An Integrated and People-Centred Approach for Research and Disease Control: Suggestions for the National Public Health Institute of South Africa (NAPHISA)

**Introduction**

Research and control of disease and injury are going to be the core functions of the National Public Health Institute of South Africa (NAPHISA). This document seeks to make suggestions on legislation that will enable NAPHISA to achieve an integrated people-centred approach to all operations for effectiveness, efficiency, and sustainability. We will use an example of “Eradication of tuberculosis (TB)”, in order to illustrate the concepts involved. Thus the key elements for discussion will be under three headings, namely: (1) prevention of deaths from TB; (2) proposed interventions to eradicate TB; and (3) an integrated people-centred approach for NAPHISA.

Prevention of deaths from TB

Tuberculosis is easy to identify, is eminently curable and preventable; yet it is the number one cause of death in South Africa. According to Statistics South Africa the disease was responsible for 33 000 deaths in 2015, or 7.2% of all deaths that year, as shown in Table 1 below.

**Table 1: Deaths from TB, HIV, and Diabetes mellitus (DM) in 2015**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Prov** | **Deaths2010** | **Deaths2015** | **Population15** | **TB15** | **HIV15** | **DM15** | **TB15%** |
| NC | 15 118 | 13 725 | 1 185 600 | 1 061 | 857 | 692 | 7,7 |
| FS | 44 992 | 31 891 | 2 817 900 | 2 098 | 1 361 | 1 603 | 6,6 |
| EC | 80 459 | 68 303 | 6 916 200 | 5 874 | 4 073 | 3 333 | 8,6 |
| NW | 40 006 | 33 343 | 3 707 000 | 2 738 | 1 350 | 1 560 | 8,2 |
| LP | 49 568 | 50 448 | 5 726 800 | 3 071 | 1 091 | 2 930 | 6,1 |
| WC | 45 634 | 50 068 | 6 200 100 | 2 663 | 2 995 | 3 574 | 5,3 |
| MP | 41 476 | 34 111 | 4 283 900 | 2 704 | 1 674 | 1 775 | 7,9 |
| GP | 105 001 | 97 982 | 13 200 300 | 5 401 | 2 650 | 4 199 | 5,5 |
| KZN | 115 294 | 81 039 | 10 919 100 | 7 342 | 4 915 | 5 309 | 9,1 |
| **Total** | **537 548** | **460 910** | **54 956 900** | **32 952** | **20 966** | **24 975** | **7.2** |

**Source**: Statistics South Africa, Report on Mortality for 2015, and Mid-Year Population Estimates. In this table the provinces are listed according to number of TB deaths per 100 000 population, from the largest. The total population of the first 4 provinces constitutes 26% of the total for all the provinces, yet they contributed 36% of the TB deaths in 2015.

The drivers of deaths from TB are four, and are (a) the weakness of the health system and poor control of TB; (b) poverty and unemployment, with associated poor nutrition and poor access to health care; and most importantly, (c) community dependence on government services without effective participation in disease control. The importance of genuine and effective community participation is that it can also help to address both the weakness of the health system and poverty, within the context of human development. Indeed, the National Health Act of 2003 has emphasized community participation on numerous occasions in the text, but the mechanisms for implementation at Municipal Ward level have not been specifically strengthened for the health system. Both HIV and diabetes mellitus (DM) depress the immune system and favour the increase in TB sufferers and deaths. Thus the deaths from the three diseases, (TB, HIV/AIDS, & DM) need to be addressed together, as they jointly contributed 79 000 deaths (or 17.1%) to national mortality figures (Table 1).

Proposed interventions

From the above summary, the prevention of deaths from TB will entail identification of all TB infected persons in one municipal ward at a time, investigation and treatment of all the infected persons and contacts, and prevention of spread to vulnerable persons like small children and HIV infected persons. The whole chain of operations, from fund-raising, research to identify infections, and appropriate treatment will require an integrated and people-centred approach.

The integrated people-centred approach

The integrated people-centred approach implies three things. Firstly, the process of addressing of all the factors that increase the numbers of TB infections at the same time, both within and outside of the health system; and secondly, using all resources of the geographical community in a sustainable manner. Thirdly, there should be a seamless partnership of all relevant government departments and community structures. The latter need to be enabled by **legislation** to raise funding from the households, and also establish partnerships with health professionals. One example is that of a **Ward Health Committee** (WHC) that could operate under the auspices of the Ward Councillor and engage doctors to work in health facilities within the ward. The WHC could also provide oversight for effective functioning of Community Health Workers (**CHW**). Another example is that of recruitment of data collectors by community leaders from within the ward. The raising of funds for disease control could also be done across all stakeholders, as shown in Table 2 below:

**Table 2: Sources of Funding for TB eradication**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Source | Description | Amount |
| 1 | Department of Health | 6 x CHW @R2 500 pm x 12 months | R180 000 |
|  | Department of Health | 2 x CHW Supervisors @R3 000 X 12 months | R72 000 |
| 2 | Public Works: EPWP | 40 x Labourers @R4 000 (Once-off) | R160 000 |
| 3 | Community/Municipality | 3 000 x Households @R10.00 (Once-off) | R30 000 |
| 4 | Other (eg Lotto, etc) | To be approached by Municipality/Community | R110 000 |
|  |  | **Total** | **R552 000** |

In the above table the community raises R10.00 per household for payment of data collectors, and that is arranged in close collaboration with the Local Municipality (which usually does not have the resources in most poor rural areas that have a lot of TB deaths). It should be noted that communities used to build their own schools and clinics by raising 20% of the costs, and the government contributing the other 80%. That system worked very well, and was quite empowering for communities. Furthermore, collaboration by government department should be strongly encouraged, or even enforced by **legislation**. The NAPHISA Bill can play an important role in this regard.

Again in the above table, we illustrate the principle of an integrated people-centred approach by using job creation to strengthen the health system in a way that addresses poverty and unemployment. Community participation is represented by household contributions amounting to R30 000 which constitutes 5.4% of the total cost. In our example (Table 2) there are 8 permanent jobs, and 40 temporary jobs per municipal ward. Thus for the 706 municipal wards in Eastern Cape, and a total of 40 000 jobs can be created, and the 5 874 TB deaths prevented completely within 10 years (Table 3). Yes, removal of TB deaths plus deaths from HIV and Diabetes, would result in huge economic benefits for the whole country within 10 years! Furthermore, the eradication would greatly facilitate the evolution of universal health coverage (known as the national health system, NHI). Therefore there is a good case for prioritization of eradication of communicable diseases like TB and HIV in the work of the NAPHISA.

**Table 3: TB Deaths per year and Proposed Job Creation in Eastern Cape Districts**\*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **District** | **Wards** | **All Deaths** | **TB Deaths** | **Perm\_Jobs** | **T\_Jobs** | **Cost** |
| Alfred Nzo | 101 | 4 980 | 290 | 808 | 5 050 | R55 752 000 |
| Amathole | 120 | 12 030 | 1 203 | 960 | 6 000 | R66 240 000 |
| Buffalo City | 50 | 9 061 | 854 | 400 | 2 500 | R27 600 000 |
| Cacadu | 73 | 4 986 | 421 | 584 | 3 650 | R40 296 000 |
| Chris Hani | 111 | 8 360 | 701 | 888 | 5 550 | R61 272 000 |
| Joe Gqabi | 45 | 4 045 | 264 | 360 | 2 250 | R24 840 000 |
| Nelson Mandela | 60 | 11 066 | 885 | 480 | 3 000 | R33 120 000 |
| O R Tambo | 146 | 13 775 | 1 256 | 1 168 | 7 300 | R80 592 000 |
| **Total** | **706** | **68 423** | **5 874** | **6 816** | **35 300** | **R389 712 000** |

\***Data Source: SALGA for number of wards in 2016, & Stats SA Feb 2017 Report for Deaths in 2015.**

Conclusion and Recommendations

An integrated and people-centred approach has been adopted by the World Health Organization for the health sector, and is hereby strongly recommended even beyond the health sector for its efficiency, cost-effectiveness, and sustainability. Therefore there is a need for legal or **legislative mechanisms** in the envisaged National Public Health Institute of South Africa (NAPHISA) to consider enabling the following 4 issues:

1. Formation of a structure called “**Ward Health Committee**” (**WHC**), with the aim of enabling the Municipal Ward community to raise their own funding for research and health care interventions, and in close collaboration with the Local Municipality. The signatories for the funds could be the Ward Councillor, the Traditional Leader, plus one other member. The functions of the WHC could also include (a) oversight for more effective functioning of community health workers; (b) negotiation of partnerships within the health sector, as exemplified by engaging of doctors to assist in the clinics; and (c) facilitating normalization of remuneration of community health workers;
2. **Effective operational partnerships** among government departments, in order to ensure the success of integrating health system strengthening, poverty alleviation through job creation and social grants, and community participation at municipal ward level. Effective operational partnerships of government departments have already been established for Operation Sukuma Sakhe (OSS) in Kwazulu Natal Province, and it works well. For TB eradication, the key government departments would be Health (health system strengthening), Agriculture (for nutrition and food security), Social Development/SASSA (for social grants), and Public Works and Labour (for job creation). These partnerships are very important as eradication of TB goes beyond the policy guidelines of the Department of Health;
3. Getting all research and interventions to be performed using the **resources** (human, material) within the municipal ward, from the simplest to the most sophisticated activity. Examples include: recruitment and training of field workers, data analysis and report writing, accommodation (for training and meetings), food, transport, and others; and
4. Getting the Local Municipality and Ward community to have unrestrained access to the **research data** when they need it. The Municipality could have custody of the data on behalf of the various ward communities.