Global Health Security: Addressing Social Determinants of Health through programmes and other initiatives

Sivan Yegnanarayana Iyer Saraswathy

Associate Professor in Social Research, Department of Community Medicine, PSG Institute of Medical Sciences & Research, Coimbatore, India

ABSTRACT

Introduction: Addressing social determinants of health (SDH) from a global health security perspective is important especially in low and middle income countries. Socioeconomic status, cultural, political and behavioural factors influence health and disease of the people. This paper seeks to describe how government programmes and other initiatives are expected to play an important role in addressing SDH and thereby improving health of the people. The analysis addresses both health and social policy issues.

Context and Aim: The study assumes importance in view of India moving towards strengthening health and social security of its people through several policy-driven initiatives.

Methods: This analysis classifies the 100 plus programmes launched by the Government of India into health, education, nutrition, social security, etc., and compares available indicators (2000–2018).

Findings: The initiatives of the Government of India are expected to improve health and social security of its people, with focus on addressing health as well as social inequity. One of the programmes (Swachh Bharat Mission – clean India mission) has helped in avoiding 300,000 child deaths. Official survey results are not available for all indicators.

Innovative contribution to policy, practice and/or research: Analysis of Government of India’s policy-driven programmes and other initiatives with focus on livelihood improvement indicate that they are contributing to ensure health and social security; and are worth replicating in similar settings.

Background

Health security is influenced by, among other things, livelihood and social security. Therefore, addressing social determinants of health (SDH) with focus on improving livelihood is essential to achieve health security. Due to the influence of the social gradient in health phenomenon, those living in the lower socioeconomic strata of the society are more affected, less prepared in responding to emergency situations and therefore, these population groups need to be specially included in health security initiatives. Doing so would not only provide social and health protection to the lower SES categories but also improve health security, and thereby lessening the burden on the health system. This paper aims to suggest as to how a policy-driven model could work, with India as a case.

The SDH-Livelihood-SES-Health Security Model

The next era of global health will be judged by its political capacity to ensure global health security, build universal health coverage, address the commercial determinants of non-communicable diseases and reduce global health inequalities. (Kickbusch & Game, 2013) Global health security involves not just the public health and regulatory components, but it involves improving livelihood and socioeconomic status (SES) of people so that they are better prepared to meet health emergency situations, by addressing the SDH. SES is a predictor of a person’s life chances, which in turn predicts a person’s ability to, among other things, respond in emergency situations, taking measures to prevent diseases and utilisation of health care services. Data on the COVID-19 pandemic threw light on the racial disparities in contracting the disease. (Oppel Jr. et al., 2020) Social inequalities translates into health inequalities. There is a social gradient in health that runs from top to bottom of the socioeconomic spectrum. This is a global phenomenon, seen in low, middle and high income countries. (WHO, 2019a) While the social gradient in health phenomenon applies to all countries, it is all the more important for low and middle income countries – the poorest of the poor, around the world,
have the worst health – evidence shows that in general, the lower an individual’s socioeconomic position, the worse their health.

Reducing health inequalities is one of the most important challenges, and that is why addressing SDH has become all the more important. Addressing SDH in turn involves improving livelihood of people (i.e. by placing fairness at the heart of policies), leading to improvement in their SES, more so when it comes to improving health of the population and reducing exposure to diseases that pose a threat to health security of a large number of people. (Figs. 1 & 2).

Human security means not merely the absence of violence and conflict, but it encompasses human rights, good governance, access to education and health care, and ensuring that each individual has opportunities and devices to fulfill his or her potential. (United Nations, 2020) When human security is attained, the nation is safe in terms of health security, to some extent (by still leaving room for risk factors which are external to it). It may be noted that inequalities based on SES might even lead to unrest in the society, rendering it vulnerable in health emergency situations. It may be noted that ‘extreme poverty, premature mortality and ill health are increasingly concentrated in settings characterized by fragility and conflict often within otherwise stable countries’. (WHO, 2019b) During the COVID-19 lockdown, the world has witnessed internal disturbances in certain pockets where socioeconomically vulnerable populations live (due to loss of wages, migrants stranded at faraway places with limited resources for food, lack of transportation to home villages, etc.).

The SDH-Livelihood-SES-Health Security model suggests achieving health security through a humane health approach; the ‘human’ part being taken care of by initiatives aimed at improving livelihood to address SDH.

Methods

This analysis intends to establish that government initiatives (includes policies, programmes and legislations), when mainstreamed with livelihood improvement, contributes to addressing SDH and facilitates achieving health security. Some focus is given on India and a few best practices are cited from Kerala State, India. Descriptive method is used for analysis. The SDH include education, empowerment (status) of women, environment, sanitation, drinking water, housing, health and healthcare, nutrition, etc.

Major domains and/or indicators are described first (in which programmes are required with the help of rationale for rolling out initiatives in a few cases) to generalise the impact of such initiatives including programmes (wherever government statistics are available) based on the premise that SDH, livelihood improvement and health security are all interconnected. Figs. 1 & 2 are used to establish the linkages. Since the programmes are of recent origin – newly launched or re-organised – statistics may not be available for all. However, the rationale for choosing beneficiaries viz., those who fall below poverty line, is sufficient to establish the link between SDH, livelihood improvement and health security. There are no studies that establish a link between all three. This study intends to fill that gap. Some of these linkages are depicted in the diagram (Figs. 1 & 2). While Figure 1 intends to provide a conceptual diagram with some of the specific initiatives mentioned therein as examples, Figure 2 provides a generic picture on linkages.

Definition of concepts

Before we describe the methodology we used, we define several concepts:

Health security: The WHO defines global health security as the activities required in minimising the danger and impact of acute health events that adversely impact upon the health of people living across geographical regions and international boundaries. (WHO, 2020b)

The Sydney Statement defined global health security as a state of freedom from the scourge of infectious disease, irrespective of origin or source. Health security is achieved through the policies, programmes, and activities taken to prevent, detect, respond to, and recover from biological threats. (Global Health Security Conference, 2019)

Social Determinants of Health: The social determinants of health (SDH) are the conditions in which people are born, grow, work, live, and age. At the macro-level, it involves policies, programmes and legislations; and other political actions taken by the government in addressing social factors influencing health. (WHO, 2019c)

Livelihood: Livelihood is a key SDH that requires attention. Livelihood may include capabilities, assets (including material, financial and social resources) and activities required for a means of decent living. Sustainable livelihood is characterised by ability to mitigate, resulting in resilience in emergency situations with long term benefits but at the same time without exhausting the natural resource base. (Chambers & Conway, 1991) Together with socioeconomic status (SES), livelihood can be seen to link the SDH to health security.

In order to evaluate which of the SDH facilitate achieving health security, several SDH were selected
and several indicators of health security. Some of these were selected because existing data/linkages are readily available. Table 1 presents a selection of the SDH, their links to programmes initiated by the Indian Government, and an example of the metrics used to evaluate the success of the programme. Linkages between SDH and Health Security are shown in Figs. 1 & 2.
Results and Discussion

The Government of India administers close to 200 initiatives in the areas of social and health protection, mostly in the form of programmes in various sectors. (It is not feasible to discuss all the programmes in a single paper, and so selected ones are discussed here.) The element of livelihood improvement and SES run across all these programmes. While some of these are universally applicable to the population, some are criteria-based and therefore limited to socioeconomically disadvantaged sections of the population. In many cases, SES indicators based on the Socio Economic and Caste Census (SECC), 2011 (Ministry of Rural Development, Government of India, 2019) are used but other criteria are used in certain other cases, such as the poverty line criteria (Planning Commission, 2011–12) or type of house to determine eligibility for admission into programmes (selection of beneficiaries) and benefits. These criteria address SES, an important SDH. Health security is closely related to human security. Ayushman Bharat, the flagship health protection scheme (aimed at achieving universal health coverage) of the government is a case in point (see description elsewhere in this paper). A snapshot of the major areas in which initiatives are taken by the Government of India is shown in Figure 3.

Table 2 helps to understand as to how the Government of India programs are linked to improving health security and some of the rationale behind the programs based on national survey results and provide good examples of metrics and the intricacy of each of the different aspects of livelihood and SES with respect to health security.

National programmes of the Government of India which stem from relevant policies and results of national surveys (health, nutrition, education, children, etc.), cover areas such as health, education, agriculture, food, nutrition, housing, sanitation and social security. Implementing these programmes helps not only in reducing social and health inequalities but also in fulfilling international commitments by the country in the health sector – less life threatening communicable and infectious diseases, for example. (It may be noted that polio eradication is hampered by the cross-border spread of poliovirus via infected travellers). A list of such commitments – (in the form of Memorandum of Understanding, Legislations, Treaties, Covenants, Conventions, etc., is available for reference in the website of the Ministry of External Affairs, Government of India). (Ministry of External Affairs, Government of India. Documents – Treaty/Agreement).

Data from national surveys provide the background for intervention by the government. The National Portal of India lists the interventions addressing almost all these issues by the government. (Government of India. National Portal of India.
Table 1. Shows the linkage between SDH, livelihood and health security.

| Govt. Programme | SDH                                                                 | Livelihood-SES                                      | Health Security Metric                  |
|-----------------|----------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------|
| ICDS            | Improvement in cognitive development; family SES, (and at the macro level, improvement in demographic dividend). | Promotes school enrolment; better chances of studying and earning more. | Early child development, nutrition,     |
| BBBP            | School enrolment improves, empowerment of the girl child             | Wantedness in the society, better education, savings | Maternal health and sex ratio improves. |
| SBM             | Eases burden of disease                                             | Number of toilets in homes                          | Child deaths due to diarrhoeal diseases less by 300,000 |
| SBM             | Improves culture                                                    | Number of toilet in homes                          | Improvement in women’s safety and honour |
| SBM             | Eliminates food and water pollution                                 | Better produces without contamination               | Eliminates open defaecation; improved environment, less morbidity |
| Ayushman Bharat | Ensures Livelihood through better health                             | Access to health insurance                         | Improved healthcare, decrease in families in poverty from healthcare costs |
| Ujjwala Yojana  | Eases burden of disease                                             | Clean fuel made affordable to poorer sections       | Decrease in asthma cases, other respiratory illnesses |
| Agriculture     | Food security                                                       | Irrigation training; supplemental income            | Increase in farmer income               |

Data (wherever available, e.g. number of beneficiaries) are presented along with names of programmes; more are available from the Government of India Performance Dashboard (Government of India. Transforming India: Performance Dashboard. [GoI, 2020]). However, data on impact of most of these programmes are not yet clearly available. Data are available for Swachh Bharat Mission (clean India mission), as a result of which almost 100% of the population now (from 48% in 2015) have access to toilet (Department of Drinking Water & Sanitation, Ministry of Jal Shakti, Government of India, 2020).

The Livelihood-SDH-Health Security linkage: Selected Government Programmes

These programmes are presented here as examples to highlight the linkages between livelihood, SDH and health security. As shown in Figure 1, Livelihood improvement and addressing SDH through government initiatives help in respondig to health security situations, better and faster chances of mitigation and resilience, and thereby achieving health security.

1. **Swachh Bharat Mission addresses SDH, eases burden of disease**

Those who are in the lower SES strata are more likely to have household without toilet. They have now been benefitted with the advent of the **Swachh Bharat Mission**. The benefits are not restricted to having just a toilet in the household as evidenced by the following facts:

- According to WHO-South East Asia Regional Office (SEARO), for example, the **Swachh Mission** (SBM), is expected to help in averting 300,000 child deaths due to diarrhoeal diseases and protein-energy malnutrition (PEM) since its inception in 2014 till 2019 (WHO, 2019).
- SBM is a boon to women who had to wait until sunset to relieve themselves as many villages lacked toilets.
- SBM improves their safety and honour as the toilet is constructed within the house premises (no need to wait until dusk to relieve themselves in the bush).
- All schools and Integrated Child Development Services (ICDS) Scheme-Anganwadi Centres (child care centres) have toilets. Schools have separate toilets for girl and boy children, contributing to improved school enrolment attendance of girls (in other words, less drop outs).
- SBM helps in (i) eliminating open air defaecation; reducing (ii) soil contamination; (iii) ground water contamination; (iv) drinking water contamination; and (v) food contamination – thus improving the sanitation and health conditions.
- Furthermore, WHO has observed that ‘improvements in water, sanitation, hygiene and water resources management could result in the reduction of almost 10% of the total burden of disease worldwide including malnutrition, malaria, other infectious disease.’ (WHO, 2019d)
Ayushman Bharat (aka Pradhan Mantri Jan Arogya Yojana – PM-JAY) – Addressing SDH-Livelihood-Health Security

Government of India’s flagship health protection scheme, Ayushman Bharat (GoI 2020) covers 40% of the country’s population. Before the introduction of this programme, 85.9% of rural households and 82% of urban households had no access to healthcare insurance/assurance. More than 17% of Indian population spends at least 10% of household budgets for health services. Catastrophic healthcare related expenditure pushes families into debt, with more than 24% households in rural India and 18% population in urban area having met their healthcare expenses through some sort

---

Table 2. Selected social indicators for India and Rationale for intervention in livelihood improvement.

| Indicators                                                                 | NFHS 4 (2013–WHO., 2019) Urban % | NFHS 4 (2013–WHO., 2019) Rural % | NFHS 4 (2013–WHO., 2019) Total % | NFHS 3 (2005–06) Total % |
|---------------------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------|--------------------------|
| Selected social indicators for India: Education, sex ratio                |                                  |                                  |                                 |                          |
| Literacy, Female                                                          | 81.4                             | 61.5                             | 68.4                             | 55.1                     |
| Literacy, Male                                                            | 90.8                             | 82.6                             | 85.7                             | 78.1                     |
| Women with ≥ 10 Years of Schooling                                        | 51.5                             | 27.3                             | 35.7                             | 22.3                     |
| Women 20–24 Yrs married before 18 Yrs                                     | 17.5                             | 31.5                             | 26.8                             | 47.4                     |
| Sex Ratio of total population                                            | 956                              | 1009                             | 991                              | 1000                     |
| Sex Ratio of children born during the last five years                     | 899                              | 927                              | 919                              | 914                      |
| Livelihood & Rationale for Government’s Intervention: Selected indicators for India on Drinking Water, Sanitation, Electricity |                                  |                                  |                                 |                          |
| Households with an improved drinking water source                         | 91.1                             | 89.3                             | 89.9                             | 87.6                     |
| Households using improved sanitation facility*                           | 70.3                             | 36.7                             | 48.4                             | 29.1                     |
| Households with electricity                                               | 97.5                             | 83.2                             | 88.2                             | 67.9                     |
| Households using clean fuel for cooking                                   | 80.6                             | 24.0                             | 43.8                             | 25.5                     |
| Livelihood & Rationale for Government’s Intervention: Health              |                                  |                                  |                                 |                          |
| Households with any usual member covered by a health scheme or health insurance | 28.2                             | 29.0                             | 28.7                             | 4.8                      |
| Institutional Births                                                      | 88.7                             | 75.1                             | 78.9                             | 38.7                     |
| Institutional Births in public facility                                  | 46.2                             | 54.4                             | 52.1                             | 18.0                     |
| IMR                                                                       | 29                               | 46                               | 41                               | 57                       |
| USMR                                                                      | 34                               | 56                               | 50                               | 74                       |

Source: National Family Health Survey (NFHS) 3 & 4; Ministry of Health & Family Welfare, Government of India

According to Census of India 2011, there are 450,000 houseless families in the country.
of borrowings. (Press Information Bureau, 2019) The programme is meant for the poor and vulnerable population; and the beneficiaries are selected from the Socio-Economic Caste Census (SECC) 2011 data (Ministry of Rural Development, Government of India, 2019), and so the SDH are addressed to some extent, and the livelihood of the beneficiaries is poised to improve by saving the cost of healthcare including out of pocket expenditure.

- Approximately 107.4 million identified families (approximately 500 million beneficiaries) are entitled to get the benefits. There is no cap on family size and age, or restriction on pre-existing conditions.
- The PM-JAY will provide coverage up to Indian Rupees (INR) 500,000 per family per year, for secondary and tertiary care hospitalisation through a network of Empanelled Health Care Providers (EHCP).
- The EHCP network will provide cashless and paperless access to services for the beneficiaries at both public and private hospitals.
- The services will include 1350 procedures covering pre and post hospitalisation, diagnostics, medicines etc.
- The programme beneficiaries will be able to move across borders and access services anywhere in the country through the provider network seamlessly.

By introducing the below poverty line criteria, the government has covered the poor and vulnerable under this scheme.

(Older versions of health protection schemes were amalgamated into PM-JAY.)

3. Clean Fuel for the poor and improvement in health

Programme on providing clean fuel for cooking is another example: a study on the change in prevalence rate of asthma, associated risk factors and estimation of morbidity burden and avoidable cases of asthma in India, suggests that eliminating the modifiable risk factors could help reduce in huge amount of asthma cases, for example, by providing clean cooking fuel (LPG) to poor and vulnerable households under the Pradhan Mantri Ujjwala Yojana. (Kumar et al., 2017), (Ministry of Petroleum and Natural Gas, 2020). These households were using firewood, kerosene and other types of fuels which are harmful to human health – mostly to women and their under five children. The programme thus contributes to less morbidity episodes to this segment of the population and helps avoid spending on healthcare.

4. Agriculture and food security

Farmers constitute a sizeable section of the population and improving their livelihood through programmes in the agricultural sector is important. The farming sector in Japan had the same sorts of problems that many developing countries face today in areas such as daily living, sanitation and health. (Japan International Cooperation Agency 2019). There are several other initiatives which remain hidden behind each aspect depicted in Figure 1. For example, food security. The Government of India renamed the relevant ministry into Ministry of Agriculture & Farmers’ Welfare, and rolled out several initiatives such as income support scheme (Pradhan Mantri Kisan Samman Nidhi) for small and marginal farmers, soil health card, irrigation schemes, crop insurance, enhanced minimum support price for products, e-NAM – an electronic market for farmers to eliminate middlemen and thereby ensuring more profit – an incentive to produce more, scheme to double farmers’ income, agricultural credit card, social assistance, etc. All these improve their livelihood and therefore have better access to services and the families move up in the human development ladder.

5. Education, human development, livelihood, SDH

Initiatives in the areas of education, maternal and child health with emphasis on safe delivery and newborn child survival, nutrition, empowerment of the girl child including improving sex ratio are important. SES, especially education, is an important determinant of a person’s life chances including ability to earn; knowledge, attitude, behaviour and utilisation of health care services. Samagra Siksha Abhiyan aims at providing secondary school education to all (having achieved universal elementary education) and improving teaching quality. Several scholarships including those meant for girl children upto higher education level; those from minority communities; and educational loans by public sector banks to the needy through a single online portal, makes the process inclusive. The linkages of literacy, education, and empowerment of women to health and health security are shown in Figure 1.

Though there are many models of development, development through investing in human resource development is considered to be more sustainable. Female literacy is an
influencing factor in child survival; where women are not educated, fewer newborns survive. (WHO, 2005) Same is the case with awareness about nutrition, utilisation of healthcare services, etc. Therefore, the Government of India has paid special attention to the education of children, with more emphasis on girl children. The government has a battery of initiatives in the education sector, starting from literacy mission (focus on women; latest figures show that female literacy is increasing), early child development and preschool education through the Integrated Child Development Services (ICDS), elementary education, Right to Education Act, the Beti Bachao Beti Padhao (Save the Girl Child, Educate Girl the Child) scheme which eventually helped in improving sex ratio (especially in a State where it was lowest). (Puppal, 2020)

6. Integrated Child Development Services (ICDS) Scheme
The ICDS scheme encompasses not only many SDH but also age groups (0–45 years). In fact the benefits start from the first 1000 days of the child; cognitive development, nutrition, health, and early child development; and extends up to overall growth of adolescent girls, and maternal and child health – key to their overall development, health, nutrition and therefore improvement in their livelihood. (Integrated Child Development Services Scheme, 2020) This better prepares them to respond during health emergencies including COVID-19.

7. Beti Bachao Beti Padhao
This programme is a solid foundation for girls’ empowerment which ensures literacy and education – important determinants of health; and improving their life chances. This enables them to give good start to their next generation – it’s effect starts even before one is born – from the first 1000 days of a child and is carried on throughout the life span. For example, early child development, which encompasses physical, socio emotional, cognitive and motor development between 0–8 years of age. This is an important factor influencing a person’s life chances. 250 million, or 43%, of children in low- and middle-income countries are unable to realise their full development potential. (WHO, 2016). ‘More than 200 million children younger than 5 years are not developing to their potential owing to poverty, poor health, and nutrition. There is a relationship between children’s success at school and their IQ when they arrive at school’. ‘Many children are not reaching their potential at school and are therefore likely to have low incomes and provide poor care for their own children. In this way, poverty is passed down from one generation to the next’ (Grantham-McGregor et al., 2007).

The Government of India (and States) provide middle school, high school and higher education with scholarships (including those meant for single girl child in family), educational loan, etc. Gross enrolment rate (GER) across the primary school categories has crossed 95. (Government of India, Educational Statistics at a Glance, 2018) It may be noted that women’s prospects of getting a job and earning higher wage increases if she has a basic education. One percentage point increase in female education raises the average level of GDP by 0.37 percentage points. Every additional year of primary school boosts girls’ lifetime wages by 10–20%, and an extra year of secondary school by 15–25%. (UNICEF, 2020) Investing in girls’ education results in increase in years of schooling, better employment prospects, delaying of marriage, better role in decision making in the family, seeking healthcare, seeking institutional delivery, having fewer children, increased spacing between deliveries and improved child survival, improved sex ratio, better attention to the family; better preparedness to respond in crisis situations and all these are passed on to the next generation. Such families are better poised in facing health emergencies – mitigation and easier resilience.

Kerala (southern India) is one of the progressive Indian States with high human development index. This is because the State has been investing in human resource development since the time of princely rule – characterised by establishment of schools and colleges for men and women, strengthening primary health care infrastructure, empowerment of women – characterised by higher level of literacy, education and age at marriage (and a pioneer in successfully launching women’s self help groups branded as Kudumbashree), and democratic decentralisation (local self governments have a greater role). (Kutty, 2000) Thanks to Kerala’s strong health infrastructure and higher level of education of its people, early detection of chronic diseases has become possible, easing the burden on the health system. Most recently, it figured in the WHO-UNIATF Outstanding Ministries of Health Awards for its contributions towards NCD-related SDGs (WHO, 2020a). This has been supplemented by NGOs with their initiatives e.g. early detection of chronic diseases and their risk factors through a women empowerment model. (Hameed, 2012) Therefore, preparedness to face health emergency from a health security perspective warrants not only adequate diagnostic facilities, vaccines and treatment facilities, but also a sustainable regimen to secure
livelihood of the people and to quickly address socio-economic disruptions arising out of outbreaks. (Smith et al., 2019)

**Focus on livelihood to ensure health security**

A community’s livelihood, food and health are tightly interconnected. (Health Poverty Action, 2019) There exist big disparities between the poor and the rich with respect to access to health care and health status. The social, cultural, economic, political and behavioural determinants of health play an important role individually and through interplay, in access to health care and health status (Figure 1). Addressing them is a complex issue, especially identifying a set of criteria for intervention.

Households living in extreme poverty face a wide range of challenges that limit their ability to make productive interventions including mitigation from health, socioeconomic and climatic emergency situations. Socioeconomic status and racial disparities play an important role in contracting a disease and facing its aftermath. Livelihood programmes can have a wide range of benefits for the vulnerable families from increasing household consumption and income to improving food security and mental health. (Innovations for Poverty Action, 2019a), (Innovations for Poverty Action, 2019b). *The Garib Kalyan Rozgar Abhiyaan* rolled out by India during the period of lockdown owing to the COVID-19 pandemic, is a case in point. (Prime Minister’s Office, India, 2020)

The government has rolled out programmes in the areas of health, social security, housing, rural development, water, fuel, accessibility to health care, which are important to livelihood improvement and sanitation as shown by studies. (Joffe, 2007)

The cumulative benefits are passed on to the next generation, right from the First 1000 days of a child, ensuring better life chances across the life course. The cumulative economic benefit of all these get translated into better paid jobs for the people which in turn translates into better purchasing power, higher GDP for the country. Several of allied benefits accrued such as improvement in the quality of socialisation which parents are able to provide to the next generation are not explicitly mentioned here.

The results of these policy-driven programmes are visible in some cases, while in certain other cases, the impact will be visible in the long-run. Two flagship programmes of the Government of India as are presented here as cases.

**Good governance, health politics aspects**

A strong and decisive political leadership, democratically elected government, use of technology in administration have contributed towards good governance (including improvement in ease of living, reducing corruption and plugging pilferage), selection of beneficiaries based on robust criteria, rolling out welfare programmes aimed at reducing inequalities, accelerated and efficient implementation of the programmes, has helped the Government of India in achieving more tangible, faster and better results, of late (e.g. in the form of improved health and social indicators). Kickbusch remarked that ‘the crisis in global health is not a crisis of disease; it is a crisis of governance’ (Kickbusch, 2004). This may be read in conjunction with the observation that ‘the less favourable mortality trends in eastern Europe are attributable to economic and health care problems and a failure to implement effective health policies’ (Mackenbach et al., 2013).

This model shows that a government need not necessarily be rooted in socialistic ideology to make massive investments in welfare schemes to achieve massive growth on the one hand; and that thrust should be given to social return on investment; both short term and long term. The social return on investment perspective – ‘it goes beyond traditional economic evaluation tools, by considering value produced for multiple stakeholders in all three dimensions of development: economic, social and environmental’ (WHO, 2019e)-(Banke-Thomas et al., 2015) – is all the more important in most of the schemes being implemented by the Government of India; and they are policy-driven. This results in better education, awareness, health and therefore, better livelihood, which are prerequisites for social and health security. The Global Health Security Index 2019 report (Index, 2020) analyzes the preparedness related mostly to biological factors; and so the next versions of the report have to place more emphasis on the social determinants of health at-large and livelihood aspects.

**Conclusions**

The initiatives of the Government of India are expected improve health and social security of its people, with focus on addressing SDH and livelihood improvement. A strong political leadership coupled with democratically elected government has resulted in accelerated improvement in the implementation of programmes which in turn has helped in achieving faster and better results. These programmes and other initiatives indicate that they are aimed at improving health and social security; and are suitable for replication in similar settings, if policies are mainstreamed with SDH livelihood improvement components. Further studies are expected based on this
anlaysis, when the programmes of the Government of India have statistics on their impact on the target beneficiaries through national survey results in the form of social and health indicators.

**Limitations**

Statistics showing improvement from one time point to another is yet to become available. This is a major limitation of the study, but conceptual diagrams showing linkages are adequate to convince the readers about key messages. Government programmes, though a continuation of previous governments, tend to acquire new shape and changed nomenclature with the result that statistics become available after a government has completed its term and becomes difficult to compare between periods. Rapid surveys are rarely conducted e.g. on selected aspects such as immunisation.

**Acknowledgements**

The author is grateful to the organizers of the Global Health Security Conference 2019 for providing with a Bursary to participate and present this work. He acknowledges with thanks PSG & Sons Charities, Dean, PSG IMS&R and Dr. S.L. Ravishankar, Professor & Head, Department of Community Medicine, PSG IMS&R for their support and encouragement in writing this paper. He is thankful to the Consulting Editor of the journal and reviewers for their critical comments which helped in improving the content and focus of the paper.

**Disclosure Statement**

No potential conflict of interest was reported by the author(s).

**Notes on contributor**

Sivan is a social scientist teaching social determinants of health, and behavioural and social sciences to medical undergraduate students and postgraduate community medicine students.

**ORCID**

Sivan Yegnanarayana Iyer Saraswathy  https://orcid.org/0000-0002-5633-9631

**References**

Banke-Thomas, A.O., Madaj, B., Charles, A., & Van Den Broek, N. (2015). Social Return on Investment (SROI) methodology to account for value for money of public health interventions: A systematic review. *BMJ Public Health, 15* (582). https://doi.org/10.1186/s12889-015-1935-7

Chambers, R., & Conway, G. (1991). Sustainable Rural Livelihoods: Practical Concepts for the 21st Century. IDS Discussion Paper; 296. https://www.ids.ac.uk/publications/sustainable-rural-livelihoods-practical-concepts-for-the-21st-century

Department of Drinking Water & Sanitation, Ministry of Jal Shakti, Government of India. Swachh Bharat Mission-Gramin. [cited 2020 May 15]. Available from: https://swachhbabharatmission.gov.in/sbmcms/index.htm

Global Health Security Conference, 2019. *Sydney Statement*. [cited Jul 11]. Available from: https://www.ghs2019.com/sydney-statement.php

Government of India. Educational Statistics at a Glance 2018. *New Delhi: Department of School Education and Literacy, Ministry of Human Resource Development*. [cited 2020 Jul 2]. Available from: www.mhrd.gov.in/mhrd/files/statistics-new/ESAG-2018.pdf

Government of India. Ayushman Bharat. Pradhan Mantri Jan Arogya Yojana (PM-JAY). [cited 2020 May 20]. Available from: https://pmjay.gov.in/about/pmjay

Government of India. National Portal of India. [cited 2020 May 20]. Available from: https://www.india.gov.in/mygovernment/schemes

Government of India. Transforming India: Performance Dashboard. [cited 2020 May 24]. Available from: https://transformingindia.mygov.in/performance-dashboard/

Grantham-McGregor, S., Cheung, Y.B., & Cueto, S. (2007). and the International Child Development Steering Group. Developmental potential in the first 5 years for children in developing countries. *The Lancet, 369*(9555), 60–70. https://doi.org/10.1016/S0140-6736(07)60032-4

Hameed, S.S. (2012). Early detection of chronic diseases and their risk factors: A women empowerment model from Kerala, India. *South East Asian Journal of Public Health, 1*(2), 213–219. https://doi.org/10.4103/2224-3151.206934

Health Poverty Action. *Livelihoods*. [cited 2019 Dec 3]. Available from: https://www.healthpovertyaction.org/how-poverty-is-created/essentials-for-health/livelihoods/

Innovations for Poverty Action. *Promoting Productive Inclusion and Resilience in National Safety Nets: A Four-Country Evaluation in the Sahel*. [cited 2019a Dec 27]. Available from: https://www.poverty-action.org/study/promoting-productive-inclusion-and-resilience-national-safety-nets-four-country-evaluation

Innovations for Poverty Action. *The Effect of a Nutrition-Focused Livelihoods Program on Child Health and Nutrition in Burkina Faso*. [cited 2019b Dec 27]. Available from: https://www.poverty-action.org/study/effect-nutrition-focused-livelihoods-program-child-health-and-nutrition-burkina-faso

Integrated Child Development Services Scheme. Ministry of Women & Child Development, Government of India. [cited 2020 Aug 14. Available from: https://icds-wcd.nic.in/

Japan International Cooperation Agency. The livelihood improvement approach. [cited 2019 Dec 12]. Available from: https://www.jica.go.jp/english/our_work/types_of_assistance/tech/acceptance/training/experience/approach.html

Joffe, M. (2007). Health, livelihoods, and nutrition in low-income rural systems. *Food and Nutrition Bulletin, 28* (2_suppl2), S227–36. [cited 2019 Nov 6]. Available from: https://doi.org/10.1177/156482650702825202.
