain circumstances. Interviewees suggested that cataract patients frequently bypass referral pathways and present directly at tertiary hospitals in the cities. Partly, this was because of the perceived poor quality of the primary and secondary level hospitals and partly it reflects the fact that referral pathways are often complicated and time-consuming for patients to navigate. As Table 1 shows that when patients bypass lower-level facilities these mandated co-payments can quickly escalate as a share of the total cost.

[1] This report is based on a week-long exploratory visit to Viet Nam, occurring 24th– 28th August 2015. This WHO-sponsored review had as its objectives to review the current national eye care systems in Viet Nam and to provide recommendations to improve service delivery outputs and quality of outcomes. It focuses on cataract surgery; the main cause of avoidable blindness in Viet Nam and a conventional proxy indicator for general eye care service delivery used by WHO. This is a summary of a more comprehensive report submitted to WHO.

Table 1: Co-payment rates and out-of-pocket costs at the point of service for cataract surgery
Example of a US $300 price charged for surgery

Cohort		Co-pay (per cent of fee)	Out-of-Pocket cost to patient (US$)		
			If referred	If not referred	
				Poor	Non-poor
Exempt	High-ranking police, children under 6 and meritorious persons.	0	0.00		
Referred patients	Pensioners, the poor & members who receive a social protection	5	15.00		
	All other groups	20	60.00		
"Bypass" penalty for non-referred patients**	District	30		132.00	100.50
	Provincial	50		180.00	157.50
	Central / tertiary	70		228.00	214.50
Uninsured		100	300.00	300.00	300.00

*Only direct costs, does not include indirect costs (transport, etc.)
**The percentage reduction in a patient's nominal rebate amount. For example a poor individual presenting at a district hospital with no referral would be required to pay 33.5 per cent of the bill (i.e. 30 per cent of 95 per cent plus the initial 5 per cent co-payment).
Source: VSS, author's calculations

Expensive techniques

Compounding the issue of cost sharing, eye hospitals tend to prescribe treatments with overinflated prices. Interviews revealed that around 95 per cent of cataract surgeries in Viet Nam use the more high-tech, high-cost phacoemulsification (phaco) technique and expensive foldable intra-ocular lenses (IOLs). The remaining five per cent use lower-cost extra capsular cataract extraction (ECCE). These proportions seem to be broadly constant across all of the hospitals visited, at both the tertiary and provincial level.

The price charged for phaco surgery at a tertiary-level hospital interviewed in Hanoi typically ranges between $250 and $300. This is more expensive than surgery at a provincial hospital where the price is closer to $200 (Table 2). In comparison, the price charged by hospitals for ECCE is approximately US$70.

Table 2: Price and Reimbursement information for cataract surgery

Location	Info
VNIO (tertiary level hospital)	$300 – $500 fee charged for phaco cataract surgery. Comprised of three fee-for-service packages prescribed by insurance 1. Surgeon equipment, needles, infrastructure, accommodation etc. (approx. $110) 2. package for IOL – variable and depends on the type of lens used (up to VND 3.5 million – approx. $155) 3. drugs (drops, etc.) – covered by insurance.
Nam Dinh hospital (Provincial provincial)	Price charged for surgery VND 4.5 million (approx. US $200) – includes everything. • average cost of phaco surgery (pre lens) $100, completely reimbursed by VSS via a fixed-fee. • Alcon IOL used in phaco surgery VND 1,870,000 ($85) – but patients can choose to pay more (and regularly do) • average cost of M-SICS - $30 (pre- IOL) – reimbursement from insurance $70
HCMC (tertiary-level hospital)	Total reimbursement by VSS insurance approximately VND 4 million (about $180 USD), of which VND 2 million reimbursement ($90-100) for everything but the lens. But actual price usually much higher for patient: • Price of cataract surgery using a "standard" IOL = VND 9 million ($400) – (out-of-pocket cost to the patient, after insurance reimbursement, between $200 and $220). • Price of cataract surgery using "premium" IOL = up to VND 20 million ($900) – (up to $700 out-of-pocket) Variation in price almost entirely explained by the price of the IOL the chosen by patients and doctors.

VND – Viet Nam Dong; $ value is US Dollars, exchange rate used approximately 22,000 VND per $1

High costs of consumables

As shown in Table 2 almost all of the variation in the price of cataract surgery using a phaco technique can be explained by the choice of the IOL selected in surgery. Across most of the public hospitals interviewed, in cities and in provincial capitals, the non-lens reimbursement component of treatment is broadly constant, at around $90-$100, which is fully reimbursed by VSS. Lenses, however, vary considerably in price.

Ultimately, decisions on both the surgical technique and consumables used in cataract surgery are made by doctors together with their patients. There is no inherent issue with eye doctors performing phaco procedures with higher-priced IOL, when there is a clinical need and the patient can afford a higher co-payment.

The reality in Viet Nam, however, is that doctors have a strong influence over the products that patients choose and that weak incentives for cost control result in the price paid for lenses being much higher than it needs to be. Analysis suggests that the average price of IOLs used in cataract surgery in Viet Nam ($85 - $155) is more expensive than it is for equivalent products in developed economies such as United States and Canada and considerably higher than in less-developed markets such as India (Table 3).

Table 3: International comparisons of IOL costs in cataract surgery
US Dollars

United States	Prices for IOLS range from $40-$150
Canada	$72 for all consumables; including $22 for an IOL.
China	Surgery costs around US$275. Of this, $150 – $200 is the price of the surgical consumables, chief among them, the IOL
Philippines	The price of consumables in cataract surgery averages $95.
India (wholesale and direct from IAPB certified vendors)	Prices of IOLs: $3-5 for PMMA (hard) IOL and $15-$25 for foldable (soft) IOL. Prices of consumables: $11-15 for all consumables, including IOL for ECCE and M-SICs; and $35-40 for all consumables, including IOL for phaco technique
Viet Nam	**The price of cataract surgery averages $250, of which the IOL represents around one third to one half ($85-155) of the total cost.**

Sources: Authors' discussions with health providers; all prices are in US dollars.

The implication of these high costs is that patients are directly paying more for surgery than needed as the costs are passed on through via higher co-payments. Further, it weakens the effectiveness of the insurance system more broadly as the scarce resources of the system are being used to reimburse higher-than-necessary costs.

The high price of IOLs, relative to international benchmarks, is driven by a combination of factors. These include way that VSS reimburses consumables, hospital autonomy in procurement and pricing, anti-competitive behaviour in supplier markets and the general lack of transparency.

VSS uses an input-based fee structure for lenses, reimbursing hospitals for the cost of approved lenses up to a cap (anecdotally reported to be USD $155 at the tertiary level). [2] This input-based cost system for reimbursement of IOL means that doctors are not incentivised to choose lower-cost consumables (even if they are of an equal of higher quality). As one interviewee put it, "if we use a $100 lens, we get $100, if we choose a $50 lens, we get $50."

Further, the fact that hospitals can negotiate directly with suppliers, with limited transparency, for the price of consumables means that suppliers are also likely to play some role in determining the price that

[2] The range of IOL brands permitted by the insurance system differs depending on the level of hospital. In tertiary hospitals (such as VNIO and Ho Chi Minh City Eye Hospital) there are around 20-30 lens brands permitted, while in Provincial hospitals there are just 2-3. This is likely to explain the price differential between the tertiary and provincial-level hospitals. Indeed in Hanoi or HCMC the price of an Alcon IOL used in surgery was around at $150 – higher than Nam Dinh Provincial Eye Hospital where prices were closer to $85.

the Viet Nam health system pays for their products**.** Internationally, it has been observed that a lack of transparency in the bidding for consumables can introduce "rent seeking" behaviour; that is, to encourage the use of particular equipment and consumables so that the supplier can maintain market share.[3]

Low salaries for ophthalmologists working in public hospitals are likely to be strengthening this effect as financial incentives can form a considerable share of a practitioner's income. It was also repeatedly mentioned during interviews with ophthalmologists that supplementary income from suppliers is a factor when choosing phaco surgery (with higher priced foldable IOL and more costly consumables specific to phaco procedure) as they do not receive the same incentives from using non-phaco techniques.

The non-inclusion of cataract surgical training in residency programs in Viet Nam also restricts the available pool of skills. In addition to limiting the availability of surgery, and perpetuates the maldistribution of skills, it also restricts competition in the provider market. Further, it concentrates control over cataract surgical activity and pricing in relatively few hands; permitting an anti-competitive system to flourish, to the extent that it does.

Conclusion

The cost effectiveness of eye health is predicated on a competitive price being paid for services – in particular consumables. Yet the system in Viet Nam presently suffers from a classic principal-agent problem. Financial autonomy in procurement and pricing decisions means that VSS (the principal), ultimately relies on hospitals and doctors (the agents) to keep costs in check. These agents, however, have little incentive to contain costs because insurance is prepared to pay for more expensive surgical techniques. This system is permitted to flourish because costs are opaque, salaries are low and monitoring and enforcement by government is difficult.

Perceptions of poor quality exacerbate these problems by encouraging patients to bypass the referral pathways and incur ever increasing shares of rising costs. The result is that patients face higher economic barriers to surgery and scarce health finance is misallocated.

Lower-middle income countries like Viet Nam have limited health budgets and must spend their money wisely. Costs pressures are only likely to increase over time as progress continues toward Universal Health Coverage and as the population ages. Each of these factors will result in increased demand for cataract surgery and increase the number of claims on VSS.

The near-term challenge in Viet Nam is to find ways to improve value for money in eye care in ways that do not further reduce the availability of services. Lower-cost options for consumables are an obvious first choice, as they are readily available. By placing downward pressure on prices more competitive procurement practices can improve equity in the system and place and eye health on a more sustainable financial footing for the long term.

[3] This study revealed considerable anecdotal evidence of such market manipulation occurring in Viet Nam. High costs are endemic, and result from entrenched inefficiencies, anticompetitive behaviour of suppliers including providing financial incentives to doctors to use particular lenses, and providing equipment pro bono on the proviso that doctors use particular surgical supplies. Anecdotally, it also reflects outright graft (e.g. suppliers providing IOLs to hospitals at a price lower than the VSS cap, but with invoices made to VSS for the full value of the cap with windfall gains the being shared between supplier and purchaser).