Case Report

Harnessing the energy of the corporate sector to end TB: BE health

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ABSTRACT

The World Health Organization (WHO) estimates that 3 million people with TB are ‘missing’ from the official information system. They remain often undiagnosed and untreated or are managed outside the national TB programme structure by various care providers (including the private for-profit sector) and are not notified. The care provided to these patients is often sub-standard, not aligned with national and international guidelines, and un-regulated. WHO has repeatedly underlined the importance of collaborating with the private sector to improve prevention, diagnosis and treatment of TB. Private organisations could join public healthcare institutions’ efforts and expand their breadth of interventions to preventive interventions and play a complementary role to the public healthcare systems. Having access to a large scope of employees, customers, suppliers and other stakeholders, corporations should indeed be able to undertake prevention activities utilising their capacity to generate the necessary resources.

BE Health is an example of such a private initiative. It was established to build bridges between the workplace and the local communities aiming to empower high-risk populations to address their own major killers such as TB, HIV/AIDS and malaria, within the framework and targets of the United Nations Sustainable Development Goals. In collaboration with healthcare experts, BE Health decided at first to build awareness and spread information on health at the workplace. The approach focused on training newly-formed peer health educators capable of transferring knowledge to their local community. BE Health managed to create a solid network of peer health educators (selected among skilled employees) and community health volunteers selected among slum dwellers) operating in the metropolitan areas of Bangkok and Djibouti and focused on TB and HIV prevention among local impoverished communities.

Between 2013 and 2019, 51 peer Health Educators were trained, over 213 health promotion activities were organised at the workplace and more than 4,000 employees were reached through prevention activities, 730 community visits were conducted, over 1900 households were screened for TB and/or HIV with more than 22,000 people reached directly by prevention activities.

Similar third party approaches need to be further assessed, harnessed and expanded to complement efforts of the public health sector.

1. Introduction

With 10 million people falling ill in 2018 (of whom an estimated 1.1 million children), and 1.5 million deaths, including 250,000 among people with HIV infection, tuberculosis (TB) is the world’s leading infectious killer. A clear example of a poverty-related disease, TB mainly affects people in their most productive working years of life [1].

Despite the important progress achieved in reducing TB incidence and mortality with 58 million lives saved since 2000, the World Health Organization (WHO) estimates that 3 million people with TB are ‘missing’ from the official information system. They either remain undiagnosed and untreated or are managed outside the national TB programme structure by a variety of care providers, including in the private for-profit sector, and are not notified. The care provided to these patients...
is often sub-standard, not aligned with national and international guidelines, and un-regulated. This may lead to poor care causing unnecessary suffering and high mortality, increased transmission in the community as a result of delayed diagnosis and treatment [2], creation of drug resistance as a result of incomplete or incorrect treatment, and a significant financial burden to patients due to out-of-pocket expenditures [1]. Prevention interventions, including active TB case-finding campaigns, are necessary to effectively reduce the number of missing cases. Though public health care providers do not always have the human and financial resources to reach out broadly outside their clinical setting and overcome alone the deficiency.

Cooperation with the business sector can be part of the global efforts to end TB and play an active role in finding these missing cases. WHO has repeatedly and clearly underlined the importance of collaborating with the private sector to improve prevention, diagnosis and treatment of TB, while ensuring these cases are notified to the surveillance system and managed as per national and WHO guidelines on public–private mix approaches [3–5]. The WHO End TB Strategy explicitly emphasizes the importance of involving the private sector in its second Pillar ‘Bold policies and supportive systems’ under point B ‘Engagement of communities, civil society organizations, and public and private care providers’. In another point of the same pillar, social protection and poverty alleviation are described as necessary policies conducive to good care and control efforts [6,7]. The recently adopted Declaration of the first-ever UN High Level Meeting on TB also calls for multi-sectoral action to end TB, including engagement of the private sector [8]. In late 2018, WHO, the Public-Private Mix Working Group of the Stop TB Partnership, and global partners released a new roadmap in October 2018, which identifies clear actions needed to expand the engagement of all care providers towards universal access to care [9]. This builds on a landscape analysis of efforts and challenges in engaging private healthcare providers for TB that was released at the same time [10]. Over recent years, public health care institutions recognized the potential of engaging private corporations in complementing their efforts to fight TB. The aim of this paper is therefore to show that active cooperation between public institutions, such as National TB control programmes, and the private corporate sector and its projects, such as BE Health initiated by Kempinski Hotels, can be beneficial to effectively address TB.

2. Prevention is as fundamental as care

Prevention is as fundamental as care. The private corporate sector’s engagement could indeed have an impact on TB control by taking action upstream. Biomedical treatment and research are often the priority in terms of human and financial resources, while prevention is as vital since it addresses TB’s root causes and risk factors. Health is more than health care as it is influenced by multiple factors: these determinants include quality of health care and individual behaviour, which in turn are shaped by physical and social environment and the social and economic resources of individuals and households. [17]. If we follow this reasoning, health depends significantly on how we are able to provide access to prevention besides care and curative treatment. Furthermore, considerable resources are daily allocated to alleviating illness but not to prevention. This causes a considerable imbalance between alleviating current harm and preventing future harm [18]. Medical treatment is present-oriented as it addresses immediate suffering and current health problems, while prevention is future-oriented without an immediate evident effect. The outcomes of medical treatment are most of the time tangible, while the impact of prevention is difficult to measure as occurrence of the disease might be related to other factors such as the individual and population socio-economic status. This is particularly relevant to a social disease like TB.

Because of TB’s high incidence in most low- and middle-income countries, TB care, diagnosis and treatment are the obvious top priorities to avert deaths, cure affected people and stop transmission in the community. Economic dynamics may further influence this attitude since positive medical and pharmaceutical research outcomes can lead to measurable and profitable return on investments. Although they have a scientific baseline, broad preventive interventions are currently not built on similar methodical and systematic grounds and usually do enjoy only marginal contributions of private and/or institutional investments in most settings. Preventive interventions encompass environmental modifications and control in addition to personal behaviour alterations while the evaluation of their outcomes and impact are based on observational methods, which makes them more difficult to prove or refute [19]. Prevention does not dictate its value or relevance and for individuals the effect of prevention can only be inferred [20].

Even though one cannot see immediate effects, prevention plays an essential role in TB control and elimination. Prevention first requires accurate education of high-risk populations. This is a powerful and sustainable solution to prevent many conditions, including TB. Preventive interventions can be delivered through education at home, work, school and in the community.

Absorbed by heavy daily work, care providers and public health staff often do not have the resources nor the time to implement preventive interventions and address TB transmission outside the clinical setting and in the community. Hence private organisations, often focused on care, could expand their breadth of interventions to preventive measures and play a complementary role to the public health care systems. Having access to a large scope of employees, customers, suppliers and other stakeholders, corporations should indeed be able to undertake prevention activities at the workplace and in local communities utilising their capacity to generate the necessary resources. In addition, businesses recognize that working in isolation from the local environment is not conducive to success. Corporations can therefore contribute to the health of people, with an additional positive impact on their business and social environment, by thinking more broadly and embarking on community-based approaches, including on both care and prevention of infectious diseases.

3. The importance of the corporate sector in closing gaps in prevention and care

Among non-state care providers, the corporate sector and its workplaces can thus play a major role in ensuring prevention and access to quality TB care. According to the International Labour Organization, ILOSTAT database and World Bank, over 3.489 billion people are in the world of work; this constitutes nearly half the world’s population [11,12]. The corporate sector, therefore, represents a key partner to ensure access to quality care and prevention to a huge population. Barriers to care linked to working conditions, such as working hours of clinics and the need of ensuring adherence to treatment, can all be addressed if care is provided through the workplace. Furthermore, tackling TB in high-risk occupational sectors such as mining, construction, garment manufacturing and those involving poor working and living conditions, can cut TB transmission. In addition, addressing TB in the workplace is advantageous and cost-beneficial to businesses. In high TB burden settings, the impact of TB on the workforce can range from decreased productivity to absenteeism, high turnover and the risk of further TB transmission. This affects not only the company bottom-line but also the surrounding community, consumers and the country economy as a whole.

The WHO guidance on corporate sector engagement emphasizes the importance of workplace involvement and outlines a menu of options that businesses can undertake in care delivery, prevention or through corporate social responsibility [Fig. 1]. Depending on the size and capacity of the business, each workplace is an entry point to prevent TB from spreading and provides an audience for education messages and behaviour change. National TB control programmes as well as national AIDS programmes, can gain from collective action at the workplace thus maximizing efforts to prevent TB, and facilitate early diagnosis and treatment adherence [13].
4. Corporate social responsibility: From the workplace to the community and beyond

In recent years, businesses are including corporate social responsibility (CSR) into their core principles and work. The European Commission has defined CSR as the responsibility of businesses for their impact on society [14]. While addressing TB in the workplace is part of the CSR and an important social justice gesture, given that TB is an airborne disease and can be transmitted in the community, businesses have many advantages in leveraging their resources to support the community in which they operate and beyond. Several businesses are already leading in this area including Anglogold Ashanti in South Africa, Chevron in the Philippines, Youngone in Bangladesh, and others [15]. However, these examples remain few, isolated and far between. What is needed are more widespread, sustainable and well-integrated corporate-sector led approaches.

One of these approaches is BE Health, initiated by Kempinski Hotels, which has taken a unique approach to CSR and can serve as a model for others [16]. The programme focuses both on TB and HIV prevention and care for employees at the workplace and people from the informal sector in underprivileged neighbourhoods where employees are often living. Although BE Health added HIV in its prevention programmes as the disease increases the risk at TB in people with HIV, the organisation concentrated its efforts mainly on TB, in particular in Djibouti. Because of the HIV/AIDS taboo in this country, TB was also used as a gateway to HIV prevention among adolescents. Malaria outbreaks increased dramatically in Djibouti over the past years, which is the reason why efforts to address this disease were also added in BE Health’s programmes in 2019.

5. Spotlight: The BE Health project

To illustrate the potential of the corporate sector, the efforts initiated by Kempinski Hotels, a corporate sector enterprise, in health, notably in combating TB and HIV, is presented below. For Kempinski, hospitality is a service business for which 77 hotels in four continents are managed, combating TB and HIV, is presented below. For Kempinski, hospitality is a service business for which 77 hotels in four continents are managed, employing 26,000 people. Also prompted by a corporate social responsibility sentiment, the hotel group started from the conviction that health is contagious and spread information on health at the workplace. The approach focused on training newly-formed peer health educators capable of transferring knowledge to their local community. Since the foundation of the organisation, BE Health managed to create a solid network of peer health educators (selected among skilled employees) and community health volunteers (selected among slum dwellers) operating in the metropolitan areas of Bangkok and Djibouti. In both settings, trained health educators became able to conduct prevention sessions focused on avoidance of risk factors for major infectious diseases among their colleagues and in their community. They also carried out community visits accompanying TB patients throughout long treatments until cure. They empowered individuals living with HIV helping to alleviate stigma through education and informing about TB that is a well-known major killer among people living with HIV. BE Health volunteers organised health promotion campaigns in the local communities, provided knowledge to vulnerable people helping to protect them and their relatives, gave support throughout long medical treatment periods, fostered TB prevention and control initiatives, and contributed to reaching national targets.

In the case of the organisation’s activities in Bangkok, starting in 2012 and in collaboration with public health partners and the National TB Programme, BE Health implemented community-based interventions, both curative and preventive in nature, and also began poverty alleviation approaches. The interventions consisted in active TB case finding, TB and HIV patient support and accompaniment, as well as the provision of social protection for impoverished TB patients, including support for house rent, daily food and transport to the healthcare centre during the first two months of treatment.

BE Health benefited from steady although not diversified funding from its two company donors. This has, so far, prevented expansion of its activities to additional countries. The organisation though involved other local private sector companies into its two programmes and could expand its activities in the workplace, in particular in Djibouti where the Société de Gestion du Terminal des Conteneurs de Doraleh (Container Terminal Port of Doraleh) joined BE Health in tackling high the TB and HIV burden amongst truck drivers and day labourers.

6. BE Health contributions to better health outcomes

The results of the activities of BE Health are summarised in Table 1. Overall, from 2013 to December 2019 of all trained peer Health Educators, 51 are currently active. 278 health promotion activities have been organised at the workplace and more than 4,000 employees were reached through prevention activities. 910 community prevention activities were conducted by peer Health Educators with 45 health promotion events organised at the local community level. 1,900 households were screened for TB and/or HIV in Bangkok from December 2017 until
Table 1
Results of the activities of BE Health.

| Activity                                                                 | Bangkok 2013-2019 | Djibouti 2015-2019 |
|------------------------------------------------------------------------|--------------------|--------------------|
| Active peer health educators & community health volunteers            | 21                 | 30                 |
| Health prevention activities at the workplace                         | 213                | 65                 |
| no. of employees reached directly                                      | 2,100              | 2,000              |
| Awareness campaigns in local community                                | 30                 | 15                 |
| Prevention activities in local communities (associations, schools, community healthcare centres, streets, etc.) | 530                | 380                |
| Active TB case finding                                                 |                    |                    |
| no. of households screened for TB                                      | 1,900              | -                  |
| no. of people screened for TB                                         | 5,400              | -                  |
| Home visits to accompany TB and/or HIV patients (138 patients in total) | 730                | -                  |
| Social protection for TB patients, including MDR-TB patients (as of end 2017) | 40                 | -                  |
| Total people reached directly by prevention activities                | 13,500             | 8,640              |

Active peer health educators & community health volunteers
Health prevention activities at the workplace
no. of employees reached directly
Awareness campaigns in local community
Prevention activities in local communities (associations, schools, community healthcare centres, streets, etc.)
Active TB case finding
no. of households screened for TB
no. of people screened for TB
Home visits to accompany TB and/or HIV patients
Social protection for TB patients, including MDR-TB patients (as of end 2017)
Total people reached directly by prevention activities
December 2019 and during these active TB case findings, 5,400 people were screened for TB. More than 22,000 people in Bangkok and Djibouti were reached directly by prevention activities. 138 patients with TB and/or living with HV were followed-up by peer health educators in Bangkok. So far, 40 indigent patients received social protection since September 2017.

7. Challenges and lessons learned

Three major challenges had to be faced when implementing BE Health. The first was the difficulty to collect reliable data when the focus was mostly on preventive interventions and the health information system has obvious weaknesses; the second was the need to estimate the cost-effectiveness of these interventions to justify their expansion and sustainability and third is the challenge of increasing the engagement of other companies and resources.

Accurate data reflecting the outcomes of core activities are often difficult to obtain for an organisation that is working upstream of the required medical data and functioning as an intermediary party between healthcare centres and TB and HIV high-risk and impoverished populations already at the margins of the reach by national statistics. To illustrate these difficulties, from June to September 2018, besides their health promotion and social protection responsibilities, BE Health’s community health volunteers screened 584 households for TB and HIV, i.e. 1650 slum dwellers, in Khlong Toei (1–2.3 Log neighbourhood). All 17 suspected TB cases were referred to Khlong Toei’s healthcare centre (HCC 41), ten people underwent full medical examination, and five were diagnosed and registered as an active TB case. BE Health then started the follow up on all five active TB patients to make sure that they had the necessary support, social protection plan and resources to get cured. However, no information regarding the seven remaining TB suspected cases could be recorded by BE Health staff, given that the Bangkok slum population by definition is not permanently fixed, but partially itinerant, sometimes illegal or hiding to governmental institutions due to criminal activity. This situation creates at times unsurmountable difficulties for any public or private organization working in the field. Even more challenging has been the effort in Djibouti, a country with inadequate resources to sustain an accurate health information system.

The second challenge refers to the feasibility of estimating the cost-effectiveness of BE Health’s activities directed towards halting TB and HIV transmission. The expectation of a return on investment comes naturally to the private sector. The social factors and intangible results, inherent to BE Health’s prevention interventions, make such an evaluation arduous in terms of human and financial resources and the challenges linked to the previously detailed issue of weak information systems.

Corporations choose to have an impact on their environment with engagement and efforts, meaning that BE Health’s expenses must be considered as a social investment without generating reliable return on investment. The extent of Kempinski’s investment remains limited, which is the reason why BE Health strives to attract additional mid-sized companies to increase the scope and focus on well-targeted populations, to generate additional contributions towards ending TB and HIV.

A further challenge is the engagement of other companies in Europe and building up additional financial resources that would allow expansion of the work. This private sector initiative has limited coverage for the time being. However, in 2017, thanks to targeted promotion activities, Djibouti’s container terminal Doraleh with more than 1,100 employees joined the programme with the concern that dockers and truck drivers are at high risk of contracting TB and HIV. The company therefore selected 17 employees to be trained as peer health educator active first at the workplace, and later in Djibouti’s slums.

The case of BE Health demonstrates that, as a third party between the public health sector and communities, corporations can positively contribute to reducing suffering and deaths from killer diseases by engaging employees, mobilising the local community, and providing financing and management expertise to make knowledge transfer and empowerment possible as well as ensure the effort is effective and sustainable. Although confronted with important challenges, the results of the first few years of activities indicate that BE Health and similar corporate sector social commitments may generate major benefits to local communities. At the same time BE Health brings indirect benefits to the corporate entity such as in-house social coherence through a common objective with impact, shared values with the local community, development of a business environment, and an increase of internal and external reputation. Maximising health interventions in different countries and cultural contexts is a social value that could articulate and promote a company’s strategy for durability and quality of workplace, products and services.

8. Conclusion

As countries move towards universal health coverage and closing the gap in reaching those missed by the formal health services and systems, the corporate sector is a vital partner whose potential remains largely untapped. The approach and the model of BE Health need to be assessed, harnessed and expanded to complement efforts of the public health sector and its key programmes such as those addressing TB. Success towards ending TB is though based on effective cooperation complementing the biomedical approach with preventive and social engagement. An organisation such as BE Health is working upstream through prevention activities, functioning as a third party between healthcare centres and TB/HIV high-risk and underprivileged populations. Each working from a different angle, positive cooperation between the public and private sector is a prerequisite to jointly address the hidden burden of TB. Cooperation treasures the capacity to create solidarity and is a meaningful key that has major implications by providing empowerment, proper care and support to people and communities affected.

Author Contributions
All authors (AMB, HMD, GBM, MCR) conceived the study, wrote different sections and approved the manuscript.

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Declaration of Competing Interest
The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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