#### National Eye Database

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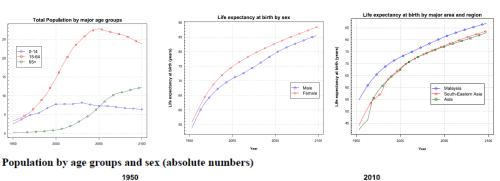
# Demographic Data Projection for Malaysia

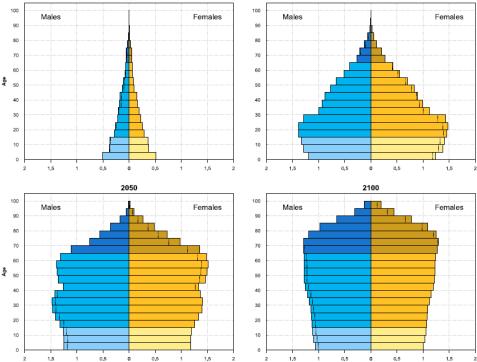
UN Department of Economic and Social Affairs/Population Division projected an increase in the life expectancy at birth and an exponential increase in the population growth for people above 65 years in Malaysia. Increasing life expectancy and lower birth rate will transform the population pyramid such that our population may demonstrate a reverse pyramid by the year 2100. Increasing population demand for better vision, the increasingly lower vision threshold for surgery and the impact of this demographic transition will essentially put a stress on the country's eye care system. Hence as policy makers, individual surgeons and collectively as institutions, we all have tasks in our hands to allocate and prioritize cataract surgery services to face a possible looming crisis. However, are we expanding our cataract surgery capacity adequate enough to enable us to handle a cataract tsunami? It is hoped that the data presented will create awareness amongst all eye care providers on this threat so that concerted efforts can be stepped up to realize our vision of a developed nation status by 2020 and beyond.

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The dotted line indicates the excess male or female population in certain age groups. The data are in thousands or millions

### Cataract Surgical Rate and Cataract Surgical Coverage



Fact: Malaysia does not have data for both indicators.

Cataract Surgical Rate requires the total number of cataract surgeries performed in the country (Ministry of Health, Education, Defence and Private Sector)

Cataract Surgical Coverage requires a population survey.

#### CATARACT SURGICAL RATE

Globally, cataract remains the leading cause of avoidable visual impairment and blindness. It is known that treatment is safe and effective to restore sight.

Cataract Surgical Rate is a quantifiable measure of cataract surgical service delivery. It is often used as proxy indicator for general eye care service delivery. It is defined as the number of cataract operations performed per year per one million population.

#### CATARACT SURGICAL COVERAGE

Although Cataract Surgical Rate can be significantly increased through change in national programmes, it does not measure the impact of the programme on the population as a whole. **Cataract Surgical Coverage** addresses this issue by estimating from the population or prevalence survey, the proportion of eyes/people with operable cataract who have received cataract surgery.

Prevalence of cataract blindness along with **Cataract Surgical Coverage** can give important information about the impact of a cataract intervention programme on the population.



VA check in RAAB

# RAAB—measuring the impact of cataract service in the community

Rapid Assessment of Avoidable Blindness (RAAB) is a method for rapidly assessing visual acuity. People aged 50 years and above are randomly selected from a population.

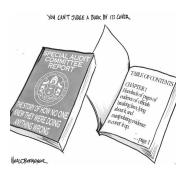
They undergo visual acuity screening and those are found to have problems with their vision are examined by a eye care professional to determine the most likely cause.

RAAB estimates the prevalence of blindness and visual impairment and its main causes. This information can be used to estimate the need for cataract surgery in the community. From this we can estimate the **Cataract Surgical Rate**.

Information is also collected

on the number of people who have undergone cataract surgery, this can be used to estimate the **Cataract Surgical Coverage.** 

It can be used to monitor the impact of cataract surgery service if it is repeated after a period of time (5-10 years)



# Cataract Surgery Registry (CSR) Audit

As of 2012, we have registered more than 200,000 cataract surgeries mainly performed by surgeons in the Ministry of Health (MOH) throughout the country. A large pool of data will be useless if data are missing or inaccurate.

Audit on CSR data is there-

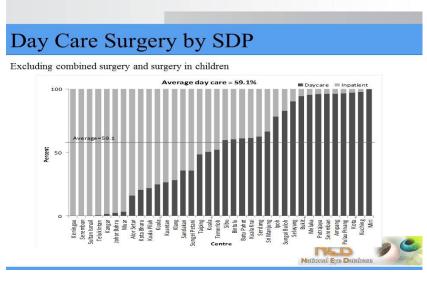
fore essential to identify areas of improvement in the current data management. Audit will be done on selected essential variables in CSR data set.

These variables will be audited and compared with the primary source of data (eye card/ ticket or electronic medical record) and the CRF (preclerking, operative and outcome form)

The auditor will identify whether the variables in the CSR data set are missing, inaccurate or inconsistent with the primary source  $\pm$  CRF.

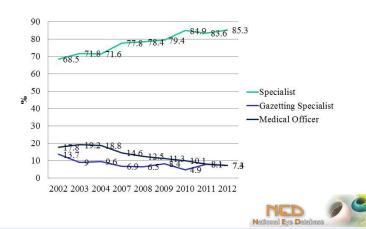
This audit has started in Hospital Umum Sarawak and Hospital Selayang.

# CSR 2012—facts



CSR 2012—facts

### Surgeon Status



*CSR 2012– facts* 

The percentage of intraoperative complication is decreasing over the years. When these data are analysed to compare ECCE and phaco as the method of cataract extraction, phaco showed the lower percentage of intraoperative complication as predicted.

Most surgeons agree that there is no difference in the outcome risks for patients who are operated as a day case as compared to those operated as an inpatient. Day care surgery is practiced worldwide as it is proven to be safe and cost effective for cataract surgery. Besides, it avoids unnecessary anxiety of having to be admitted prior to surgery. In the Malaysian context, besides patient safety, saving costs incurred to the hospital during admission would be most desired as we strive to achieve the fine balance between workload, increasing costs and limited resources.

MOH data showed an increasing trend of daycare practice over the years. However performance in certain hospitals can be further improved. It is imperative on all to improve performance as with the increase in the number of cataract surgery each year, we cannot possibly stretch the inpatient resources beyond its capacity without consequences. The only safe and viable option then is to change policy to daycare surgery.

Medical Officers (MOs) are being groomed as future leaders in Ophthalmology for the country. Performing safe cataract surgery is essential as part of their training as they will ultimately take up the role of their more senior colleagues to handle the workload of cataract surgical services.

Whilst it is an obligation for senior surgeons to ensure that MOs are well equipped to perform the role, there may be operational issues that need to be looked into in the cataract surgery training programme. Points to ponder upon:

- Have we been focusing too much on increasing the surgical output until we neglect training for our MOs?
- 2) The impact of increasing number of MOs on the opportunities for MOs to perform surgery. Do we know the percentage who indeed received opportunity to perform surgery, the frequency of their surgery and the number operated per individual MO?

It is hoped that these questions shall provoke and initiate discussion on how to increase the number of surgeries for training MOs while at the same time optomising the surgical output to improve service.



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### We're on the web

### http://www.acrm.org.my/ned

The National Eye Database (NED) is a service supported by the Ministry of Health (MOH) as an approach to collect health information. It collects data on incidences and distributions, and evaluates risk factors as well as treatment outcome of visually threatening eye diseases such as cataract, diabetic retinopathy, glaucoma and contact lens related corneal ulcer. In the initial phase, NED will collect data on cataract surgery, status of diabetic retinopathy in new diabetic patients, contact lens related corneal ulcer and glaucoma patients. Besides disease registry, NED also collects monthly service census of MOH Ophthalmology departments. The census serves as an effort to monitor key performance indicators of each ophthalmology department in the MOH.

Information collected in the NED is very useful in assisting the MOH, Non-Governmental Organizations, private healthcare providers and industry in program planning and evaluation, leading to eye disease prevention and control as well as continuous improvement of ophthalmic service in the nation.



### Manila



Part of the ruin of Intramuros (wall within city), built during Spanish Occupancy which has been renovated to become a hotel and restaurant for tourist attraction. Malaysia has endorsed the WHO Global Action Plan for the Prevention of Avoidable Blindness and Visual Impairment 2014-2019 in Geneva, May 2013. By endorsing this document, we have committed ourselves to the vision, goal and purpose of this action plan.

Indicators to measure the progress of our commitments are:

- Prevalence and causes of visual impairment
- Cataract Surgery Rate and Cataract Surgery Coverage.

As part of this effort, Malaysia was invited as delegate to the recently conducted Training of Trainers (TOT) for the Rapid Assessment of Avoidable Blindness (RAAB) in Manila.

It was organized by the World Health Organization (WHO) Asia Pacific Region for member countries. It was held from 10—15th March 2014 at the Jose Rizal Eye Institute, Philippines General Hospital, Manila.

Other attendees were from Indonesia, Vietnam, Lao, Cambodia, Fiji, Papua New Guinea, Philippines and China.

The main objective of this TOT is to train the trainers on the methodology used in RAAB to enable them to conduct RAAB as a population survey. Once certified, the trainers can conduct training for the local eye care providers with the ultimate aim of producing country data for the indicators specified.

Interaction with other delegates has enriched our experience and our network in Public Health/Community Ophthalmology. We plan to conduct RAAB training and local locally in September. A successfully conducted survey will put us on the world map alongside others with concrete country data.