ADDRESSING THE SOCIAL AND ENVIRONMENTAL DETERMINANTS OF HEALTH

Address By

Upali M. Sedere PhD (Iowa)
Director General
National Institute of Education
On

“Equity in Education:
Opportunities and Challenges In A Changing Sri Lanka”

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“Equity In Education: Opportunities And Challenges In A Changing Sri Lanka”

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Equity:
Education plays a key role in determining how you spend your adult life – a higher level of education means higher earnings, better health, a longer life and by and large a better quality of life. By the same token, the long-term social and financial costs of educational failure are high. Those without the skills to participate socially and economically generate higher costs for health, income support, child welfare and social security systems. Equity implies the same for all. This is not an easy aspiration to realize because each and every one is different from the other. Disparity comes with socioeconomic status, because some are born to this world inheriting privileges and wealth, while another is born in poverty, ignorance and deprived. These disparities do come with congenital disease, ailments and physical handicaps and these congenital conditions makes one’s life more difficult and challenging than for the others who are born normal. The most common natural phenomenon of living is the individual differences. The challenge to all of us is how to ensure equity over and above these differences that each and every one is inherited with. How to include each and every individual on an equal footing taking the individual’s needs into account? Today this is even further complicated with the changing times, the speed of change, and the changing needs of society. Equity is to treat equally all disregarding gender, ethnicity, religion, socio-economic status, disability and geographical areas. The responsibility of a welfare government rests more on the efficiency and effectiveness of being fair by the poor than of the rich who are privileged.

Inequity and Poverty:
Inequity and poverty goes hand in hand. The poor are the ones who have no access to means and resource to change their lives. They are the ones who have no assets, no land and property. They are the ones who could have education as the only means of socioeconomic mobility. Education is the most recognized investment to overcome poverty and disparity that prevails over generations in the developing countries. The social benefits of investing in education are so high. It enhances socioeconomic equity; it empowers generations and promotes inter-generation mobility; increases labor productivity and the human capital; and produces a healthy population. Countries which made very early investments in education have progressed well. The social rate of return of primary education is as high as 15% - 20% and females benefit better than the males. The private returns of primary education are even higher than that and ranges from 19% to 25% again in favor of the females. The social returns of secondary education ranges from 18% to 20% and the private returns range between 22% and 25%. The recent economic analysis of Knowledge Economy indicates that every additional year of schooling in the population in a country contributes 6% to the economic growth. In fact the rate of returns is much higher in countries where education has not spread well than in the countries that are already having a literate and educated population.

In case of Sri Lanka, the free education policy particularly after the spread of the Maha Vidyalayas in the 1960s, provide a greater opportunity to rural children to continue education and this provided a greater social mobility to all. Today Sri Lanka is experiencing inter-generation mobility. Even with the expansion of free education and Maha Vidyalayas to the rural areas, yet there were marginalized families or
communities who did not reach free education or those who were ignorant of these facilities simply due
to lack of understanding the long term or the inter-generational mobility or the impact of education.
These are the impoverished sector of our community even today who do not continue on to secondary
education. Though 98.5% enter grade one, only 89% enter the secondary school. Out of the 98.5% about 18% do not achieve sufficient mastery of basic skills. These children belong one way or the other to the marginalized groups. They are either in poverty or are impaired. These marginalized will not be able to benefit from education unless the government takes special interventions to reach them and sustain them through the phase of compulsory education.

The Diagram 1 presents the Multidimensional Poverty Index MPI (2010) recently developed by the World Bank. The MPI is based on ten indicators and these ten relates to Education, Health and Living Standards. Education and health are two sides of the same coin. When both work in the right direction these enhances each other. Good health is important to schooling and success in education. On the other hand sound education strengthens personal and community healthy. A satisfactory living standard will never come if health and education are deprived, denied or not maintained by any person.

Changing Sri Lanka

Sri Lanka has certain inherent characteristics that we have to take serious note of because these contribute to disparities and inequalities. Sri Lanka is a multi-ethnic and multi-religious population in excess of 20 million people. We have had a 30 year civil war and its impact on many ethnic groups, communities, and marginal populations have created disparities and inequities. We also have approximately 1.5 million or 05% of the population serving as migrant workers and many are female workers and many children do not have adequate care and protection. The demographic characteristic of the population is changing and the age structure inclining to have a greater percentage of senior citizens. The long existed population pyramid is in disarray. The longevity of life and life expectancy at birth have steadily increased and has reached 75 years. The economic disparity is widened over the last few decades. There is an obvious rapidly changing life style amongst the Sri Lankans, more so in the 25% urban population. The modernization with media, information technology, mobile phones etc are all here and are new behavioural variables affecting us, are more so to the children.

EFA & MDG:
Education For All (EFA) - (March 1990), and the Millennium Development Goals (MDG) are some of the significant global initiatives to address these disparities through education. Bringing everyone to the main stream of education had been a success story in Sri Lanka, particularly when compared with the many of other developing countries in neighboring Asia and Africa. Today in Sri Lanka, 98.5% of the 05 years olds enrolled in schools, over 89% completes the 09 years of compulsory education, 85% goes all the way to GCE O/L and 55% enters GCE A/L.

Health sector is another sector that we as Sri Lankan can be happy of. In fact education and health goes hand in hand. If you simply look at the maternal mortality figures one would see a direct correlation with education. Sri Lanka’s literacy rates from 1970s to year 2000 shows a very strong positive correlation with the health sector performance. The percentage of child delivery in maternity clinics/hospitals and the infant and child mortality correlates very high with literacy rates and level of education of the mothers.
If the access to free education was not available to the poorer sector of the population, would Sri Lanka achieve such highly satisfactory levels of health sector performance? It is the free education policy in Sri Lanka that provides equity in education. Sri Lanka also has achieved gender parity to a larger extent and at all levels of the educational ladder from primary school to the university education there is gender equity. However, in the changing times of Sri Lanka and in the global society there are new equity concerns and unless and otherwise these equity concerns are not addressed the disparities could be widened.

The EFA and MDG emphasis is more on access to quality basic education. Today these are shifting way beyond these basics. Sri Lanka has new equity concerns to address. On one side these come from the changing demographic dynamics in Sri Lanka and on the other side is the emerging trends and the new challenges due to the advancements in the field of education.

The changing population dynamics have brought about new internal efficiency issues. The school system in Sri Lanka is faced with an equity threat due to the declining student numbers.

### Changing Demography Dynamics and Equity

**Declining Student Numbers:**
Sri Lanka’s population growth has slowed down. This is largely due having an educated population. The population growth rate has come below 1% level and in many sub-districts in urban areas the growth rate is below ‘0’ -- minus. The child population in the age range of 0 - 4 years has declined by 26% between 1998 and 2007, and its implications on the education system needs to be examined from the equity perspectives. **Table 1** provides the changing demographic picture of the schooling aged population over the decade. The impact of the -26% of the age 0 – 4 children will be seen over the next decade 2008 through 2021 as they move on to higher classes from Grade 1 to Grade 13.

<table>
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<tr>
<th>Age Range</th>
<th>Population in’ 000</th>
<th>% of Change</th>
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<tr>
<td>1998</td>
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<td></td>
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<tr>
<td>0 – 4</td>
<td>2345</td>
<td>1730</td>
</tr>
<tr>
<td>5 – 9</td>
<td>2128</td>
<td>1781</td>
</tr>
<tr>
<td>10 – 14</td>
<td>2136</td>
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<td>20 – 24</td>
<td>1931</td>
<td>1841</td>
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</table>

The Middle Class Population:
Further, in Sri Lanka with the expansion of education, nearly 89% receiving secondary education and 55% going all the way to GCE Advanced Level, the middle class population has significantly increased. The aspirations of the middle class parent are always competitive. They seek more social identity and equity. Their awareness about social equity is much higher and the right to free education, equity and quality issues are much known to them. This behavioral character also has implications on the school system. The young parents who are now admitting children to Grade one are much more educated than the parents who admitted children to schools a few decades ago. Over 80% of these young parents have had secondary education and they all look for a good school for their child. In year 2010, Sri Lanka had 120 schools where no parent sought school admission to Grade one because these schools were
considered or rated by the parents as weaker schools. The disparity between and amongst the schools was always there and those will be there even in the future. Yet, with the changing demographics the impact of this behavior on the school system has led to new equity concerns to be addressed.

**Equity and Learning Climate:**
The major equity concern comes with the changing school sizes. Education is not merely a child going to a school. Children need a learning climate that is conducive to learning. Children learn more of their life skills from the other children than from the teachers. Therefore, the lasting social skills, emotional maturity and many of the soft skills those are more demanding today than ever before mostly comes from the peer association and also from various co-curricular activities. The co-curricular activities work better when the school has an adequate number of students and diversity of talents that comes with different children. Therefore, a reasonable class size and the school population are important conditions for learning. This has another side to it as well. The formal education is delivered mostly by the teachers. Teacher motivation and teacher’s interest are fundamental to become a motivated and a committed teacher. When a teacher has only two or three students in the class and only 10 students in the five or eight grades in a school, would the teacher be motivated? Will a teacher wish to work in a school like that? The examination results of the popular schools in Sri Lanka show that even with 50 students in a classroom, schools such as Royal College, Vishaka Girls College, etc, have produced not only the best results but also 100% success rate to every student in the class. It is true that there are many other factors behind student achievement; nevertheless, these popular schools do have the learning climate that motivates the student and the learner. Beside the academic achievements the students in the bigger schools do have more opportunities to be involved in a variety of co-curricular activities. Such is not possible when a school is too small. The children in such schools have much less opportunities to socialize, exert and develop their other potentials, interests and creative thoughts.

**The Distribution of Small Schools:**
The Table 2 provides a macro picture of the distribution of small schools in Sri Lanka in year 2008. Table 2 shows that there were 131 schools with a school size of 07 children and 515 schools with a school size of 19, and 910 schools with an average school size of 39 students. There are 766 schools with a school size of 63 students and 766 schools with an average school size of 89 students. This means that over 30% of our schools today are having less than 100 students. This shows that children who are currently studying in 30% of our schools are handicapped in their personality development programs due to not having a suitable learning climate in their schools.

**Equity, Elitism and Small Schools:**
Further, if one examines who are the children who are left behind in these schools, it becomes even a more serious equity issue because these are children whose parents either were not interested and ignorant in admitting their children to better popular schools or children whose parents tried their best to find a better school and failed to admit their child to a popular school. In reality, this means that the affluent parents manage to admit their children to popular schools and less affluent and the impoverished parents admit their children to such small schools. The equity concerns are even greater as we are talking about free education by the State. Free education in Sri Lanka is towing towards elitism. Opportunity of getting a better school for your child very much depends on the amount of influence that one can exert on the politicians, and bureaucrats and how much one could manage to prove evidence at various levels to qualify for admissions. These are gross violations of equity concerns and unless and otherwise these are resolved, the expected role of education to mitigate disparities may bring adverse outcomes.
Teacher Deployment and Equity Concerns:
In the changing times of Sri Lanka, the political aspiration is there to provide every child equitable opportunities to education. However, authorities have terribly failed to deploy teachers on equitable basis to ensure equity for the students. The urban vs rural disparity has widened. Urban schools and the schools located in more accessible areas where teachers find more comfortable living are having more than the required number of teachers. At the same time the students in schools in the less accessible and remote areas suffer from a severe shortage of teachers. Resulting from the 30 year ethnic war the disparity between Sinhala and Tamil schools is high. Sri Lanka has over 220,000 teachers for the 4million students. The teacher pupil ratio stands as 1:18 in year 2009. There are school districts having a teacher pupil ratio as low as 1: 12 (Kandy). At the same time there are schools with a serious shortage of teachers. The shortage is also for some more demanding subjects such as Aesthetics, English, Math and Science. The teacher deployment is one of the factors that create inequity in education. In the changing times every child has to learn English, IT, Science and Soft Skills to reap the benefits of global economy. In Sri Lanka today only 580 schools offer GCE A/L science. Though 55% continues to GCE A/L the larger number is in Liberal Arts. These are serious inequities. Affirmative steps are needed to bring equity on these lines to all.

Digital Divide and Equity Concerns:
Only 3,500 schools out of the 6,000 secondary level schools, including the Type 1 schools, provide computer education. The distribution and the availability of computers in schools show how the children of rural poor are ignored and inequity is institutionalized at school level. The schools where the children of the elite attend have acquired IT facilities through many avenues that naturally comes their way due to being popular schools. Moreover, many of the students who come from affluent homes have also provided these children the Computer and internet facility at home. Whereas the rural schools are ignored by the government channels as well as they have no other avenues to acquire such facilities for their students. The Digital Divide is the new disparity that would deny empowerment to children. This is a global situation and Sri Lanka is experiencing the same.

Inequity and Poverty
When the above factors are considered it is obvious that socioeconomic disparity is due to poverty. The Table 2 presents a Macro Analysis of the School System in Sri Lanka. Table 2 shows that there are 2,948 schools (30% are small schools) got 148,300 students out of 3.93million students or 30% of the schools in the school system is having 3.7% of the student population. These students are the really marginal poor in a society where we still have 14% below poverty line of earning less than a Dollar –A-Day. Further if poverty statistics is transposed on school statistics in general terms about 786,000 students of the school populations comes under the 20% of the lowest income earning population and they are the ones likely in schools with less than 300 students. There are exceptions, yet in general the Sri Lankan parents with even a little influence admit their children to a close by school to their residence which has a better standing. The 720,000 - (20% of student enrollment), children who are now enrolled in the 6700 schools with less than 300 students - (63% of the schools), are the socioeconomically weaker ones. Further analysis of data further confirms the institutionalization of social disparity in education sector. The formal education system in all developing countries perpetuates poverty and an endorses and reconfirms further cultivation of social class disparity (Sedere 2000)¹

¹ Sedere Upali M (2000); Globalization And Reforming Education – The Crisis of Vision: Universal Publishers, Florid, USA
Many of these children either drop out or graduate without acquiring the basic competencies. The recent studies by NIE show that about 20% of the primary school children graduates without achieving the basic skills. Even if any of these children enter grade 6, the secondary education phase, either remains a slow learner or eventually drops out.

**Education Health and Challenges**

When the interdependence of health and education is taken, a person’s quality of life largely rest on education that he/she achieves. Perhaps it is difficult to say which one, is it education or health has a bigger impact on a person’s quality of life. The theory on the demand for health suggests that schooling causes health because schooling increases the input mix chosen to produce health. This suggests that the more educated have more knowledge about the health production function and they have more health knowledge -- (NBER Working Paper No. 16422, September 2010; Grossman’s (1972 ) Human Capital Model). Grossman (2000) identifies schooling increase the quantity of health demanded. In Grossman’s model schooling causes health because schooling increases the efficiency of health production. Numerous studies provided evidence for the causal impact of schooling on health (Chou, Liu, Grossman and Joyce 2010, Conti, Heckman and Urzua 2010, Lleras-Muney 2005, Currie and Moretti 2003, Berger and Leigh 1989). However, it has also been suggested that schooling influences health mainly through its impact on efficiency.

The NBER (2010) study concludes that schooling has an impact on health knowledge for the questions about the association between drinking and arthritis, and the questions about pregnancy more interestingly, an additional month of schooling increases the probability of answering these health questions correctly by 0.3 to 0.9 percentage points. However, schooling has no impact on the index based on alcohol-related health questions. The NBER study concludes stating that “there exists a large body of empirical evidence pointing to a causal effect of education on health (Conti, Heckman and Urzua 2010, Chou, Liu, Grossman and Joyce 2010, Lleras-Muney 2005)². However, the exact mechanism behind the impact of education on health is less clear. Standard theoretical models of health capital, which trace back to Grossman (1972a) predict productive efficiency of education where an increase in schooling improves the efficiency of health production by raising the marginal products of inputs. More schooling could also enable people to understand better the exact nature of a health production function. Thus, in this “allocative efficiency” approach, education improves health knowledge, which in turn translates into a better choice of health inputs.” - (NBER 2010).

The formal school curriculum is the best way of reaching every child and to an extent the households to take health messages home. Inclusion of health skills in education enhances the quality of the content of education, by addressing issues relevant to the lives of learners. At present, it is often applied to health and social issues which are not traditionally included in the academic curriculum and which demand the

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² Duha Tore Altindag, Colin Cannonier and Naci H. Mocan (2010): THE IMPACT OF EDUCATION ON HEALTH KNOWLEDGE: NATIONAL BUREAU OF ECONOMIC RESEARCH1050 Massachusetts Avenue Cambridge, MA 02138 September 2010


adoption of positive behaviours by young people (e.g., health, human rights and gender equality). However, skills-based content and methods can also enhance the quality of traditional subjects such as literacy and numeracy by making them more relevant and engaging for the learners. (www.unicef.org/lifeskills/). Sri Lanka has many of these included. Yet, in the changing times there are new health education issues to be addressed and the school curriculum needs to include these.

The case of Dengue Haemorrhagic Fever (DHF) is one of the leading causes of hospitalization and death in children in the recent days. The Southern Viet Nam achieved a high degree of success of controlling this through the schools. The Avian Flue and Chikungunya Viral Flue are all new experiences for the world. With the expected climate change, environmental conditions will change and new diseases are to spring up. The mosquito has more resistance when global temperature increases. Similarly the world experience the threat of HIV/AIDS and these were very much dependent on human behaviour. Education is the best way of shaping human behaviours. Though Information Technology and Globalization and Media has done immense good, at the same time these modalities also have given us new behavioural challenges in the changing times.

This situation is even more serious at a time the parental guidance and supervision of children at home also is slimming than before. Many homes are single parents due to mother’s migration to work in the Middle East, and /or due to being deployed outside homes for employment. With expansion of global economic and its work culture, more and more such problems would increase. The parent has a strong influence on their quality of life, nutrient intake and food consumption. Media brings wrong messages to children in homes. Peer influence has increased to a greater amount than parent influence. Fast food, high-sugar concentrated beverages and processed food are all alarming health challenges. In addition to this lifestyle change, we have other problems producing a serious impact on the prevalence of diabetes in the country. The effect of diabetes could involve not only the physical health of the individual but also his/her socio economic status as well that of the whole country. Diabetes afflicts people during their most productive years of life. Damage to vital organs may lead to severe physical disability and therefore his/her capacity to earn a living. Affliction of a large number of people affects the economy of the country.

A cross-sectional study conducted in Sri Lanka between 2005 and 2006 indicates the following rate of prevalence of diabetes3.

* Standardized prevalence for Sri Lankans aged ≥20 years – 10.3%
* Prevalence in the urban population was 16.4%
* Prevalence in the rural population was 8.7%
* Prevalence of pre-diabetes in urban and rural population was 11.5%
* Overall prevalence of some form of dysglycaemia (sugar problems) was 21.8%

If 22% of the population suffers from some form of diabetes, a host of other diseases follows diabetes. Unless our system of education identifies such challenges and provide the necessary preventive measures, the public health system may not be able to keep up with the growing challenges in the changing time of Sri Lanka. It is very important that we develop an inter-sectoral approach to deal with education, health, social welfare, agriculture, industry and information management to bring about more effective strategies to address these emerging challenges.

3 http://www.diabetessrilanka.org/latest_figures.php
Table 2: Macro Picture Of Distribution Of Schools And Students in Sri Lanka in Year 2008

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<tr>
<th>Range</th>
<th>NO of SCHOOLS</th>
<th>ICF-SCH</th>
<th>CF-SCH</th>
<th>Total students</th>
<th>ICF-STU</th>
<th>CF-STU</th>
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Diagram 1 Multidimensional Poverty Index