Creation of Public Health Cadre in Karnataka State, India
Giridhara R Babu1, TN Sathyanarayana2, Suresh S Shapeti3, Srikanthi4, PN Halagi5, HN Raveendra6

Abstract
Background: Public Health is the science and art of promoting Health, preventing diseases and prolonging life through organized efforts of Society. The Government of Karnataka constituted a committee to revive the Public health system in state of Karnataka to provide recommendations for creation of Public health cadre. Objectives: To provide recommendations for creation of efficient public health system through creation of public health cadre. Methods: We reviewed several documents for studying the history and current structure of the department regarding creation of public health cadre/department. We conducted 35 brainstorming sessions involving in-depth discussions. We also conducted field visits and administered a pre-designed format for collecting the feedbacks from the officials of different levels. Results: The reviewed documents had a common finding of implementing public health cadre. Our analysis of current human resources in health department indicates that there is shortfall of qualified public health professionals in the department to opt and continue in public health cadre. Among the existing staff, 51% of the respondents wanted to update their skills through continued professional education. Our results from the study demonstrated to create a Public health directorate and public health cadre in Karnataka state. Conclusions: We recommend that there can be three levels in Public Health Cadre namely, Taluk level officers, District level officers and State level officers. We recommend time bound promotions of medical officers in accordance with published and updated common seniority list, which is the basis for all service matters.

INTRODUCTION
The public health scenario in India is shadowed by overwhelming public health problems compared to reasonable accomplishments. India has made substantial progress in provision of health services during the past century including eradication of small pox, plague, and guinea worm infection, and is almost on the verge of stopping polio transmission. In recent years, implementation of the National Rural Health Mission (NRHM) has resulted in gradual progress in terms of reducing infant and maternal mortality. There are several public health challenges including large rural-urban inter-regional differences in health indicators, high infant and maternal mortality in some regions, under-nutrition in children, women’s health, mental health, and disability care. In addition, India is passing through epidemiological transition managing dual burden of communicable as well as Non Communicable Diseases. These problems have been compounded by the lack of training in public health as well as the lack of a public health cadre in the health workforce. In spite of the massive advancements in technology, public health essentially remains a highly human resource intensive process.

There are deficiencies of requisite manpower at different levels, gaps in training status, weak program management and weak surveillance at district, block and community levels. In order to formulate and implement the public health activities in the country, a uniform public health cadre is the need of the day. Karnataka had Mysore state Public Health Act, due to which public health department of the state was renowned as one of the best in the country. However, over decades following independence there was gradual decline in public confidence in public sector health services. One of the reasons for low confidence on public health sector service is, lack of credibility and quality of services was quoted as main factor and which in turn adversely affecting the functioning of all national health programmes. This problem has been compounded by

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the lack of training in public health to various officials in the department of health & family welfare services (H&FWS). The state government of Karnataka constituted a committee to review all the earlier reports, study the current status and further recommend strategies for implementing public health cadre in the state. The objectives of the committee were to provide implementable recommendations on health work force to match the aspirations of Government for efficient delivery of health care services and to recommend the strategic approach for creation of efficient public health cadre.

Table 1: Number and type of documents reviewed and number deliberations

<table>
<thead>
<tr>
<th>Sl. No</th>
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<th>Frequency</th>
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<tbody>
<tr>
<td>1</td>
<td>Number of policy documents reviewed</td>
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<tr>
<td>2</td>
<td>Number of committee reports/recommendations reviewed</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Regulations/ Legislations/acts/rules</td>
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</tr>
<tr>
<td>4</td>
<td>Other documents reviewed</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Number of deliberations</td>
<td>35</td>
</tr>
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Table 1 depicts the summary of total number, type of documents and deliberations being undertaken to propose the balanced recommendations to create public health cadre.

Table 2: Displaying the type of documents used for the review

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<thead>
<tr>
<th>Sl. No</th>
<th>Type of documents reviewed</th>
<th>Relevance*</th>
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<tbody>
<tr>
<td>1</td>
<td>Government order No. HFW (PR) 144 WBA 2002, Bangalore, dated 10-2-2004;</td>
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<tr>
<td>2</td>
<td>Proposed draft of Public Health Directorate for department of H&amp;FWS, Government of Karnataka, Palekar committee (2009);</td>
<td>++++</td>
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<tr>
<td>3</td>
<td>Report of Task force of Health for Karnataka;</td>
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<tr>
<td>4</td>
<td>Karnataka Gnana Ayoga report regarding Public Health Directorate;</td>
<td>+++</td>
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<tr>
<td>5</td>
<td>Ferguson report;</td>
<td>+++</td>
</tr>
<tr>
<td>6</td>
<td>Establishment of Public health cadre in state by Dr.K.K.Dutta;</td>
<td>++++</td>
</tr>
<tr>
<td>7</td>
<td>Study of Public health directorates of other states in India- Advantages and limitations;</td>
<td>++++</td>
</tr>
<tr>
<td>8</td>
<td>Report of Independent commission on Health of India, by VHAI</td>
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</tr>
<tr>
<td>9</td>
<td>Present need of Preventive public health care;</td>
<td>++++</td>
</tr>
<tr>
<td>10</td>
<td>Mysore Public Health services Act, 1936;</td>
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<td>11</td>
<td>Relevant legislations/rules and regulations and other documents (such as Atomic Energy Regulation Board) AERB rules,.</td>
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<td>Consumer Protection Laws:- The COPRA, Indian Penal Code- Section 269,</td>
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<tr>
<td>13</td>
<td>Acts of commission, omission and Medical negligence,</td>
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<td>14</td>
<td>Biomedical Waste management,</td>
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<td>15</td>
<td>Pollution control Act,</td>
<td>++</td>
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<td>16</td>
<td>Private Medical Establishments Act Karnataka,</td>
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<td>17</td>
<td>Clinical establishments Act, Government of India,</td>
<td>++</td>
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<td>18</td>
<td>Mysore Public Health Act,</td>
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<td>19</td>
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<td>21</td>
<td>Epidemic Diseases Act,</td>
<td>++</td>
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<tr>
<td>22</td>
<td>Proposed Karnataka Prevention of Diseases Bill, 2010,</td>
<td>++</td>
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<tr>
<td>23</td>
<td>Karnataka Public Health services, Recruitment rules of 1960,</td>
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<td>24</td>
<td>Social legislations affecting Health; Physically handicapped Act, Minimum wages Act ,</td>
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<tr>
<td>26</td>
<td>Cadre &amp; Recruitment rules, 1991</td>
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*(1+ min-5+ maximum)
MATERIALS AND METHODS

Stage 1, Review of the relevant documents:

The committee initially examined the existing organizational structure of department of H&FWS and reviewed the several documents for studying the history and current structure of the department regarding creation of public health cadre/department and to address the task of restructuring of the health workforce. The key documents reviewed were: The Karnataka State Integrated Health Policy-2001- Government order No. HFW (PR) 144 WBA 2002, Bangalore, dated 10-2-2004; Proposed draft of Public Health Directorate for department of H&FWS, Government of Karnataka; Palekar committee (2009); Report of Task force of Health for Karnataka; Karnataka Ganna Ayoga report regarding Public Health Cadre/department; Establishment of Public health cadre in state by Dr.K.K.Dutta; Study of Public health directorates of other states in India- Advantages and limitations; Report of Independent commission on Health of India, by VHAI; Present need of Preventive public health care; Mysore Public Health services Act, 1936; Relevant legislations/rules and regulations and other documents (such as Atomic Energy Regulation Board) AERB rules, Consumer Protection Laws:- The COPRA, Indian Penal Code- Section 269, Acts of commission, omission and Medical negligence, Biomedical Waste management, Pollution control Act, Private Medical Establishments Act Karnataka, Clinical establishments Act, Government of India, Mysore Public Health Act, Food Safety Act, Notifiable Diseases Act, Epidemic Diseases Act, Proposed Karnataka Prevention of Diseases Bill, 2010, Karnataka Public Health services, Recruitment rules of 1960, Social legislations affecting Health: Physically handicapped Act, Minimum wages Act, Time bound promotion of Assistant surgeons/ Health officers, 1991.Cadre & Recruitment rules, 1991.)

Stage 2, Brainstorming sessions

The committee conducted 35 brainstorming sessions involving in-depth discussions. Each member had submitted individual reports and feedbacks on the objectives. Further, the committee deliberated on each member’s suggestions. The process was independent with clear expression of different views on several topics were captured. The proceedings of these meetings are recorded and available with the Karnataka State Health Systems Development and Reforms Project (KHSDRP).

Stage 3, Field health staff interview:

The committee conducted field visits and has administered format for collecting the feedbacks from the officials of different levels. A total of 47 staff, from ANM to the Deputy Director (HR) should update the list regularly and Deputy Director (HR) shall report directly to proposed position of DGHS.

Recommendation-1:

Three levels of health cadre

The committee recommends that there shall be three levels in Public Health Cadre namely, Taluk level officers (block level), District level officers and State level officers. The entry level for Public health cadre shall be at the level of Taluk health officer. Cadre-wise common feeder seniority list shall be published and updated every year, which shall be the basis for all service matters. All the promotions will have to be based on cadre-wise feeder seniority list and required post-graduate qualifications. (Figure.2)

Recommendation-2: Entry level

For the long-term management of public health cadre, general duty medical officers (GDMOs) shall be given an option after completing three years of rural service to pursue post-graduation in public health or clinical services or hospital administration. However, to address the immediate shortfall of public health trained workforce, the state government can prioritize and offer post graduate (PG) training by preparing a comprehensive list of officers who have undergone training in both clinical and public health cadre. Proposed Deputy Director (HR) shall update the list regularly and Deputy Director (HR) shall report directly to proposed position of DGHS.

Recommendation-3:

First level of public health cadre

The post of Taluka Health Officer shall be filled up by a Medical Officer who has completed a minimum of 5yrs of rural service, with Public Health Specialization. In case of non-availability of such a candidate, an MBBS qualified Medical Officer, based on seniority and 6 years of rural service, shall be sent to complete a recognized post-graduate diploma or Masters
course in Public Health and be posted as Taluka health Officer. There should not be one-person holding charge of both Taluka Health Officer and Administrative Medical Officer, at one time, in a Taluka/block.

**Mandatory qualifications** as minimum requirements to be qualified as a Public health specialist:
- Should be eligible as per common seniority list in the feeder cadre (with at least six years of rural service including rural service in the contract period) and postgraduate qualification in public health.
- A degree/diploma in public health would be a mandatory qualification
- A recognized MD in preventive and social medicine
- Masters in Public Health (MPH)/ Master of Science (Public Health)/ or recognized as equivalent by universities/Government.
- Post-graduate diploma in public health or equivalent offered by recognized universities or recognized institutions.

**Short-term measures:** At present, there is shortfall of qualified public health professionals in the department to continue in public health cadre. Therefore, state government can conduct counseling with immediate effect to identify medical officers interested in pursuing public health cadre/clinical services and should allow to pursue public health qualification/clinical courses/hospital administration. At the counseling, list of medical officers (who have completed six years of rural service and based on seniority) should be prepared based on the common seniority, and be given option to complete post-graduation in public health. Counseling should provide options of both public health training and post graduate courses in clinical branches.

- The committee further recommends that deputation of medical officers is to be done in batches of 30-50 to recognized public health institutions in the state/country to complete the backlog of training. After the successful completion of post-graduate training, these officers should be posted as Taluk Health Officers and they shall continue in public health cadre for the remaining service period.
- The committee feels that public health is predominantly field-based discipline with associated administrative, technical and management skills. Hence, no dilution should be accepted by the government in providing highest quality of post-graduate training and orientation in imparting public health skills.
- However, those who do not opt for post-graduate qualifications in either clinical or public health specialties and those do not attend counseling (after the notification on departmental website), shall be deemed to have foregone all the promotional opportunities in the department. Such officers would continue as medical officers for the rest of their career with time bound financial benefits. The age for the above shall

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**Figure 1:** Proposed Organogram- Senior Management

SAST: Swarnare Anugraha Saraswati Trust, AYUSH: Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy
KSAPS: Karnataka State AIDS Prevention Society, SDHI: State Institute of Health & Family Welfare Services

Figure 1 illustrates the proposed organogram of the public health cadre at state level; the director general of health may be overall in charge of technical and administrative authority for major technically intensive wings of the health services. Figure 2 shows the recommended state level director of public health services organogram.

**Figure 2:** Structure of Proposed Directorate of Public Health
be as in Karnataka state civil service rules.

All the above points are also being suggested by several earlier committees such as: The Karnataka State Integrated Health Policy-2001; Karnataka State Task Force on Health, Ferguson report and Dr. Palekar Committee and Karnataka Gnana Ayoga and Karnataka Public Health Act (2010-draft under discussion by KILPAR).

**Recommendation - 4:**

**Second level of Public Health Cadre- District level**

The Committee recommends that the second level of public health cadre be at district level as a unit comprising of District Health Officer (DHO) and all the district level program officers.

**District Health Officers:** The Committee recommends that the eligibility for the post of District Health Officer should be that of seniority cum merit and public health specialization. (Table 3, 4) (Figure 3).

- The officer should be eligible as per common seniority list in the feeder public health cadre. The officer should have completed a minimum of 15 years of regular service inclusive of 6 years of rural service, with a recognized public health degree/diploma. The officer should possess management and supervisory skills demonstrated either as Taluk health officer/Administrative Officer at CHC and/or as a district level program officer. The officer should have a good track record.
  - A degree /diploma in public health would be a mandatory qualification. The committee recommends the following post-gradu-
ate courses as minimum requirements to be qualified as a Public health specialist:
- A recognized MD in community Medicine or preventive and social medicine
- Masters in Public Health (MPH)/ Master of Science (Public Health)/ or recognized as equivalent by universities/Government.
- Post-graduate diploma in public health or equivalent offered by recognized universities or recognized institutions.

**District Program Officers:**

These Officers shall be Senior Specialists/Deputy Chief Medical Officers who are eligible as per seniority cum merit, who have completed 6yrs of rural service and a total of at least 10 years of service, as depicted in the organization. In the present scenario if such a candidate is not available, then a Medical Officer in the cadre of Senior Specialist/Deputy Chief Medical Officer who has eligibility as per seniority and has undergone a course/training in Public Health should be considered. (Table.4) (Figure 3).

Further, if such a candidate is not available, then a medical officer as per common seniority list in the feeder public health cadre applicable should be deputed to pursue post-graduate courses in public health as mentioned in recommendations above. The committee strongly recommends that only on successful completion of post-graduate courses in public health, the eligible officers be posted as District Program Officers.

**Short-term measures**

To address immediate shortage of qualified public health professionals in the department, a
<table>
<thead>
<tr>
<th>Levels of functioning</th>
<th>Designation</th>
<th>Minimum Qualification proposed</th>
<th>Designation</th>
<th>Minimum Qualification proposed</th>
<th>Experience in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster of villages</td>
<td>Medical officer</td>
<td>Medical graduation</td>
<td>Block/Taluk health officer</td>
<td>PG in Public Health + from the pool of SMOs</td>
<td>0</td>
</tr>
<tr>
<td>Block/Taluk level</td>
<td>Block/Taluk health officer</td>
<td>PG in Public Health + from the pool of SMOs</td>
<td>Block/Taluk hospital superintendent</td>
<td>PG in Clinical Speciality + from pool of PHC medical officers</td>
<td>6</td>
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<tr>
<td>District level</td>
<td>District Health Officer</td>
<td>PG in Public Health + from the pool of common feeder cadre (sr. specialists in Public Health cadre)</td>
<td>Dist. Surgeon/ Dist hospital head and RMO</td>
<td>PG in Clinical Speciality + from the pool of Senior specialists in feeder Medical cadre</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>DPO (District level Program Officers)</td>
<td>PG in Public Health + from the pool of SMOs/THOs</td>
<td>Deputy Directors (Clinical Specialities)</td>
<td>PG in Clinical Speciality + from the pool of common feeder cadre</td>
<td>15</td>
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<tr>
<td>State level</td>
<td>Deputy Directors (Public Health Specialities)</td>
<td>PG in Public Health + from the pool of common feeder cadre (sr. specialists in Public Health cadre)</td>
<td>Joint Directors (Medical Specialities)</td>
<td>PG in Clinical Speciality + from the pool of common feeder cadre/Sr. Specialists in Clinical cadre</td>
<td>20</td>
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<tr>
<td></td>
<td>Joint Directors (Public Health Specialties)</td>
<td>PG in Public Health + from the pool of common feeder cadre (sr. specialists in Public Health cadre)</td>
<td>Additional Directors (Medical Specialities)</td>
<td>PG in Clinical Speciality + from the pool of common feeder cadre/ Joint Directors in Clinical cadre</td>
<td>20</td>
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<tr>
<td></td>
<td>Additional Directors (Public Health Specialities)</td>
<td>PG in Public Health + from the pool of common feeder cadre/ Additional Directors in Public Health Cadre</td>
<td>Director (Medical Services)</td>
<td>PG in Public Health + from the pool of Additional Directors + common feeder cadre/ Additional Directors in Clinical Cadre</td>
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<tr>
<td></td>
<td>Director (Public Health)</td>
<td>PG in Public Health + from the pool of Additional Directors + common feeder cadre/ Additional Directors in Public Health Cadre</td>
<td>Director (Medial Services)</td>
<td>PG in Public Health + from the pool of Additional Directors + Medical Services</td>
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<td>Director (SIHFW)</td>
<td>Common feeder cadre/ Additional Directors in Public Health or Medical Speciality cadre</td>
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<td></td>
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One time intensive course is to be offered for the eligible doctors as per the following recommendations. This measure is recommended ONLY for district and state level to address immediate shortfall. A Public health institution recognized by Government, preferably in Karnataka, must be requested to design and offer a customized course to suit the requirements of the public health needs of Karnataka state such as:

a) The proposed course shall be module and assignment based;
b) The course shall have two modules of three months each and assignments to be carried out in the place of work;
c) The candidate shall take qualifying examination on completion of both modules; the successful candidates shall be conferred Post-graduate diploma in public health and a cluster of 10 DHOs, 10-15 District level program officers and 30 Taluk health officers (THOs) should be posted for in-service training of three months duration.

**Recommendation-5:**

**Third level of Public Health Cadre**

State level and establishment of public health directorate to provide coordination, data integration and technical supervision across the department. In addition there should be a position for coordination, to be occupied by an officer with technical qualification with management training. Health sector is a fast growing sector with exponential increase in content and scope of services being rendered. It needs better technical and management coordination and convergence across several technical functions. (Table 4) (Figure 3).

Therefore, the Committee recommended that-

- The third level of public health cadre shall be at the state / regional level as a unit comprising of Director of Public Health, additional directors, joint directors and deputy directors. This level provides leadership for the entire state for efficient public health delivery system so as to ensure the goals set by national health plans such as millennium development goals for health.
- A post of Director is to be created to exclusively head the public health directorate. In total, there will be two posts of Director; one for Public health and another for medical services.
- The Director (Public Health) shall be head of the directorate of public health. The officer will be in charge of all administrative and financial matters related to the cadre of public health and programs implemented in public health activities, and will be supervising officer for additional director reproductive and child health (AD-RCH), additional director communicable diseases (AD-CMD) and additional director AIDS (AD-AIDS).

**Recommendation-6:**

**Director of Public Health Position**

The post of Director of Public Health shall be selected with guided criteria of:

a) A senior Public health Specialist, with minimum 20 years of service in the department as per seniority cum merit;

b) Must have completed post-graduate courses in public health as per recommendations given earlier in this report;

c) Has shown exemplary achievement in upholding the principles of public health and

d) Has shown good leadership skills in earlier positions held.

**Recommendation-7:**

**General overarching recommendations**

In addition to the present posts and suggested cadres at the state, district, taluk and PHC levels, the following recommendations were arrived through consensus. (Table 3)

**DISCUSSION AND FUTURE DIRECTION**

The health professionals who have been serving in clinical services at different levels may not be possible to automatically switch and master the set of health management skills that are integral part of health administration. Therefore, public health management competencies acquirement should be part of systemic approach to apply, develop, evaluate and recognize the health cadres. Health management competencies among consciously chosen health professionals may be rigorously trained and assessed. Further legitimize the qualified health administrators through system public health cadre process through assisted career framework for appropriate workforce planning.

A good foundation of public health is considered as complimentary to curative medicine, as a part of “Comprehensive Health Care”. The concept of reorganization of the department and creation of public health cadre is an earnest step towards realizing various goals. The suggested recommendations are meant for reorganization of the public health cadre in Karnataka state by way of redesigning, revamping, and relocating of posts, which came up through dynamic thought process supported by wealth of evidence from the state. Such context specific reorganization of health systems to
be conducted in a periodic manner helps in bringing about changes in the aspirations and goals of the health care professionals, especially medical officers who can plan their career in public health sector. Such reorganization can help bring novelty of approach in dealing with current public health scenario in Karnataka state. This step will only be start and the state has to implement several steps towards ensuring provision of adequate public-health services for the people of Karnataka.

The process of reaching these recommendations was challenging given that major reforms could not have been done in the immediate period of the committee. Best practices from other states in India were incorporated, wherever possible. We have to admit that there was not ideal ‘model’ that states in India can easily emulate from. However, the report itself is a testimony that the thinking is shifting from an individual-based approach to a population-based approach with an aim to make equitable and universal provision of public health services. Efforts to incorporate and address local requirements and challenges within our state were an additional focus of this public health approach. The reality is that, human resources (HR) are a weak component in our health system and this has been reflected throughout the experiences of policy makers for the last few decades. We infer that the key principles in improving HR include standardization and simplification of procedures to support efficient recruitment, promotion and sustenance in different positions, provision of appropriate and adequate training to these professionals and sustain motivation levels. Earlier evidence suggests our finding that Human resources is an important determinant of the efficiency of health system. The goal is to create a competent workforce that can independently manage routine activities and can be very efficient in accomplishing the best results even under public health emergencies such as SARS outbreak.

Recently the call for universal health coverage by Lancet group and further recommendations of HLEG have set in renewed vision and strategy for the creation of public health cadre in India. In particular, HLEG recommends for introducing all India and state level Public Health Service Cadres. The process of development of report on public health cadre in the state of Karnataka was occurring concurrently. Most of the findings in this report are in line with recommendations of HLEG report. As ‘Health’ is a state subject, the infrastructure and organization varies from state to state. A strong public health organization in the state is an important requisite for improvement of health standards, which further contributes towards overall socio-economic development of the state.

Some of the recommendations in this report were focused on task shifting and task capacity building. These recommendations are in conformity with results from country consultations by World Health Organization (WHO) in 2006, involving Ethiopia, Haiti, Malawi, Namibia, Rwanda and Uganda. This helped to identify the themes that needed to be addressed by the recommendations and guidelines on task shifting. It also established, that the development of the recommendations and guidelines would be a process led by countries with direct experience of implementing the task shifting approach to increase access to health services. The role of a public health manager is extremely complex and needs dedicated training. The tasks of a public health department would include managing health programmes, incorporating prevention into the ambit of health programs, addressing health needs of the population as a whole, reducing the burden of disease, reducing premature death and disease produced discomfort and disability in the population, promoting healthy life styles among the population and helping to create supportive environment for health in communities. Hence, the training provided to create the cadre of PHPs should enable them to function as a multi-dimensional manager addressing health protection, health promotion, rehabilitation, and sustenance and through collective and social action. As per Karnataka state integrated health policy-2001, incorporating research into decision-making and implementation of programs should be the next step would be useful for providing evidence-based solutions to existing problems.

The final goal of any progressive state is to ensure efficient service delivery. The current report covers only the overarching structure and lays the foundation for series of action points towards successful implementation of the proposed cadre. Future work has to concentrate on improving the performance of PHPs in the public health cadre through improving inclusion of paramedical workers and thereby ensuring wider coverage. It is also vital to identify ways and methods through which the motivation of the workers is sustained. Building knowledge, skills and improving efficiency to promote the competencies of workers is a continuous process. Future work should concentrate towards...
these goals. We consider that through dissemination of this report, the experts, different stakeholders; Governmental agencies and public provide important constructive inputs to further strengthen the process of policymaking and implementation.

LIMITATIONS

The public health specialist functions are combination of multiple disciplines ranging from demography, social science, economics, epidemiology and bio-statistics etc. Though public health workforce comprises of health administrators to public health nurse, laboratory personnel, water quality analysts etc, but this is beyond the scope of this review to address career path for range of allied public health professionals. Therefore, this report focuses on Karnataka state specific distinct core public health cadre/administrators who are likely to be trained as public health specialists.

ACKNOWLEDGEMENT

We would like to thank Shri. Madan Gopal, IAS, Secretary, Dept of Health and Family Welfare services, Government of Karnataka for valuable guidance and support towards public health cadre. We would like to thank public health foundation of India for providing institutional support for carrying out this work. We thank Dr.S.C.Dharwad who was member on the committee and provided valuable feedback. We also thank Dr.Sridhar, KHSDRP and convener of all the meetings of the committee. We also thank Dr.Raman Reddy, IAS for constitution of committee for creation of public health cadre.

REFERENCES