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The evolving inter-generational health trends of the Fijian Girmitiya progeny

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Abstract

In the Girmit era, Fiji recorded the highest incidence of Indian Indentured Laborer (girmitiya) death of all the British sugar colonies. Communicable Diseases was the leading cause. Non-Communicable Diseases ranked lowly on the cause of death certification. Post-Girmit, credible data analysis only became available from the 1960's when clinical records were collated, analyzed and reported. This dataset demonstrates the insidious increase of NCD related morbidity and mortality into the 1980's. Data further shows that during the last two decades of the 20th Century, there was a massive increase in Diabetes, and Cardiovascular Disease. In the 1st two decades of the 21st century we face an explosion of NCD related premature deaths manifesting earlier in the second and third decade of life. On current science-based projectional trajectories a wider range of NCD complications is forecasted. This is compounded by the health impacts of climate change, increasingly frequent and forceful adverse weather events and pandemics. Associated climate related changes and extreme weather disasters complicate the lifestyles of the already medically compromised Fijian girmitya progeny. Improving health literacy strategies, addressing the commercial determinants of health and rebranding lifestyle modifications may hold the important keys to reversing increasing premature morbidity and mortality.

Introduction

With the abolition of slavery around 1833, global demand for human labour escalated sharply, especially within the expanding British Empire. The unprecedented waves of migration of over 1.3 million Indian workers under the British Empire saw the arrival of 60,965 girmitiyas to the Fijian shore under the authority of Colonial Governors, starting with Arthur Gordon and continuing until 1920 (Lal, 2000; Agent-General, 1901; Duncan, 2012).

This paper examines aspects of Girmitiya health in Fiji. Specifically, it tries to identify the underlying cause of the highest mortality rates of the Fiji Girmitya compared to the other thirteen sugar colonies. The Fiji girmitya mortality rates were also recorded as higher than those in the originating states in India, noting that pre-departure medical examinations for Fiji were no different to others bound to the other thirteen colonies (Duncan, 2012).

The Girmit Era

There remain no formal post-departure records on the health status of the girmitya apart from the Colonial Health Secretaries Annual Statistical Reports to the British Government. The annual statistical reports were compiled from the corresponding Fiji Immigration of Indians and the Register of Indian Deaths, datasets. The statistical reports remain of variable quality, focused on mortality rather than morbidity.

An extensive archival desktop review was undertaken by the Late Professor Brij Lal in collaborating the causes of morbidity and mortality to the end the girmit era for comparative analysis. Lal's work (2000) – '*A want of Care*: Death and Disease on Fiji Plantations (1890-1900)' - remains the only documented alternative of any summarized health report during the girmit era. However, this dataset was extracted and further analyzed from the Health Secretaries annual reports (Agent General, 1901). A more recent desktop review on the Fiji Girmitiyas' health was undertaken in 2017 to understand the specific causes of the very high incidence of morbidity and mortality (Sharma, 2017). This shows that Fiji had recorded the highest incidence of mortality of all the of fourteen Sugar colonies. This high mortality rate even surpassed the corresponding rates from the State of origin in India at that time.

The Post-Girmit Era

This period is that of the evolution of Non-Communicable Diseases (NCD). Statistically, NCD now supersedes Communicable diseases at a na-

tional level in the Girmitya progeny. A desktop review of the evolving patterns was analyzed in blocks of twenty years into the second decade of the twenty first century (Sharma, 2017; Ram & Raju, 2020). The 1960's was the watershed when clinical research was added to statistical reports by practicing physicians, providing a clearer perspective and future projectional possibilities with potential interventions.

This paper provides a narrative of the girmit era and the subsequent evolving intergenerational health trends of the Girmitya progeny. The narrative in the first forty years (1920-1960) remains poorly documented. However, robust research data became available from the 1960's with its evolving patterns into 2020's. Second, the paper reviews the current WHO projections in drawing up a forward strategy to contain the NCD crisis. Third, targeting the three areas of Health Literacy, Policy Review on Commercial Determinants of NCD and rebranding Behavioral Modifications are the 'low hanging fruit' to easily arrest the upward spiraling NCD Crisis.

Methodology

The two sources of information to address the research question was to search the Secretary of Health's Annual Reports for the period 1879-1920 in the National Archives of Fiji, and secondly to review previous work of Lal (2000). The review of medical publications post-1960's was undertaken via hard copy review of the Fiji Medical Journal and reprinted in *The Pharmatimes* under the guidance of Dr. Parshu Ram. Desktop online review via Google Scholar did not provide any other relevant reference to the Fijian Girmit experience apart from Lal's studies and the more recent 'Girmitya Health-2017' publication (Sharma, 2017).

The limitation remains that the Secretary of Health Annual report is the only source of information with all its shortcomings. There is no medical information on general health and wellness in the girmit era. There are no public records analysis of general laboratory or diagnostic test or post mortem reports. The diagnosis of morbidity and mortality are based on gross anatomic findings.

The Girmit Era (1879-1920)

Of the approximately 61,000 workers brought to Fiji, around 8,500 or 14%, perished from a variety of causes within the areas of acquired medical conditions, suicide, homicide and accidents (Lal, 2000; Agent-General, 1901; Duncan, 2012). Most deaths were recorded early in their stay in Fiji and recording the highest incidence of girmitiya death within all British colonies (Lal, 2000; Agent General, 1901).

A literature search on Girmitiyas' health was undertaken in 2017 at Fiji's National Archives. Lal's data on health issues during the indentured period was reviewed. Comparative data from the colonial secretary's reports over the girmit era from published and unpublished sources were assessed for comparison. A fresh analysis of the original morbidity/mortality dataset was done in light of modern medical diagnosis was then undertaken (Sharma, 2017). The analysis of the rations and caloric requirements for heavy tasking work were undertaken to determine whether inadequate calories provided led to a stage of chronic malnutrition using the Harris-Benedict Equation. This entailed having to calculate the daily minimum caloric requirements for indentured workers for the type of work they were required to do using newer scientific methodology. The results showed that there was at least a 24% shortfall in the caloric requirements for adult male workers in the indenture ration packs. Workers were provided these packs for 6 months on starting the indenture period (Sharma, 2017).

The shortfall, together with lack of any provision of reasonable protein sources, are compelling factors in causing malnutrition. Given the massive shortfall in the minimum dietary requirements for the type of work being done on plantations, it is proposed that malnutrition on the plantations during indenture was a chronic factor (Sharma, 2017). It is also argued that the causes of death listed in the official reports could not have been determined with any scientific levels of confidence. There is no documentation or record on the factors which the officials used, viz a viz, a checklist, to identify the cause of death of a girmitiya. Finally, the study argued that chronic malnutrition in indentured workers underpinned the cause of most deaths, which were erroneously listed in official reports as resulting from a number of other causes. Compounded with other variables like poor sanitation, parasitic exposure, hard tasking labour, physical and mental torture, chronic malnutrition on Fijian plantations contributed to the highest morbidity and mortality rates within all of the Britain's sugar colonies.

The Post-Girmit Era (1920-1960)

The Secretary of Health's Annual Reports remain of variable and limited scientific value in colonial times. Only in the 1960's credible, comprehensive and formal medical research commenced. A gradually increasing incidence of NCDs were noted from the hospital reports (Ram, et.al, 2021: 9-14). Drs. Sutton, Parshu Ram, Cassidy, Bakani and Salik Govind undertook pioneering

work in data collection, analysis, reporting and publication in medical literature outlets. Their efforts resulted in health service reviews but were marred by slow administrative policy directives within the healthcare system over the subsequent forty years (1960-2000).

The Evolving Pattern of Disease (1960-1980)

Between 1960 and 1980, a steady increase of NCD's in the community was noted. Diabetes mellitus and cardiovascular diseases were specific focus of studies (Ram, et.al, 2021; Ram and Raju, 2020: 7-17)). The patterns of diabetic presentations were quite different in the two ethic communities although the disease centered around the 40-year age group. In the girmitya progeny the classical presentation was followed by diabetic screening and diabetic sepsis undertaken, to reach a diagnosis. The Fijian indigenous community presented with diabetic sepsis as the lead symptom, followed by screening and classical symptoms of diabetes in the 3rd position. Type-one diabetes, coma and renal complications were rarely noted in the initial dataset. Gestational diabetes was rare (3%) (Ram, et.al, 2021).

Studies on the incidence of diabetic complications by Dr. Cassidy had taken place in 1964-65 which noted the multi-organ impacts. Only 10% of diabetes was a stand-alone diagnosis. Other target organs for diabetes at that stage included cardiac, ocular and kidneys, in that order, in the girmitya progeny.

Bakani's 1964 study on the rising incidence of cardiac disease was the catalyst in the establishment of a two-bed coronary care unit at CWM hospital, Suva (Ram and Raju, 2020). The clinical load at the clinics were mounting and reflected in the hospital statistics with limited comprehensive workforce capabilities. Diabetes mellitus was red flagged in 1971 by the lead physicians at the three divisional hospitals.

On the recommendation of the World Health Organization in 1980, initiatives to establish a custom-built national body to address NCD was proposed (WHO Expert Committee, 1980). After much effort, the *National Diabetic Foundation* was established in 1984. Local protocols were developed following Australian institutional exposure provided to a doctor, two nurses and a dietitian. Professor Zimmet, who had undertaken extensive epidemiological studies on NCD in 1980 in Sigatoka, Suva and the Lau group of islands, was very supportive to this initiative. On the persistent efforts of Chief Clinician Dr. Parshu Ram, his professional colleagues from abroad and the local private sector, saw the Foundation establish a strong foothold. These efforts were endorsed by the then Prime Minister of Fiji, the late Ratu KKT Mara.

The NCD Epidemic (1980-2000)

The last two decades of the twentieth century (1980-2000) show a cataclysmic increase in both the incidence and prevalence of diabetes and cardiovascular NCDs. Dr. Salik Govind reviewed the increasing incidence of cardiac diseases as co-morbidity to diabetes mellitus in the 1983-86 period, within the evolving clinical scenario. The increasing clinical workload, influx of inpatient care, increasing morbidity and mortality were of great concern to the leaders in the medical community.

Although the indigenous population had a much lower incidence of NCD-Diabetes mellitus previously, the incidence rapidly caught up and started presenting with NCD complications inclusive of cardiac presentations. The 1987 military coup affected service delivery; there was a rapid 33% loss of manpower in the doctor-cadre. Thus, the whole NCD effort took a steep slippery slide to the end of the 20th century.

The Tsunami of NCD: 2000-2022

The first two decades of the 21st century show a tsunamic rise in both incidence and prevalence of NCD in both the ethnic communities. These diseases were, thus, no longer exclusive in the girmitya progeny. No longer a disease of the fourth decade of life, the evolving disease patterns and presentations continued to occur as individuals in their 20-30's became symptomatic or suffered cardiac shock, rhythm disturbances and premature death. Presentations earlier in the second and third decades of life especially in the girmitya progeny with worsening co-morbidities and mortality was noted (Ram & Raju, 2021, 2020).

Projectional Forecasts (2020-2040)

On current projectional trajectories medical research forecast a problematic future where a wider range of NCD complications eventuate. Apart from stand-alone diabetes mellitus (10%) and cardiovascular diseases, the compounding complications by co-morbidities, cancers and mental health components continue to get unmasked. If meaningful early interventions to this NCD crisis are not mobilized early, the girmitya progeny face an existential dilemma. The health impacts of climate change, extreme weather events and forecasted future pandemics will impact strongly on an NCD compromised girmitya progeny and that of his itaukei brethren.

The trifecta of *Health Literacy*, *Policy Review on Commercial Determinants of NCD* and *rebranding Behavioral Modification* can become the practi-

cal foundation, in arresting the spiraling NCD Crisis.

Health Literacy

General Literacy is classified as basic, functional and creative. Strangely, Fiji claims a general literacy of 99% based on four years of unsupervised attendance in primary school, without any caveats within its variable educational environment. Unfortunately, basic numeracy and literacy does not provide abilities to process practical health literacy. Consequently, the gap between comprehension and application of knowledge to health issues remain wide and deep (Nutbeam, 2018; Sharma, 2018).

The Health Ministry's Wellness Promotion unit and the Education Ministry must reconcile this literacy gap and act at all levels in the school system and in community educational programs. The onus remains to align the education system and health's wellness policy directed programs (Sharma, 2018). The absence of such alignment worsens health inequities in the communities. The need for such issues has been repeatedly spelt out and evident in even the more recent 2015 *Yanuca Declaration* voiced by Pacific leaders. The target is to enhance true functional health literacy.

Addressing health literacy remains at the heart of health promotion in the 21st century**.** Raising health literacy to address the worsening global health inequities, remains urgent work in progress. Multisectoral approaches to identify the social determinants of health (SDoH) inclusive of commercial health determinants (CDoH) which reduce health inequities is not unscalable.

Currently the mis-match between comprehension level of health promotional material and instructional methods are set much higher to our population's general functional state of literacy. Innovative reorientation of healthcare policy and program delivery using the top-down and down-up approaches can address the current health promotion gaps. A new NCD policy direction needs to be considered, with focused programs which are monitored and evaluated, real-time to enhance health literacy (Sharma, 2018; Kickbusch, 2001).

Policy Review on Commercial Determinants of NCD

Commercial Determinants of Health (CDoH) is a new field of study and classification, within Social Determinants of Health (SDoH) covering three salient areas. First relates to unhealthy commodities that contribute to ill-health. Second, they include business, market and political practices that are harmful to health and are used to sell these commodities by securing favorable policy

environments. Finally, the inclusion of the global drivers of ill-health, such as market-driven economies and globalization, that have facilitated the use of such harmful practices (Mialon, et.al, 2023; Mialon, 2020; WHO, 2023).

There are four major areas of health interest in the CDoH. The consumption of tobacco, alcohol, ultra-processed fast-food and sweetened sugary beverages (SSB). These are transnationally visible and contribute to significant NCD related ill-health. The impact is much more evident in the low resourced developing countries and more so in the Pacific Small Island States (Mialon & Sharma, 2018). Fiji is not an exception. Our girmitya progeny is in this category. Fiji's indigenous population is no longer an exception due to their evolving lifestyle; they are now also subject to premature onset of NCD risk.

Following a 2009 Food and Agriculture Organization Vanuatu Summit, Fiji's Health Team decided to commence national level consultations with all parties dealing with the Food, Drinks, Alcohol, and Tobacco industries. This initiative was supported by United Nations organizations, bilateral partners and civil society organizations, in a wide and open arena. Areas of public awareness, industry policy changes, government regulation, grading of food outlets, product reformulation, enforcement and taxation were tabled for discussed.

Great strides were made in policy drafting, law changes, increased taxation, new regulations, annual licensing and fees restructuring for stakeholders. Enforcement within the tobacco industry eventuated successfully. However, the SSB industry working outside the gambit of the larger group, sought political leverage for *self-regulation* to a limited number of like-minded transnational and national corporations. Self-regulation failed. The British Health Forum study (2018), specifically published a review on Fiji's failed *Self -Regulation* Limitations (Mialon & Sharma, 2018).

More recently (April 2023) *Lancet* has projected the future role of the commercial sector in global health and health equity (Friel, 2023). *The discussion is not about the overthrow of capitalism nor a full-throated embrace of corporate partnerships.* No single solution can eradicate the harms from the commercial determinants of health - the business models, practices, and products of market actors that damage health equity and human and planetary health and wellbeing. Evidence shows that progressive economic models, international frameworks, government regulation, compliance mechanisms for commercial entities, regenerative business types and models that incorporate health, social, and environmental goals, and strategic civil society mobilization, together offer possibilities of systemic, transformative change, reducing harms arising from commercial forces, and foster human and planetary wellbeing (Friel, 2023).

WHO initiated a new programme of action, the Economic and Commercial

Determinants of Health, with four goals: to strengthen the evidence base; develop tools and capacity to address the commercial determinants; convene partnerships and dialogue; and raise awareness and advocacy. Despite this, help is not being sought by Pacific Small Island States on implementing these or benefiting from these (WHO, 2023).

Within the Fijian jurisdiction a *Wellness Policy* has been in the draft stage for the last eight years. Dysfunctional policy development with the current program deficiencies and non-existing enforcement strategies are producing no programmatic gains. This remains a politically motivated strategy as State Capture stalls implementation of a forward plan. The SSB and the fast food industries are still the elephants in the room and continue to economically benefit whilst the health inequities reach a crisis tipping point (de Lacy-Vawdon, 2022).

Behavioral Modification

The UN endorsed 'Best Buy's Strategy' of 2010, is still a comprehensive targeted approach in addressing the NCD crisis globally. However cultural, traditional and country specific initiatives need to be factored in any rebranding exercise. Fiji's draft *Wellness Policy* is an example when the lead organization has absolved itself of any responsibilities. Fiscal support is absent and monitoring and evaluation surely belong to the policy makers and program directors. The draft has not been endorsed in the last eight years and lacks direction. A major refocus is needed if the NCD crisis is to be gated.

As 80% of deaths are related to NCDs currently, it remains absolutely essential to prioritize policy direction to addressing this menace. Improving strategies to raise health literacy in schools, communities and nationally with awareness; legal input into laws, regulations and the enforcement of legislations, and behavioural changes are necessary. A major review of the social determinants, especially the commercial determinants of health, needs to be addressed. Sandwiched between improving health literacy effort and commercial determinants of health, one has modification / rebranding of the Best Buy's strategies, to contain the NCD crisis. This remains an inter-generational health issue of global concern if society fails to make this effort.

Conclusion

The inter-generational health trends of the Fijian Girmitya and their progeny demonstrates the evolution of morbidity and mortality from communicable

disease to non-communicable diseases over the last 144 years. The high morbidity and mortality of the Girmitya was multifactorial, however malnutrition underpinned their susceptibility to ill-health and premature death.

Post indenture, the evolutionary changes in lifestyle as free farmers, improved nutrition, scientific advantages in industrialization after the World Wars with improved healthcare, vaccines and antibiotics availability, communicable diseases declined. However, Non-Communicable Diseases increased with westernization, viz-a-viz: diet changes, sedentary lifestyles, mechanisation of farming and a push to academic pursuits of the girmitya progeny. The progeny was encouraged to become teachers, doctors and lawyers away from the previous lives of farm work. The toll of NCD was set in motion. Each decade has unfolded the evolution of a complicated mix of disease patterns with a problematic increase in incidence and prevalence. The inter-twining of disease patterns with the indigenous population is no coincidence; rather it is very much related to commonalities in lifestyle risk we carry in a post-colonial nation.

The projectional forecasts issue a stern warning to consider immediate remodeling of strategies in health literacy on one hand, and managing commercial determinants of health on the other. Behavior modifications rebranding, once restructured and enforced, will be the crowning center piece. The trifecta of improved health literacy with a remodeled best buy's approach with the an *All of Government and Society* approach to regulate in its widest terms addressing the commercial determinants of health, is the most practical means to curtail, arrest and reverse the existential threat to not only the girmitiya progeny but all people of Fiji.

References

Ram, P. and R. Raju, (2021), 'Diabetes in Fiji in the Twentieth Century Part III: The establishment, activities, and achievements of the National Diabetes Centre', *Pharma-times*, Nov: 9-14.

Hassan, Heshmati M., (2020), 'Impact of Climate Change on Life', in Suriyanaranan Sarvayakesavalu and Pisit Dhareonsudjal (eds) *Environment Issues and Sustainable Development.* London: Intechopen. Open DOI: 10.5772/intechopen.94538; pp. 199-218.

Agent-General, (1901), *Annual Report on Indian Immigration to, Indian Emigration from, and Indentured Indian Immigrants in the Colony for the year 1900.* Council Paper No. 28/1901. Suva: Government Printer.

Duncan, N., (2012), 'Death of Fiji Plantations,' in B.V Lal (ed), *Chalo Jahaji*. Canberra: ANU E-Press. pp. 291-323

Sharma, N. (2017), 'Girmitya Health Review; 2017', *Fijian Studies,* 15(1): 109-120.

Ram, P. and R. Raju, (2020), 'Ischemic Heart Diseases in Fiji: The Emergence, early

studies, and Experiences', *Pharma-times,* September: 7-17.
WHO Expert Committee, (1980), *Establishment of a National NCD center*. Report, Technical Series 646. WHO: Geneva.
Nutbeam D., (2018), 'Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century', *Health Promotion International,* 15(3): 259-267. [cited 16 August 2018];15(3):259-267. https://academic.oup.com/heapro/article/15/3/259/551108
Sharma, N., (2018), 'Achieving Health Equity through Health Literacy', 03/09/2018. LINKEDIN dr_neil_sharma. (Research Gate)
Yanuca Island Declaration on health in Pacific island countries and territories, (2015), http://www.wpro.who.int/southpacific/pic_meeting/2015/phmmdeclaration2015_english_final_nov3.pdf
Sharma, N. (2018), 'Health Literacy the way forward in Paradise: Fiji', 01/08/2018. LINKEDIN. dr_neil_sharma. (ResearchGate).
Kickbusch I., (2018), 'Health literacy: addressing the health and education divide', *Health Promotion International,* 16(3): 289-297. [cited 16 August 2018], https://academic.oup.com/heapro/article/16/3/289/653857
Mialon, M., et al, (2023), 'Commercial Determinants of Health', *The Lancet,* 401(10383), April: 1229-1240. (DOI: https://doi.org/10.1016/S0140-6736(23)00011-9).
Mialon, M., (2020), 'An overview of the commercial determinants of health', *Global Health*', 16(74). https://doi.org/10.1186/s12992-020-00607-x
WHO, (2023), 'Commercial Determinants of Health', https://www.who.int/news-room/fact-sheets/detail/commercial-determinants-of-health
Mialon, M. and N. Sharma, (2018), 'Sweetened and Sugary Beverages, NCD and Limits of Self Regulation', in *Public Health and the Food and Drinks Industry: The Governance and Ethics of Interaction. Lessons from Research, Policy, and Practice.* London: UK Health Forum, pp. 39-44
Friel, S., et.al (2023), 'Commercial determinants of health: future directions', *The Lancet*. 401(10383): 1229-1240, April. doi: 10.1016/S0140-6736(23)00011-9. Epub 2023 Mar 23.
de Lacy-Vawdon C, B. Vandenberg, and C.H. Livingstone, (2022), 'Recognizing the elephant in the room: the commercial determinants of health', *BMJ Global Health* 7(20). https://pubmed.ncbi.nlm.nih.gov/35121643/.

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