AMA Azeez Oration 2005

HEALTH OF SRI LANKAN MUSLIMS…SOME ISSUES TO ADDRESS

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Introduction and Definitions

The subject of health, education, socio- cultural and religious facets are closely intertwined and overlapping in their influence on one another Muslims who hold and practice the religion of Islam close to their hearts as the central theme in their lives, experience this even more. I am sure Marhoom AMA Azeez would have fully approved of the subject I have chosen for this oration:

"HEALTH OF SRI LANKAN MUSLIMS - SOME ISSUES TO ADDRESS·

History of Muslims

In recorded history Arabs have been trading in spices, gems and silk with the Sinhalese King for over 1500 years, even before the advent of Islam in Arabia. They came as friends and to trade for profit and easily found their way into royal household. The Portuguese who came in 1505-06 came in with a different agenda not only as business rivals but also with the idea of setting up a Fort in the region, their religion and the alien European culture. The original Muslims traded in the ports in Mannar, Puttalam, Chilaw, Wattala, Negombo, Colombo, Beruwala, Kalutara, and Galle. The first mosque they built was in Kalutara just a mile past the Kalutara town on the sea side.

Under the Portuguese and Dutch rule, Muslims were discriminated. This led to the Muslims, in fact the Ceylon Moors, being displaced away from their primary settlements in the European-occupied Western Coast further inland and to the Eastern province. They took to agriculture, fishery and trade and even today occupy an area home to nearly one third of the total. The Moors live well integrated amongst the Sinhalese and Tamil villages in the rest of the country. They were largely traders be it cloth, food and groceries, gems or jewellery. But also employed as weavers, tailors and physicians. Some were employed in the royal households as chefs, in the bath, in the military and as physicians.

They were the last to receive the advantages of western secular education brought in by the Europeans to this country. As education was linked to wealth and this was the weakest point of the Muslims at that stage and they suffered materially. The rich got richer and the poor have children and the highest fertility rates were recorded amongst the Moorish women. The rich trading activities between the Coastal Moors of South Indian origin and the Indian Subcontinent gave birth to a long tradition of Import Export trade and Wholesale Trade in the local Muslim community. Only the elite Muslim groups benefited in this profitable trade, whilst the larger proportion of the community was backward and remain poor.

These glimpses of the historical past of the Muslims makes one think of the health impact it would have had on the community. Although the Muslims as a community in the early post independence era was a minority in numerical terms there was a group who were economically and socially domineering and influential in society. This created a false image of the strengths and weaknesses of the community. 50 years after independence in this oration, I plan to visit the impact all of the above had on the health of this community.

Muslims of Sri Lanka

For the purpose of this oration, in order to accommodate and compare data from the different sources, I have included the following groups practicing the religion of Islam, and carrying a Muslim name as the *MUSLIMS OF SRI LANKA.* They include:

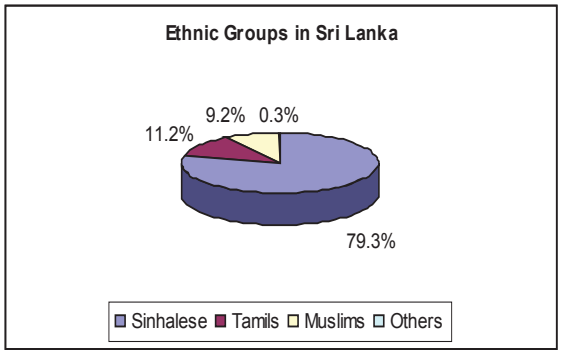
- Ceylon Moor (Marakkala) - ubiquitous
- Malays (Ja) - of Javanese origin - urban - Colombo, Kandy, Hambanthota, Badulla, Kurunegala - in armed forces - performed well and highly respected
- Coast Moors (Hambayas) - of South Indian origin, now integrated in to the Ceylon Moors category
- Memons and Borahs
- Afghans (Baluchis) and others

Present demography and distribution

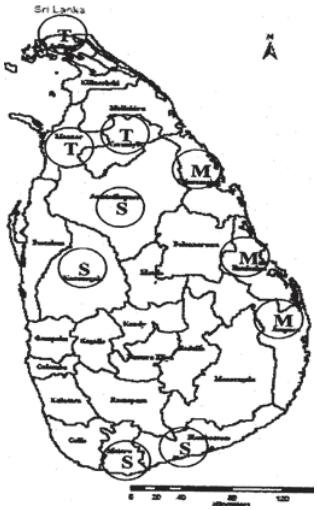
The total Population of Sri Lanka and the ethnic composition at the 2001 Census is given below:

District with majority of Muslims

One third of the Muslims of Sri Lanka live in the Eastern Province. Although Muslims are ubiquitous, there is no district with a Muslim "majority" but the three districts of the Eastern Province have been identified to have the highest percentage of Muslims. I have used these percentages for standardising data from these provinces in order to compare Muslims with the notional data where ethnic data is not available.



Source: Department and Census and Statistics 2001



Health : ".. is a state of complete physical, mental, social well-being that would enable an individual to lead an economically productive, useful life. It is not merely the, absence of disease or disability." - [World Health Organization]. Spiritual wellbeing has now been included in the definition.

The needs of a community include:

- Food,clothing, shelter
- Security
- Health
- Education
- Economic
- Environmental
- Employment Agriculture/ Industry / Technology
- Socio-political
- Recreational

In Islam spirituality encompasses all these needs. The relative importance given to the different components in the list would differ amongst individual Muslims, will have an impact on his health-seeking behavior and compliance with health advice.

We shall now discuss some of the health issues among Muslims in Sri Lanka.

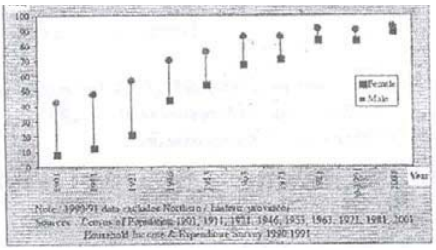
1. Education

1.1 Literacy

Literacy and education are important in health. Compared to the literacy rates of Muslim countries such as Pakistan, there is no hard evidence to show that the literacy of Muslims is any different from the national average of 92.1%.

Literacy rates are generally lower among females in most communities, and this gap is indicated by the Literacy gender parity index. The greater the gap between male and female literacy, the lower the index. Literacy among adult females has been shown to be associated with better maternal and child health outcomes such as lower maternal mortality rates.

Figure 3.1 Gender Gap in Literacy Levels



The gender the gap is gradually bridging in all ethnic groups due to the equal opportunities and access to basic education and health. We should be grateful as a community to late Sir Razik Fareed who championed the cause for Muslim female education, which was augmented by the efforts of late Dr. Badiuddeen Mahmud. However as in any system some disadvantaged pockets .exist amongst all communities where inadequacy of material or human resources exist in education, health, or social infrastructure causing some dissatisfaction. These gaps can be identified and brought to the notice of those who can correct these by community level research.

An example of such research is shown in this table

Table 1.1 : Literacy Gender Parity Index among disadvantaged groups

	Male	**Female**	LGPI
Rural peasant	68	54	0.8
Rural working class	69	60	0.9
Urban slums	50	12	0.2
Urban working class	72	60	0.8
Fishing community	76	66	0.9
Plantation community	79	38	0.5

Source-
Gunawardena etal,1995

What percentage of Muslims live in urban slums, and what are their health outcomes?- This is an area for further research.

1.2 School drop-outs - School drop-out age

Wastage due to dropouts had decreased from 1990 to 1997. (5.1% for males and 6.8% for females in, 1990 decreased to 3.2% and 3.8% respectively in 1997). The rates for the Muslim community is another area of social research.

Table 1.2: Total Number of Survivals up to Grade 5 Out of a Cohort of 1000 by Province 1997

Category	**Province**								
	W	**C**	**S**	**N**	**E**	**N.W.**	**N.C.**	**Uva**	**SAB**
Total Survivals upto gr. 5	993	964	973	995	909	961	968	946	947
Number of Dropouts	7	36	27	5	91	39	32	54	53

Source: Ministry of Education and Higher Education –EMIS

The total number of survivors reaching grade 5 are above 90% in all the Provinces. The dropout rate in the Eastern province is the lowest (90.9%) and the best rate is from the Western Province (99.3percent). The highest number of dropouts (91) are from the Eastern province and around 50 from Uva and Sabaragamuva provinces. Western province again records the lowest. This does not lead to the conclusion that the Muslims who comprise 1/3 of the population in the Eastern province tend to drop out of school early. In fact, Muslims of the Eastern Province are becoming more ambitious educationally and more enter tertiary education and practice as professionals.

This is comfirmed by the Consumer Finances and Socio Economic Survey - 2003/04 of the Central Bank, Sri Lanka, given in the table below:

Table 1.3: Educational Attainment (As a percentage of population aged 5 years and above)

Level of Education		Muslims (%)	All (%)
No Schooling	Both	10.6	7.9
	Male	7.1	5.8
	Female	13.8	9.7
Primary (a)	Both	36.4	29.9
	Male	36.7	31.6
	Female	36.1	28.3
Secondary (b)	Both	38.0	41.0
	Male	40.1	42.9
	Female	36.2	39.4
Post Secondary (c)	Both	15.0	21.2
	Male	16.1	19.7
	Female	14.0	22.5

(a) Completed Kindergarten to passed Year 6

(b) Passed Year 7 to Passed year 10

(c) Passed Year 11 to graduated

What is the community breakdown and how could this be addressed if reasons are due to overwhelming poverty or ignorance. We as a community cannot help the state to do it all.

1.3 Educational facilities

A study conducted in 1998 Showed that there was no significant difference between the pupil-teacher ratio in the Eastern Province compared to the national ratio. Research is needed to look at the availability of teachers for different subjects in Muslim schools island wide, especially science subjects in senior classes as this I have personally heard in remote areas. Here again there are pockets of disadvantaged communities of all ethnic groups who get left out in the distribution of material and human resources. Community groups must research into these and provide the necessary safety nets to ensure equity and access.

2 Economy

2.1 Occupation

Historically, Muslims are a trading community, engaged in business. They are famous for gems and jewellery amongst other trades. The Muslims in the Eastern Province engage in agriculture and fishery. The present day Muslim community has adopted almost all types of employment. More Muslims are entering professions. Like the rest of the country, Muslims, too are enticed by better employment and incentives in other countries. Some settle in the countries they emigrate to.

Foreign employment

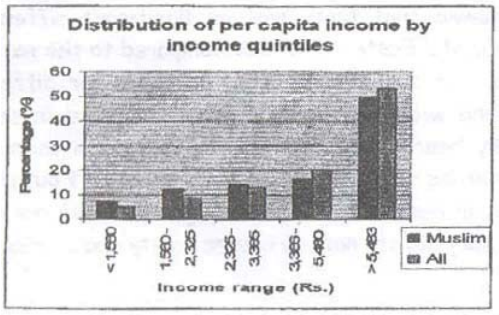
Muslim women seek employment in the Middle-east. Studies have shown negative health consequences among the family especially the children left to be cared for by others. It is a subject of intense sociological interest. Pediatricians complain of child neglect and child abuse. especially in families where mothers have emigrated for employment in the Middle-east. This is a problem in all ethnic groups.

2.2 Income

The prejudice that the Muslims are a richer community still prevails, as a few individuals show off

their wealth by extravagant ways in their conduct of social functions such as weddings, the manner of dressing, transport, housing. etc. The analysis is below show the actual situation.

Figure 2.1:Per capita income distribution of Muslims by income quintiles



Source: Central Bank of Sri Lanka Consumer Finance and Socio-economic Survey 2003/2004 (CFS 2003/04)

According to the above survey, the monthly per-capita income of Muslims is 4% less than that of the general population. The monthly per-capita expenditure of Muslims (Rs.3737) is 1.7% more than their per-capita monthly income (Rs.3,565), i.e. Muslims on average spend more than they earn!

The chart below shows how Muslims spend their money, compared to the general population.

Figure 2.2 Types of expenditure as percentage of percapita monthly expenditure

Expenditure Category	Muslims	All
Food and non-alcoholic beverages	38%	34%
Alcoholic beverages. tobacco and narcotics	2%	2%
Clothing and footwear	8%	7%
Housing, water, electricity, gas and other fuels	16%	15%
Furnishings, household equipment and maintenance	5%	6%
Health	3%	3%
Transport	9%	10%
Communication	2%	2%
Recreation and Culture	4%	7%
Education	3%	3%
Restaurants and Hotels	2%	1%
Miscellaneous goods and services	6%	8%
Interest on debt	1%	2%

Muslims spend less on health than the general population, and more on clothing, footwear and housing.

3 Environment

The majority of Muslims live in the rural sector. However, compared to the overall distribution in urban and rural sectors, more Muslims seem to live in the urban sector. (P>0.05, not statistically significant)

Sector	Muslims	Sri Lanka
Rural	64.8%	80.0%
Urban	34.5%	14.6%
Estate	0.7%	5.3%
Total	100.0%	100.0%

(*excluding Jaffna , Mullaithivu, Killinochchi)

Source: *Census of Population and Housing – Department of Census &* Statistics Sri Lanka

This trend has been present historically, as they are largely a trading community, except in the Eastern Province, where Muslims have taken up agriculture and fishery. In the recent past, more Muslims are educated and enter professional employment, eg: Medicine, law, teaching, accountancy and information technology.

As a trading community, Muslims may have concentrated in urban areas, enjoying the benefits such as ease of communication, transport and opportunities for better education income generation and recreation. However, health issues in urban population is a matter of concern due to over crowding, poor housing, poor sanitation, environmental pollution and high cost of living. This may result in a high incidence of communicable diseases, in particular, respiratory and gastrointestinal diseases in the community. Urbanisation may also promote abuse of alcohol and other addictive substances. The "urban culture" of eating out also promotes unhealthy dietary habits, leading to obesity and associated disorders of the non-communicable diseases.

More recent survey carried out by the Central Bank of Sri Lanka (CFS 2003/04) showed that overcrowding was higher among the Muslim community (floor area per person = 13.8m^2 vs. the overall of 16.8 m^2 floor area per person).

Sanitation

The availability of toilets was extremely poor in Mullaitivu , Battioaloa, Vavuniya, Mannar, Ampara and Trincomalee districts, all of the Northern and Eastern Provinces. No research data is available to comment further on the Muslim situation.

4. General health indicators

Sri Lanka is for ahead of her South Asian neighbours in the accomplishment of human development goals.

Life expectancy at birth is currently 72 *yrs.* and is close to the estimated lifespan in the developed countries. High literacy rates, low mortality rates and the steadily declining population growth, reflect the country's progress in the sphere of social development. All these human development indicators are a tribute to Sri Lanka's social service net work, which was established in the latter part of the 1940 decade, ensuring sound educational policies, an extensive health care programme and an effective medical system for all sectors of the nation.

Vital statistics

- Crude birth rate
- Crude death rate
- Maternal mortality rate (MMR)
- Infant mortality rate,
- Neonatal mortality rate

In Sri Lanka

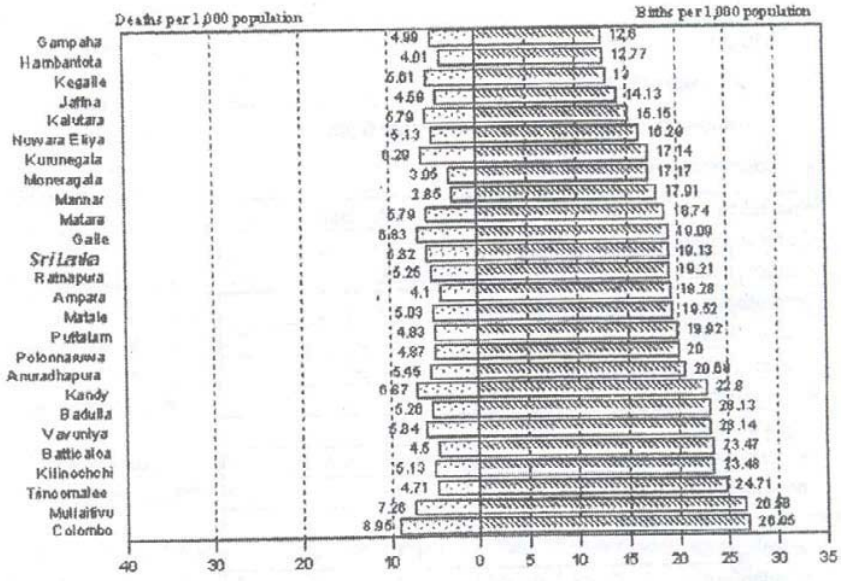
The Birth Rate has been gradually decreasing over the years. The Death Rate declined drastically in the immediate post - World War period. Since then it has it has continued to decline gradually.

Fig. 4.1 Birth and Death rates, 1930-2002

Source: Annual Health Bulletin 2002

There is no district wise or ethnic differences in the crude birth and deaths rates 2002.In fact in illness specific death rates there was no significant differences noted in the top 5 causes of death between the Muslim populous districts and that reported for the nation .

Fig 4.2- District Variation in Crude Birth and Death rates, 2002



Source: Annual Health Bulletin 2002

5 Quick Expert Opinion Survey

As ethnic breakdowns were not available for prevalence of diseases, an opinion survey was carried out among expert senior Consultant doctors on the common diseases and health practices of their Muslim patients

105 consultants responded.

- Male (62.5%)>Females (37.5%)
- 30-50 years (49%)
- Average no.of years after graduation:28.6yrs
- Age Groups
- 51-70 years (51%)
- Specialities of consultants

Specialty	Number
General physicians	55
Pediatricians	11
Cardiologists	6
Psychiatrists	4
Dermatologists	4
Rheumatologists	3
Nephrologists	3
Hematologists	2
Endocrinologist	1
Gastro-enterologists	1
Neurologists	1
Pathologists	1
Total	**105**

Ethnicity of Respondents	Percentage %
Sinhalese	78.5
Tamils	16.1
Muslims	3.2
Others	2.2

Most consultants (91.4%) saw mainly Sinhalese patients during the course of their days work.

Of the list we provided to them the common illnesses they reported as occurring more frequently amongst their Muslim patients are listed below:

* Obesity (88%)
* High blood pressure (58%)
* Cerebrovascular accidents (strokes) (32%)
* Tuberculosis (32%)
* Drug addiction (16%)
* Sexually transmitted diseases (4%)
* Diabetes mellitus (73%)
* Islamic heart disease (53%)
* Smoking (20%)
* Septic abortions (4%)
* Alcoholism (4%)

Amongst the other diseases sampled, respondents rated suicide as a rarity amongst Muslims compared to other ethnic groups. They observed that compliance with drug treatment and lifestyle modification was best among the Sinhalese patients (62.7% and 65.8% respectively) and least among the Muslims (4.5% and 1.3% respectively). Although 75% of consultants thought that Muslims were trilingual, their level of understanding about their illness was the lowest (1.2%). All consultants thought that Muslims had the largest number of children per family. (Census and statistics) An interesting finding in this opinion survey was that Muslims more were ready to spend money on private health care. Some consultants commented that Muslims like to have quick cures and lacked patience and this may be the reason for their readiness to try private care. This view was not supported by the CFSS2003/04 in which household expenses and per capita expenses when analyzed by ethnicity did not show their excessive spending on health. The sample however was small and more targeted social research was needed.

6 Health of the Mother and child

• Health of the mother and child (obstetrics)

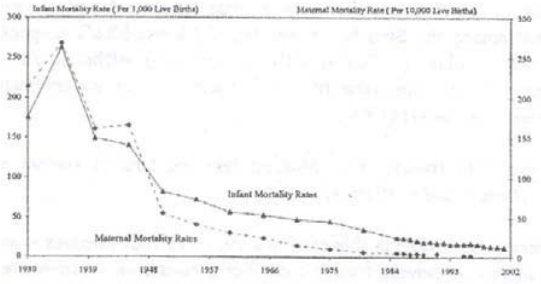
• Health of women - fertility and family planning

6.1 Maternal health

An important indicator of the health of a nation is the care of its pregnant mothers and newborn infants. The maternal mortality rate is the number of deaths of pregnant females from the beginning of pregnancy up to 6 weeks after delivery per 10,000 live births due to any cause.

Fig 6.1 below shows the trends in MMR

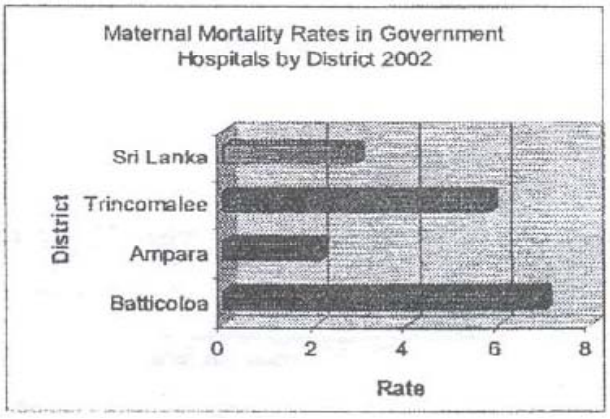
Figure 1.4-Trends in Maternal and Infant Mortality Rates, 1930-2002



Source:Annual Health Bulletin 2002

Along with the Crude Death rate, maternal mortality , too, fell dramatically immediately after the World War and continues to decline gradually. At present Sri Lanka has a MMR of 2.9/10,000 live births in 2002. which is lower than that of most developing countries . The rate of home deliveries has been decreasing with more than 90% of mothers delivering under the care of a trained assistant.

The maternal mortality rates of districts in the Eastern province are shown in Fig. 6.2 below



Source:Annual Health Bulletin 2002

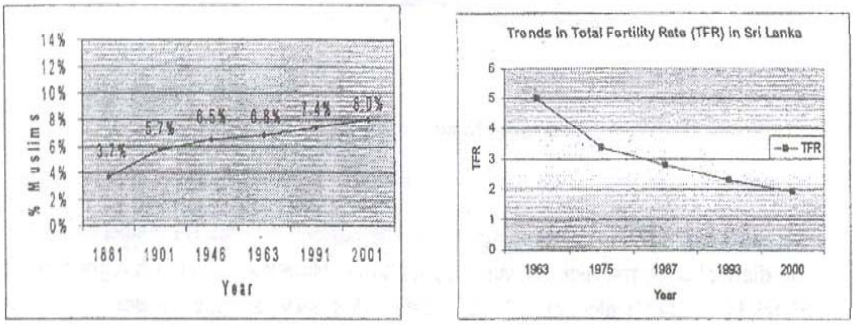
The maternal mortality rate is similar to the national figures for Ampara district, the district with the highest Muslim population. However, it is much higher in the districts of Batticaloa, and Trincomalee. This may be due to generally poor accessibility to health care services.

Muslim women are often conservative, and prefer to be examined by a female doctor. This was taken into account in the 1940s and '50s, a Woman Medical Officer (WMO) was posted in stations where there was a high Muslim population. Obstetricians noted that Muslim women prefer the privacy of the private sector, especially with regard to obstetric care and child-birth.

6.2 Fertility and Family Planning

Fertility tends to be greatest when people are poorest, "the rich get richer, the poor have children". Those sections of the Muslims with the lowest income had the highest fertility rates. Muslim women who had higher education had fewer children.Highest fertility rates were among poor Moors and Malays living in urban areas. Higher fertility correlated with lower scores in mental tests by children, as they receive smaller shares of parental care and time. Source : Samarasinghe and Davood, quoted in Muslims of Sri Lanka – Avenues to antiquity – Dr. MAM Shukri.The percentage of Muslims has been increasing gradually over the past two decades, as shown in the chart below. This may be due to the higher fertility rate among Muslims.

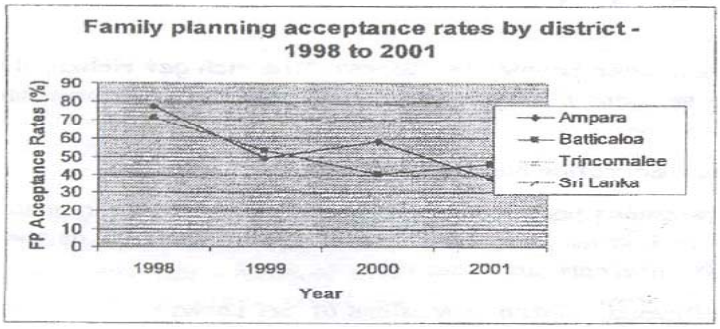
Figure 6.3: Trends in the percentage of Muslims vs. the total fertility rate of Sri Lanka



Source: Annual Health Bulletin 2002

Family Planning and Muslims

Family Planning is a controversial subject amongst Muslims the world over. The table below shows the family planning acceptance rates in the districts of the Eastern Province



Source: Family Health Bureau- Annual report on Family Health 2001.

Islam doesn't permit family planning as a national policy. However it permits family planning for individuals with specific reasons. This may sound conflicting but is understandable when one is accepting Allah as the one who determines multiparity, infertility or family planning method failure. Science cannot offer a perfect solution.

The Holy prophet Quranic verses amply support family planning practices some of which have been recorded as actually discussed and practiced even during the lifetime of the Prophet with his blessings. It is understandable that at the formative stages of Islam with heavy casualties of war, it was necessary to promote larger families. The holy Quran is well known for the choice of the apt words used and their deep meaning. The holy book says,

"Your wives are as tilth unto you, so approach you tilth when or how you will ……. "

Chapter 2: Verse 223

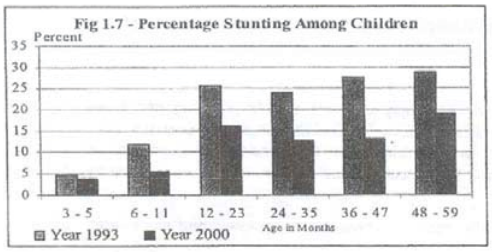
Thus a good farmer never cultivates continuously. After a harvest the field is nourished and left alone. So it should be for women. The prophet disliked breastfeeding and conception simultaneously. It is also prudent to recall that the holy prophet supported breast-feeding for two years. Hence a period of 2-3 years spacing is inferred. However some schools of religious thought continue to argue although learned bodies have given 'Fathwah" for family planning. Barrier methods have been allowed and practiced in Sri Lanka for over 50 years.

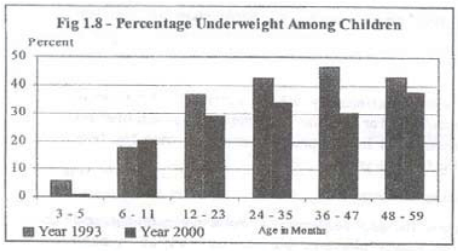
Allah. Family planning methods are not against the Islamic Faith and total reliance on
Abortion has no place in Islam as it is interpreted as "Killing".

7 Children

7.1 Nutrition

The survey finds that 23.7 per cent of the children suffer from chronic malnutrition. Even though malnourishment continues to be a health concern among children below 5 years, the results of the DH survey show that there is a remarkable decline in the proportions overtime at all ages.





Source: Demographic and Health Surveys 1993 & 2000

Breast-feeding

Pediatricians have noted that among their Muslim patients, both urban and rural, the breast-feeding practices are poor. Many mothers introduce Formula feeds early in 1st month. The early introduction of Formula feeds introduce various negative health effects in infants, including frequent infections, allergies and asthma and the tendency to develop diabetes in later life. Some mothers following the religious teaching continue to breast- feeding till late (2 yrs), leading to inadequate intake of energy and nutrients from solid foods, resulting in malnutrition. This may be because mothers need to be educated that exclusive breastfeeding is not advised for not more than 6 months although they can give at least one feed up to 2 years.

The Islamic view of breast-feeding

*"**Mothers shall give suck to their offspring** for two whole years. For him who desires to complete the term, but he shall bear the cost of their food and clothing on equitable terms. **No soul shall have a burden laid on it greater** that it **can bear**.* No mother shall be treated unfairly on account of a child, no father on account of his child, and heir shall be chargeable in the same way ***if they both decide on weaning by mutual consent and after due consultation, there is no blame on them***. - Holy Quran, Ch 2 : verse 233

Islam upholds breast-milk as the best. In the time of the prophet Muhammad (PBUH), Breast-feeding by another woman (wet-nurse) was permitted when the mother was not in a position to breast-feed.

7.2 *Child abuse*.

Child abuse in the Eastern Province accounted for only 4% of the total no. of children referred to, the NCPA. Their 2004 report on cases of child abuse shows the lowest case reporting from north- eastern province whilst the highest in the western province. This may be due to under-reporting, not referring to NCPA or actual low incidence of child abuse.

Personal communication with the Pediatrician of Ashroff Memorial Hospital Kalmunai revealed that children clinically suspected abuse are not referred as the parents or care takers vehemently deny abuse and no further action could be taken. This is particularly seen in families where the mother has gone to work abroad, eg. Middle-East. (she has seen 3-4 cases within the past 8 months) This area needs further study.

8 Adolescent Health

Adolescents are between 10-19 years of age. There are 3.7 million adolescents in SL 1/5th of the country), of which 2.7 million are school-going. Adolescents are in are in a transitional period of growth, and in Sri Lanka, many are dependent on ,parents economically.

The National Survey on Emerging Issues among Adolescents in Sri Lanka- UNICEF 2004 (A survey

of 29,911 school-going (questionnaires) and 10,079 out of school adolescents (interviews) in all 25 administrative districts of Sri Lanka) reports some relevant issues, as discussed below.

8.1 Substance abuse

Tobacco Smoking: *Prevalence of smoking*

- Have you ever smoked? : boys- 18%, girls 6%.
- Increased with age
- Out of school particularly high- 42%
- Higher in extreme socio-economic groups
- Out of school- Sinhala > Muslims >Tamil
- Muslim adolescents seem to occupy a mid-position in the ethnic breakdown

Alcohol:

- ever used; boys - 24%, girls - 10%
- Sinhalese>Muslim>Tamil
- initiated 14.3 yrs (boys). 14.1 yrs (girls)
- higher extreme socio-economic groups, less in middle income

Muslim adolescents seem to occupy a mid-position in the ethnic breakdown.

Narcotic drugs

In the national survey by UNICEF 2004
Q. Ever tried mood altering drugs? Response yes in 2.3% school -goers and 4% from those out of school.
Drug abuse: Higher in the Muslim adolescents

8.2 Life skills

Ambition:

More in Northern & Eastern Provinces aspire to be doctors, engineers. This is related to importance given to Self-esteem and their parental expectations. Muslims were less persistent in trying to reach a set goal. However, they were prepared to try out alternative ways when one method failed more quickly.

Family: More Muslims had someone they trusted at home.

Anti-ragging attitude: Tamil> Muslim> Sinhala

Enjoying school: Muslim adolescents enjoyed school more.

9% of school-going adolescents in Sri Lanka engaged in income generating activity; *1/2* gave their income to parents, 21% used for school expenses. This practice decreased with increasing socio-economic status.

8.3 Future expectations

Of the Adolescents out of school Highest % who did not express future expectations were the Muslims.

8.4 Sexual abuse

About 10% early school-going adolescents
Boys (14%) > girls (8%) No gender difference 10% of out of school adolescents abused.

On average, adolescents from N&E and Estate sector seemed relatively disadvantaged, but only slight variation. There were no specifics on Muslims. As most Muslims live in extended families, they may be protected from abuse on the one hand, while on the other hand children may also be exposed to abuse, as the study showed that the perpetrator was most often a family member (38%).

Early adolescents – relative- 27%, outsider - 35%
Late adolescents - outsiders - 35% Awareness increased with age.

8.5 STDs

Awareness was most among Sinhalese >Muslim>Tamils

9 Diseases

Diseases are broadly divided into two groups:

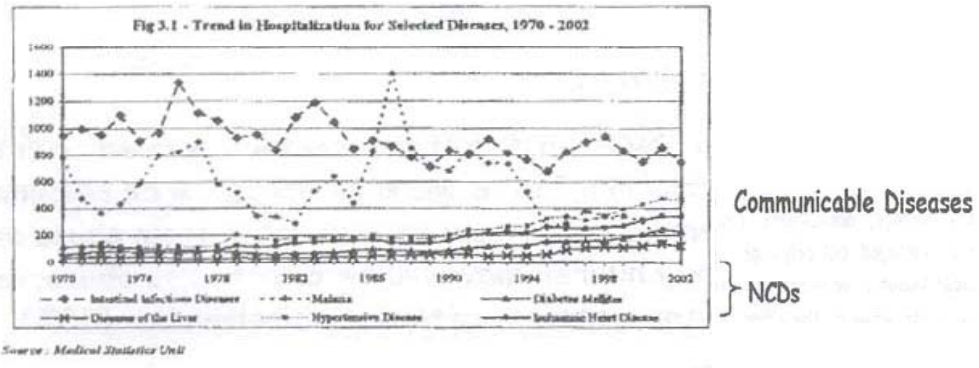
a. Communicable diseases - diseases that are spread by infective organisms, eg- tuberculosis, malaria

b. Non-communicable diseases - eg. diabetes, high blood pressure (hypertension), ischemic heart disease

9.1. Morbidity

The commonest causes for consulting doctors as out-patients were respiratory diseases and diseases of the musculoskeletal system (eg. backache, joint pains, etc.) The survey on common illnesses among the population conducted as part of the CFS 2003/04 revealed that there was no difference in the prevalence of respiratory diseases among Muslims.

In more serious disease, people get hospitalized. Trauma and diseases of the respiratory tract were the main causes of hospitalization in almost all districts, including those of the Eastern province.



Source : Medical Statistics Unit

We are presently in a transition period, where the epidemiologic pattern is changing. Illnesses such as malaria, which decimated our population in the 1930's is now on the decline, but has not still left us. In our desire to industrialize and improve our quality of life, our food and recreational habits are changing. And in its wake, comes another set of diseases, namely the non-communicable diseases, which is on the increase. We therefore have to grapple with a double burden of disease. With this quest for enjoyment of life, we medics have to deal with problems associated with smoking, alcoholism and drug abuse. HIV and AIDS is a new communicable disease, the presence of which is very evident in the region. Avian Flu is threatening in the horizon.

9.2 Causes of death

According to the Annual Health Bulletin, in 2002, Islamic heart diseases, diseases of gastrointestinal tract, pulmonary heart disease and-diseases of the pulmonary circulation and cerebrovascular diseases, ranked as the first few leading causes of hospital deaths. These diseases accounted for about 30% of deaths.

In 2002, the commonest causes of mortality in districts of the Eastern Province were:

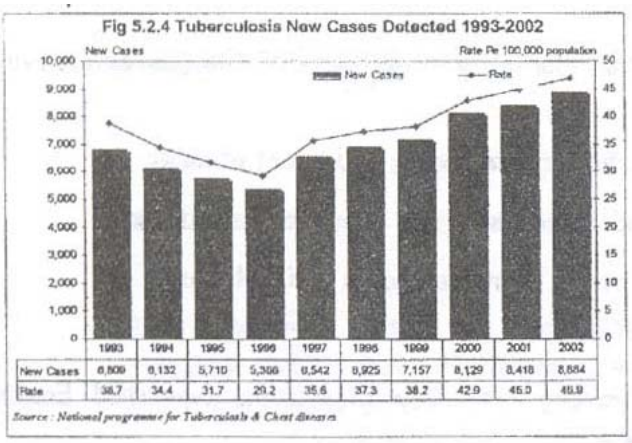
* Islamic heart disease - which cause angina and heart attacks
* Pulmonary heart disease-and-diseases of the pulmonary circulation
* Respiratory tract diseases other than pneumonia and influenza
* Infections

There is thus no difference among mortality in Muslim populated Eastern Province from that of the country.

9.3 Communicable diseases

Tuberculosis

Tuberculosis is a communicable disease which is an increasing problem, especially with the rising trends in HIV/AIDS patients the world over. This is particularly true of our neighboring India but we seem to have been somewhat spared from the spread of HIV / AIDS associated with Multi drug resistant TB.

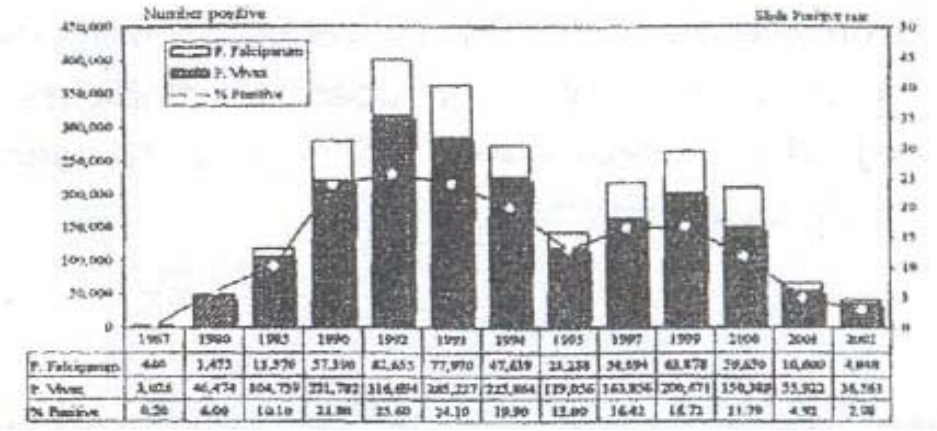


	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
New Cases	6,809	6,132	5,710	5,366	6,542	6,925	7,157	8,129	8,418	8,884
Rate	38.7	34.4	31.7	29.2	35.6	37.3	38.2	42.9	45.0	46.9

Source : National programme for Tuberculosis & Chest diseases

I have no hard data to prove the perception amongst practitioners that there is a higher prevalence of Tuberculosis amongst the urban poor in Colombo. The community needs research this. Tuberculosis is a communicable disease which is on the increase, especially in overcrowded urban communities.

Malaria



	1987	1989	1985	1990	1992	1993	1994	1995	1997	1999	2000	2001	2002
F. Falciparum	446	3,473	13,570	57,390	82,655	77,970	47,619	23,238	34,594	63,878	39,879	10,600	4,848
P. Vivax	3,026	46,474	304,759	331,782	316,684	285,227	225,864	159,056	163,856	206,471	150,342	55,922	36,763
% Positive	0.26	4.00	19.10	23.80	25.60	24.10	19.90	13.90	16.42	16.72	11.79	4.92	2.98

Malaria is a declining problem as indicated in the figure above and there is no evidence to suggest that mosquitoes prefer to bite Muslims. However in the North-Eastern provinces where mosquito control activities were hampered due to war situation there were more cases.

Table 5.2.1 Percentage of Malaria Cases Reported by Province, 2000 - 2002

Province	Percentage		
	2000	2001	2002
Western	1.1	1.2	0.9
Central	1.1	1.1	0.9
Southern	2.7	1.3	2.8
North Eastern	50.3	66.3	70.4
North Western	10.7	10.6	8.1
North Central	8.2	7.3	9.4
Uva	22.2	7.1	2.7
Sabaragamuwa	3.6	5.1	4.8
Total	100.0	100.0	100.0

Source : Anti Malaria Campaign

9.4 Non – Communicable Diseases

Under this category, we shall focus on the entity called Metabolic Syndrome or Syndrome X. This is a collection of disorders including obesity, diabetes and hypertension (high blood pressure) that predispose individuals to serious complications such as ischemic heart disease and strokes.

9.4.1 Diabetes

A disorder of Insulin secretion where the body is unable to regulate blood sugar levels. There are two types of diabetes-Type1 and 2.

Type 1- usually affects younger people, even children. It is the less common variety .
Type 1 patients are usually thin, and can go into diabetic coma.

Type 2- the common veriety. Usually begings in adulthood and associated with obesity.

Both type 1 and 2 required strict dietary control. Uncontrolled diabetes leads to damage of key organs such as the

eyes → blindness

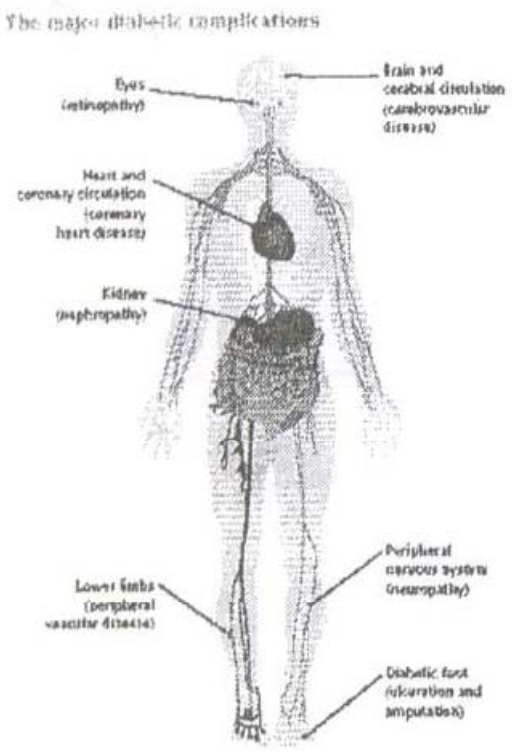
Kidneys → Kidney failure

heart → heart attacks

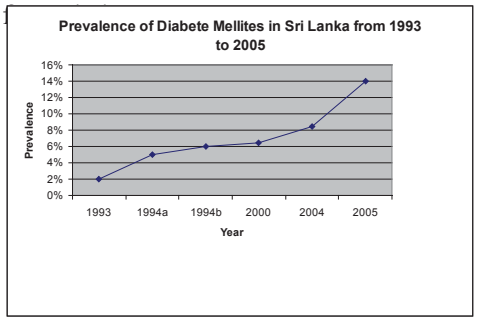
brain → strokes

nerves and the feet → leading to non-healing ulcers and amputations

Today, it is estimated that around 194 million adults in the world have diabetes .In 2003 it was estimated that 5.1% (in the age bracket 20-79) of people in all IDF member countries have diabetes.



In Sri Lanka the rates are higher (males - 14.2, females13.5%), and on the rise, as shown in the



Source:P.Katulanda,MHR Sheriff, DR Matthews

Prevalence of diabetes amongst Muslims

A survey in 500 households selected by randomization technique inhabited by 2449 residents over 18 years carried out in Akurana In 1993 by Illangasekera et al revealed a crude prevalence of 7.06%, higher in males. The prevalence increased with higher social class (8.6% in social class 1 - the highest social class). The prevalence of diabetes among Sinhalese social class I was 5%. He concluded that the prevalence of diabetes appeared to be high among Muslims compared to Sinhalese. He suggested that Muslims may be genetically predisposed to develop diabetes.

Source: Upali Iliangasekera, Kumari Pussepitiya, Shantthi Kandappa - Prevalence of known diabetes in a moor community in Sri Lanka. Abstract, Proceedings of Kandy Society of Medicine Feb 1993.

I believe that eating habits may also be responsible for this difference. This obviously needs focused research. The “Quick Opinion Survey” I recently conducted showed that 73% of the 105 senior consultants thought that diabetes was seen more frequently amongst their Muslim patients.

In a study conducted by Prof. Chandrika Wijayartne, amongst the mothers diagnosed with gestational diabetes, 7.6% were Muslims. This is similar to the proportion of Muslim in the population. However, in another study, she found 9.6% of patients with Polycystic Ovarian Syndrome were Muslims. This is a disease entity associated with diabetes, hypertension and the metabolic syndrome.

9.4.2 Hypertension

Hypertension or high blood pressure is usually not symptomatic, and is often detected when one’s blood pressure is measured during a routine consultation, or when a patient presents with its dreadful complication of paralysis or stroke. Blood pressure, if left uncontrolled, can also lead to kidney failure, heart failure and blindness.

6 billion people worldwide (20%) have hypertension. Of these, only a small proportion is controlled. In Sri Lanka, the prevalence is 18.8% in men and 19.3% in women (Wijewardena et al, CMJ June 2005). A study reported to the Sri Lanka Medical Association by J Hettiarachchi and MR Mohideen

in 1986, in a community survey of randomly selected households in the urban area of Galle Fort revealed that the prevalence of hypertension was more among Muslims than in Sinhalese (40% vs. 26%). This was more significant in females. They also reported in the study that in over 35 year-olds, the prevalence of hypertension was higher amongst the urban population (40% vs. 10% in the rural).

9.4.3 Ischaemic Heart Disease

Ischaemic Heart Disease, in which the major blood vessels supplying the heart get blocked by cholesterol containing plaques and leading to angina, heart attacks and heart failure and even sudden death. Smoking, high blood cholesterol. Hypertension and diabetes are important risk factors. In our Opinion Survey of 105 Senior Consultants, Ischaemic heart disease was also observed by them to be amongst the top 5 diseases more frequently seen amongst their Muslim patients. More Muslim patients also were also seen to have high serum cholesterol values.

I made an attempt to get data from coronary artery by-pass programmes of two private hospitals and a semi-government hospital. The pooled data of three hospitals of different years revealed that in a total of 1860 patients undergoing by-pass operations, 10% were Muslims (10% in the private sector and 4% in a semi-government hospital). This is higher than the national proportion of Muslims. I believe that the actual proportion may be higher, as there is another group who go to India for by-pass operations. A similar trend was observed amongst Tamil and Muslim patients who go to India for kidney transplants. This is because of waiting lists.

Although this is not a reliable estimate, it would support the observations of the Opinion Survey that Ischaemic Heart Disease is an issue to the community and we must take preventive measures. Further research is necessary.

9.4.4 Obesity

Obesity is an emerging epidemic in the South Asian region in particular, as is diabetes. The prevalence of obesity in Sri Lanka is 20.3% in men and 36.5% in women (Wijewar dena et al, CMJ June 2005). An anthropometric study to look for central adiposity done by MR Mohideen et al in the Galle district in 1994 found there the body mass index (BMI), a measure of weight in relation to height, was significantly higher in Muslim women compared to Sinhalese women (22.4 vs. 20.8, $p<0.02$). There were no difference in waist-hip ratio was significantly higher in Sinhalese men than Muslim men (0.946, 0.919, $p<0.005$). These are related to diastolic blood pressure and serum cholesterol. In the "Quick Opinion Survey" in 2005, 88% of the consultants felt that Muslims were more frequently obese than their other patients.

9.4.5 Metabolic Syndrome

This is a entity now being recognised the world over that the association of Obesity, Diabetes , Hypertension, Ischaemic Heart disease, Hyperlipidaemia and many other conditions are linked and does have a central metabolic disorder and may be genetically linked. We need to do research in Sri Lankans and in our community if this indeed is a problem in our community.

The prevalence is on the rise, increasing with urbanization, the improving economic and industrial status, which has brought about a sedentary lifestyle and a "fast-food culture" and increasing life expectancy.

Taken together there is a strong message that the Muslim community has to take note of ..... i.e. to eat less, stop smoking, walk more. We need to eat less especially our traditional rice meals, reduce on the sweets and oily/fatty components of our meals and desserts and shun sedentary life s1yles and make a focused attempt at life style modification especially the need to exercise or at least a fast walk 20 minutes every day. If you take this message home and put it into practice even if you don't have any of these maladies right now, it will certainly keep you fit and healthy for longer. This is the most important message in this oration.

9.4.6 Chronic renal disease

Being a pioneer nephrologists in this country, I would like to show you an ethnic breakdown in some of my work in the tables below. We have done 50,000 dialyses since we started in 1985 and nearly 500 Kidney Transplants. Out of 1693 patients getting haemodialysed at Western Infirmary 18%. were Muslims.

Kidney Transplant Programme Data (Live Related) at two centers:

Centre A. University of Colombo NHSL Programme 1985 October to 2005 October

Recipient information

Ethnic Group	No. KTs	Percent (%)	Male	Female
Sinhala	369	76	72%	28%
Muslim	72	15	69%	31%
Tamil	35	7	77%	23%
Other	10	2	60%	40%
Total	486	100%		

Centre B **:** Indian Centers (Live non related) Follow up centre NHSL

Gender of the Donors

	Male %	Female %)
Sinhala	44%	56%
Muslim	62%	38%
Tamil	56%	44%
Other	83%	17%

Donor Information

Ethnic Group	No. KTs	Percent (%)
Sinhala	74	45.10%
Muslim	31	18.90%
Tamil	28	28%
Other	3	1.80%
Total	164	100%

In all the races, female donating to male is greater than vice-versa. Least common is a female donating to a female. There is no ethnic difference in this attitude. I recall with much pride the Muslim contribution to pioneering this branch of medicine and surgery and nurturing it for over 20 years with training younger generation of Nephrologists and Transplant Surgeons and catalyzing the growth of dialysing and transplanting Centers in many parts of the country.

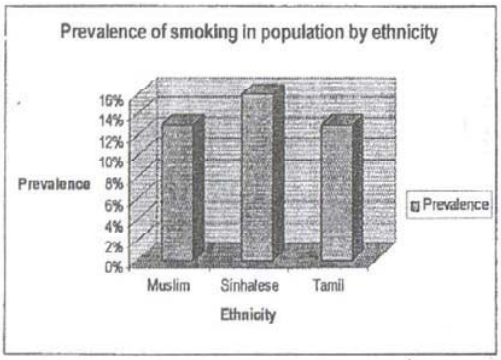
In this I thank my colleague Prof. A.H Sheriffdeen who worked very closely with me at the National hospital Sri Lanka to achieve this.

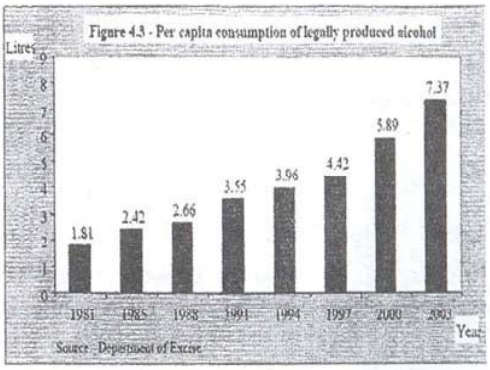
The message here is that diabetes and kidney failure are the leading causes of advancing kidney failure, and this is a growing menace in our community.

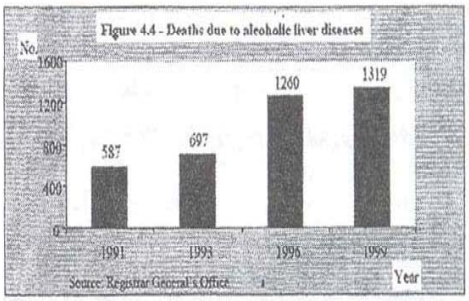
Screening for these is important in detecting these diseases early. I must emphasize the need for the Muslims of Sri Lanka to take steps to prevent, screen, and once diagnosed, treat and monitor lifelong to prevent the dreaded complication of kidney failure.

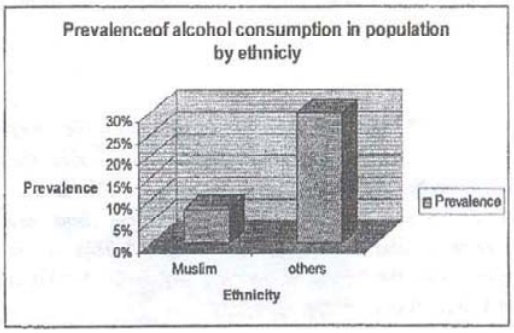
10 Lifestyle 10.1 Smoking and Alcohol

Smoking is a major and preventable risk factor which has come up earlier in the discussion



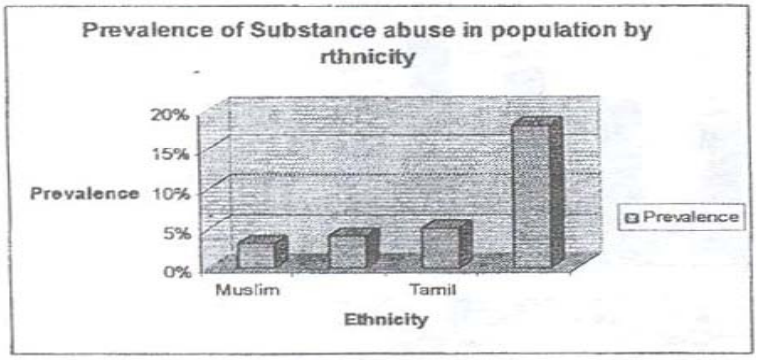






Source; A chart study on a large population in Colombo, 2005, Prof, L Rajapakshe et. al

Muslims have less prevalence in alcohol consumption. The prevalence of drug abuse is similar in all communities, but in the larger cohort studied in the general population there was a very high prevalence in burger community.



Source: A chart study on a large population in Colombo, 2005,Prof. L. Rajapakshe etal

Islam prohibits the intake of substances that are harmful to the body, addictive and stupor-inducing. Our beloved Prophet (PBUH) has said: "Do not harm yourselves or others." He also forbids taking any intoxicants. It is therefore quite clear that smoking, alcohol, and substance abuse are all **haram** (prohibited)

10.2Food

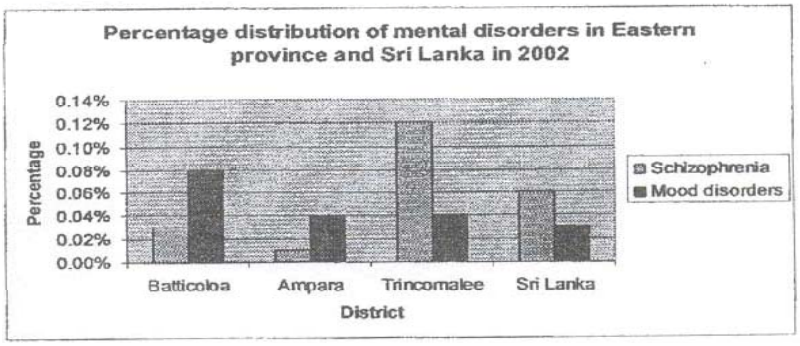
The holy Prophet (PBUH) says: "Never had man filled a receptacle worse than his own belly.It is sufficient for the son of Adam to have a few mouthfuls of food that provides him with the means of subsistence. If he cannot be restrained, then let him spare one third of the space for his food" one third for his drink, and the rest of the cavity for his breath." Islamic values; if upheld, can protect Muslims from the harms of over-eating. In Sri Lanka, it is not easy to find Muslims who follow this advice acidulously.

11 Mental Health

- Mental illness is extremely common. It has been estimated that some 376,000 Sri Lankans suffer from serious debilitating mental illnesses including bipolar illness, major depression and schizophrenia at any given time. Serious mental illness primarily affects people when they are young.
- About 10% the population is thought to suffer from other mental illness such as phobic states, obsessional disorders, somatoform disorders, mood disorders and other forms of delusional disorders. More women than men suffer from depression
- Sri Lanka has one of the highest suicide rates in the world.
- Other key issues which will affect the mental health of the population include the last 20 years of civil conflict and the recent tsunami. Between 20,000 to 40,000 people affected by the tsunami are expected to go on to develop mental illness, most notably depression and medically unexplained symptoms.
- Mental illness and alcohol abuse is the largest cause of disability in the world. There is a major problem with alcohol abuse in Sri Lanka.

Source: The mental health policy for Sri Lanka. Ministry of Health website http:// www.health.gov.lk/Documents/MentalHealthPolicy.doc

15.1 Mental Illness



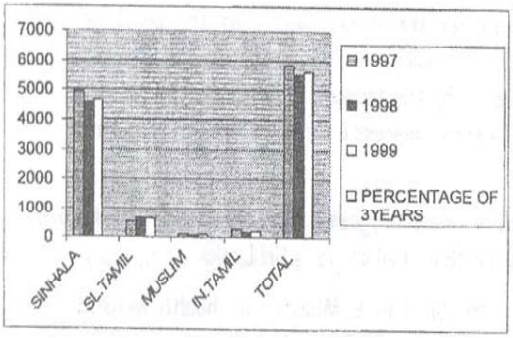
The prevalence of Schizophrenia is high in Trincomalee and mood disorders is high in Batticaloa compared to national levels.

11.2 Suicide

Poisoning

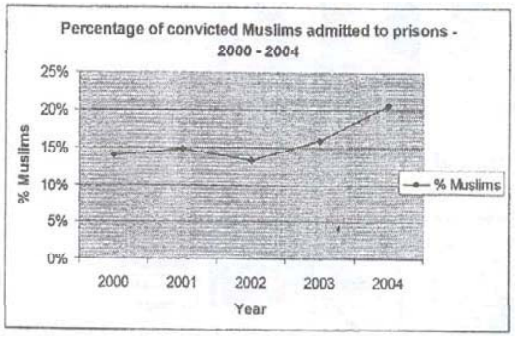
Out of 9,200 patients admitted with poisoning to Anuradhapura and Polonnaruwa general hospitals, 2.17% (200) were Muslim. Of the Muslims who attempted DSH, only 8 (4%) died - organophosphate 2, paraquat 3, oleander 2 , unknown pesticide 1.(SACTRC data)
The case fatality rates by poisoning in the Eastern Province are lower than the national figure (Annual Health Bulletin 2002; 3.27).

Figure 11.2: Suicides due to poisoning according to ethnicity



Source: Registrar Generals Department

11.3 Violence and Crime



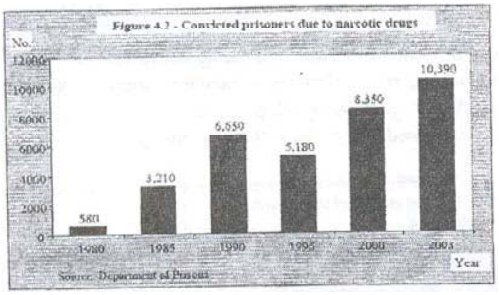
Source: Prisons Department, Ministry of Justice

11.3 Violence and Crime

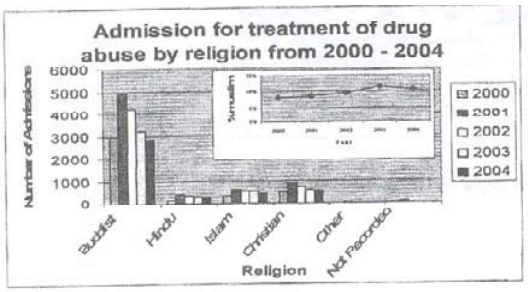
Individual community and environmental factors all interact in shaping the mental health of the individual. Psychosocially unsound inputs would result in increased crime rate in the community, and reflect the psychosocial health of the community. The increasing percentage of Muslims being convicted of crime over the past five years an alarming trend that the community should take note of. The religious counselors should give leadership to look for the causes and organize preventive measures to reduce crime in the community

11.4 Drug Abuse

There is increasing trend in convictions following narcotic abuse



Source : Prisons Statistics of Sri Lanka2005



Source: Alcohol & Drug Information Centre (ADIC)

The percentage of Muslims admitted with drug abuse for treatment has been showing a decreasing trend during the last five years, as depicted in the chart above. Since only very severe cases are admitted, this is only the tip of the iceberg. There appears to be a gradual decline in the numbers, which is a welcome trend. It may be due to effective preventive measures and the increase in education of adolescents regarding drug abuse.

12 Health seeking behaviour

A Muslim's degree of belief (Iman) will determine his health-seeking behaviour.

12.1 seeking treatment

Table 12.1:

Source of Treatment	Muslims %	All %
Doctor Consulted (Ayurvedic / Western)	44.7	49.4
Hospital Treatment (Out Door)	36.7	36.6
Hospital Treatment (Indoor)	11.9	7.7
No Medication	3.9	3.5
Self Medication	2.5	2.3
Other	0.4	0.4
Total	100	100

Source: Consumer Finances and Socio Economic Survey - 2003/04, Central Bank of Sri Lanka

12.2 Compliance

Poor compliance among Muslims was shown in our Opinion Survey.

13 The Tsunami

The most recent problem to all ethnic groups in Sri Lanka was the Tsunami. The Muslims living in the coastal region of the East were particularly affected.

Total Deaths 31,141 Total No. Injured 23,033
Total No. Missing 4,245 Total No. Displaced 575,727 Total camps: 262
(Source: Ministry of Health, Nutrition and Uva Wellassa Development website as reported by 14.02.2005 At 17:00 hrs)

Sizeable proportion of those afflicted by the Tsunami were Muslims and hence we are left with this big burden on top of the usual health problems.

14 Some notes on Muslim medicine

14.1 Black seed (Nigella sativa) oil

Nigella sativa

Active constituents - thymoquinone(TQ) , dithymoquinone(DTQ) , thymohydroquinone(THQ), thymol(THY)
Some clinical effects : (all animal studies) Increase Hb, haematocrit
Decrease in plasma cholesterol, triglicerides, glucose (Wiley interscience)
Anti-hypertensive, Diuretic , Protective gainst ethanol induced ulcers
Gastric secretion, Increased mucin content
Increased glutathione levels, Increased "free acidity" , Reduced histamine
Antioxidant activity - (by thymouinone, carvacrol, l-aethole, 4-terpineole) Protective against oxidative hepatotoxicity from carbon tetrachloride, tert-buty hydroperoxide (TBHP), cisplatin

Anti-nociceptive effect antagonized by naloxone - opioid receptors mediated Protection against murine CMV infection - increase M & phi nuber and function and IFN- gamma production Cytotoxic effect

14. 2 *Miswak*

'Siwak" or'' Miswak", a tree twig, is one of the most widely used oral hygiene devices since early times. The stick is obtained from the "araak" tree, *Salvadore Persica* that grows around Mecca and the Middle East area in general. It is widely used among Muslims after Prophet Mohammed (pbuh) realised its value as a device which should be used by Muslims to clean their teeth. In this respect our Prophet (pbuh)is considered the first dental educator in proper oral hygiene.

Salvadora persica is in fact a small tree or shrub with a crooked trunk, seldom more than one foot in diameter, bark scabrous and cracked, whitish with pendulous extremities. The root bark is light brown and the inner surfaces are white, odour is like cress and taste is warm and pungent. Chemically the air dried stem bark of S. Persica is extracted with 80% alcohol and then extracted with ether and run through exhaustive chemical procedures. This showed that it is composed of:

- Trim ethyl amine
- An alkaloid which may be salvadorine
- Chlorides
- High amounts of fluoride and silica
- Sulphur
- Vitamin C
- Small amounts of Tannins, saponins, flavenoids & sterols
- also substances that pocess antibacterial properties. astringents, detergents and abrasives

The results obtained in this investigation have proved that Siwak and other tree twigs 9 could act as an effective tool in removing soft oral deposits. It could be even used as an effective device in preventive dental programmes in mass populations. The indices used in this investigations were simple and adequate as they discriminated between experimental stages as well as between experimental groups.

It is noticed that the difference between first and fifth week of the mean score of plaque percentage for powdered Siwak is the highest (-11.2%) of all readings. This indicates that powdered Siwak is used with mechanically proper device i.e. tooth brush will give a great deal of oral cleanliness.

Although the commercial powder gave a high degree of efficiency in plaque removal yet its use over the experimental period gave a high score of gingivitis percentage within the group using the powder. It is true that plaque eradication is essential but this should not be on the expense of deleterious side effect on other tissues.

Source: Siwak as an Oral Health Device (Preliminary Chemical and Clinical Evaluation) Dr. M. Ragaii EI-Mostehy, Dr. A.A.AI-Jassem, Dr. LA.AI-Yassin, Dr.A.R EI-Gindy and Dr. E. Shoukry Kuwait
Literature also recommends to avoid excessive brushing:

Ibn Sina (Ali ibn Sina, op. cit., Kitaab 3, Fann 7, p. 184.) states in a chapter on the preservation of the health of the teeth that if someone wants his teeth to remain intact he should observe eight things:

1. He should not take too often certain kinds of food and drink which corrupt quickly in the stomach, such as milk, salt fish, sahna.92
2. He should not vomit continuously.
3. He should avoid chewing that which is tough and hard to chew (‘alik).
4. He should avoid breaking with his teeth] hard (sulb) things.
5. He should avoid that which sets his teeth on edge (mu.darrisiit).
6. He should avoid everything which is very cold, especially after something warm, and something which is very warm, especially after something cold.
7. He should persist in cleaning his teeth with a toothpick, but not in an extreme and immoderate way (min ghayr istiqii’ wa-ta’addin) which might cause injuries to the gums and the flesh between the teeth and remove it from there or move the teeth.
8. He should avoid those things which are especially harmful for his teeth, such as leeks,93 which are very harmful for the teeth and the gums, and the other drugs which I have mentioned in the chapter on the simple drugs.

Concerning the use of the toothpick, Ibn Sink makes the same reservation as Hunayn, namely, that one should use it in a moderate way. About the toothbrush he then remarks:

The toothbrush should be used in a moderate way (bi-l-i’tidal:), one should not use it to excess because this takes away the whiteness and moisture of the teeth and makes them disposed to receive the defluctions and vapours which arise from the stomach and which then cause a fissure. But when one uses the toothbrush in a moderate way one gets white and strong teeth and strong gums, one prevents rotten teeth (hafr), and it is good for foul breath.94

Source: The miswak, an aspect of dental care in Islam - Gerrit BOS. Medical History, 1993, 37: 68-79.

14.3 Bees honey

The Quran and the Prophet (PBUH) has emphasized the medicinal value of bees honey. It is rich in vitamins, calories and hyaluronidases, and has been particularly useful in chronic indolent ulcerations.

15 Conclusions

I have taken a long route in order to do a comprehensive tour of health in its broadest sense. I have highlighted many areas where Muslims have to take note of and do further research. This was my major objective.

There are gaps in Educational, Social, Mental” economical aspects with respect to the Muslims. I felt strongly that in most cases inadequacies pointed out, be it material or human resources or lack

of infrastructure was largely due to social factors rather than racial or religious factors. However the community needs to know their strengths and weaknesses. Hence more research is needed. Some important take home messages were given with respect to the alarming and increasing trends of Diabetes. Hypertension, Ischaemic Heart Disease, Obesity, Smoking and Kidney disease in the country and the inappropriately higher share of it in the Muslim community. The Community is advised to take a good inward look at their eating habits, sedentary life style smoking habits and overindulgence.

This calls for research. I suggest that a Sri Lanka Muslim Research Organisation be set up and well funded by the community with a technical committee to plan and fund research and an operational and implementing arm to get research into practice. Right through this discourse I referred to the Holy Quran and Prophetic practices with golden advice on every facet of life which could have an impact on the components of the broad definition of Health. Thus if we are to give the full WHO meaning to a healthy Sri Lankan Muslim Community we must advocate Islamic values in full measure in our lives.

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Articles

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