pISSN 2394-6032 | eISSN 2394-6040

Original Research Article

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20173351

Strategic approach selection for public health through evidenced analytical tools

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Received: 12 June 2017 Revised: 05 July 2017 Accepted: 06 July 2017

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ABSTRACT

Background: The multi-dimensional perspectives of evidence based public health strategic approaches necessitates use of efficient analytical tools towards decision making for project and programmatic interventions on a larger framework of policy, behavior and resource utilization.

Methods: Respondent driven sampling (RDS) was obtained through discussion, interview and participation in the status assessment questionnaire devised for the study.

Results: Lack of new initiatives supported by non-dissemination of findings of research (75%), difficult logistics management (67.39%), unaddressed training needs (46.67%), lessons learnt remaining untransformed into actionable inputs (82.60%) and less emphasis on monitoring cum evaluation (44.56%) is observed respectively while assessing quality adherence, program design, vision statement and choices of public health approaches.

Conclusions: 'Comprehensive Management and Monitoring Approach' is found to be the best public health approach for project design, formulation, plan extension, implementation, monitoring, evaluation and revision thereby necessitating targeted interventions through well managed technical cum financial inputs.

Keywords: Approach, Analytical tools, Evidence, Public health, Strategy

INTRODUCTION

The beneficiary focused onsite interventions have been identified as preferred public health initiatives in developed countries. It hence underlines the importance of predominant and important factor identification for the purpose of identifying an effective and result oriented approach suitable to serve the needs of developing nations as well. The opportunities and challenges of demographic shifts require technical measures suited to behavior change and appropriate policy designs. ²

The strategic inputs have to address cross cutting issues of socio cultural dimensions, while fitting with the local

needs, requirements and preferences. Focus on IEC measures, intervention programs, facility provisioning and expansion along with extensive research has been identified as the ultimate gainful resource for the successful public health program in Singapore.³ It surely facilitates collaborative, correctional and coordinated inputs by all possible stakeholders.

Public health model supported by quality data and information dissemination drives has been observed to have impacted upon in improving the clinical outcome of the critical cases.⁴ Preservation and protection of environment, economy, agriculture and human health is the ultimate goal of spectrum of academic, research and interactive platform activities and hence public health

projects require precision and reliability of the implementable solutions especially for sick, needy, poor and downtrodden masses. Identification of measurable indicators, base line assessment, target setting, activity listing, financial and technical support have been identified for developing country specific public health needs. 6

Hence, the objective of this study was to identify replicable, useful and resource rich strategic approach for public health through evidence based and selected analytical tools.

METHODS

Using respondent driven sampling (RDS), the considered informal opinion of spectrum of stakeholders was obtained through discussion, interview and participation from amongst those having expertise in disease surveillance and data management in the status assessment questionnaire for this cross sectional study during January 2015 to December 2016 at People's College of Medical Sciences and Research Centre and allied health care facilities, Bhopal, Madhya Pradesh, India. 7.8 Although the questionnaire was well designed, focus was laid on identifying the key issues in line with the pilot study done earlier without much emphasis on sequencing of the questions framed for convenient sampling.

The participants unwilling to provide their considered technical cum suggestive opinions and suggestions were excluded from the study. The format of study was unlinked anonymous and hence ethical permission was not required. The tracking of data, data source and linkage of data to any known parameter of individual identity was broken at all possible levels of identity.

Data was analyzed using Epi Info[™] 7.1.4, a free software tool available at CDC (Centre for Disease Control) website: (http://wwwn.cdc.gov/epiinfo/7/)

RESULTS

The responses of health care providers, paramedics and non-medical stakeholders from urban and rural areas interacted with in this study were 58 (63.04%) and 34 (45.33%) respectively. Health care providers (21.74%), paramedics (48.91%) and non-medical stakeholders (29.35%) opined on spectrum of issues including quality adherence in public health interventions, challenges due to frequent changes in the preset program design, hindrances in clarifying the vision statement for the project, available approaches for planning and selecting the strategic approach from amongst the approach combination set ups (Table 1).

Table 1: Distribution of respondents (n=92).

Particulars	Health care providers	Paramedics	Non medical stakeholders	Total
Urban	12	26	20	58
Rural	08	19	07	34
Total	20	45	27	92

Table 2: Direct causes threatening quality adherence in public health interventions (n=92).

S. no	Causes identified*	No of respondents	%
1	Non dissemination of the findings of research among the stakeholders and lack of new initiatives	69	75.00
2	Difficult logistic management	62	67.39
3	Issues related to storage and transportation of medical supplies	56	60.86
4	Deficiency in project monitoring	51	55.43
5	Less emphasis on the training	45	48.91
6	Reporting delays	42	45.65
7	Non observance of universal safety precautions	20	21.74
8	Difficulties in the analysis of the result	11	11.95
9	Unavailable vital information	9	9.78

(*): Choice of multiple options permitted.

Deficiencies in the dissemination of the observed findings of research and lack of new initiative designs (75%) predominates as direct cause for threatening quality adherence in public health interventions, followed by difficult logistic management (67.39%), issues related to storage and transportation of medical supplies (60.86%) and deficiency in project monitoring (55.43%).

In addition, constraints of training (48.91%), delay in reporting (45.65%), deficiencies in observance of universal safety precautions (21.74%), limitations of analytical capabilities (11.95%) and lack of related vital information (9.78%) are the lead factors identified herein as the technical hindrances for effective and efficient public health interventions (Table 2).

Preset program designs require strict adherence to the universally acceptable and structurally sound cum principled public health initiatives. However, not emphasizing on the assessment with due address to the training needs (46.67%) and undecipherable entries made in the designated formats of data collection (11.95%) poses threats for uncontrolled dilution for achievement of the objectives set in the well thought design of a public

health project thereby having crippling effect on the planned initiatives. Unacceptable levels of deficiencies in computerized analytical frames (08.69%), non-observance of external quality assurance (14.13%) and huge cuts in the agreed manpower underlines the reasons for felt setbacks to the public health designs of a project (Table 3).

Table 3: Challenges observed by the respondents due to frequent changes in the pre set program design (n=92).

S No	Challenges*	No. of respondents	%
1	Unfulfilled/ Incompletely addressed training needs	43	46.67
2	Ambiguity in the filled formats	11	11.95
3	Absence of the computerized analysis	08	08.69
4	Unclear inclusion and exclusion criteria for public health assistance	06	06.52
5	Large number of health service providers	08	08.69
6	Non observance of EQAS (External Quality Assurance Scheme)	13	14.13
7	Changes in allocation of manpower	22	23.91

(*): Choice of multiple options permitted.

Table 4: Difficulties in writing of vision statement for the project (n=92).

S. no	Difficulties identified*	No. of respondents	%
1	Difficulties observed in improvement of performance based on the lessons learnt	76	82.60
2	Monitoring and evaluation not being preferred for inference derivation	41	44.56
4	Clarity in project development matrix	06	06.52

(*): Choice of multiple options permitted.

Table 5: Approaches unfolded.

Focused management approach	Comprehensive management and monitoring approach	Statistical cum dissemination approach
Easy and efficient Logistics Management ensured.	Easy and Efficient Logistics Management ensured.	All vital information made easily available.
Creat amphasis laid on the	Great emphasis laid on the Training.	Easy & efficient analysis of the results.
Great emphasis laid on the training.	Establish a failure proof monitoring	Ensuring dissemination of the findings of
training.	system.	project among Stakeholders.

Table 6: Selection of 'Strategic Approach' from amongst the approach combination set ups.

Preferred analytical tools #	Focused management approach	Comprehensive management cum monitoring approach*	Statistical cum dissemination approach
Target group and area	*	***	**
Related agencies	***	***	*
Inputs	**	***	*
Needs cofirmation	*	***	**
Policy priorities	**	***	**
Impact & Concerns	***	**	**
Feasibility	***	***	*
Sustainability	***	***	**
Total (*)	18	23	13

(*): Most appropriate strategic approach, identified through the present study; # Options given were (+), (++) and (+++).

Low emphasis on learning lessons for improvement in the technical performance (82.60%) is identified herein as the principal reason for clearly defining, describing and detailing the vision statements of a public health project,

whereas the minimal use of applicable recommendations obtained through onsite, concurrent and end term evaluation (44.56%) is fuelled for non-clarity in the vision statement by the unlinked and non-directional

focus of the project development matrix (06.52%) (Table 4).

The approaches, used in majority of large scale public health initiatives, include (a) focused management approach, (b) comprehensive management and approach, statistical monitoring and (c) cum dissemination approach (Table 5). However, each approach has its own merits and limitations, if observed as part of a macro study. Statistical cum dissemination approach is based on the analysis of results and its methodical sharing among the stakeholders, whereas the comprehensive management and monitoring approach is directed towards capacity building drives and long term monitoring plans.

The clarity of identified target groups, population and geospecific area, active involvement of related health care agencies, quality inputs and their sustenance, confirmation requirements, policy priority mechanisms, feasibility of approach and sustainability of project activities are highly marked in the approach namely 'Comprehensive Management and Monitoring Approach' as compared to other two primary approaches. Hence, the maximum marking (23 marks) is achieved by this approach as compared to focused management approach (18 marks) and statistical cum dissemination approach (13 marks).

DISCUSSION

Targeted surveillance and intervention programs have been highlighted to be important among the beneficiaries with proactive involvement and participation of health care functionaries in a Canadian study, which resembles with the results of this study underlining the importance of stakeholder involvement (75.00%), logistic management (67.39%) and efficient project monitoring (55.43%).

A study from Uganda has shown that concerted, sustained and focused measures at national level yield positive gains in terms of programmatic achievements and its sustainability due to the focused nature of training, resource concentration and well scrutinized cluster of public health interventions. The observations of this study also agrees with former as the frequent changes in the preset program design is found to necessitate assessing and addressing capacity building needs (46.67%), dissolving ambiguity of interventions among the health service providers (08.69%). The present study also underlines the importance of appropriate manpower allocation in line with the study done by Green, Halperin, Nantulya et al. 10

Health system in transition (HSiT) profiling has been stated to be important, in a Belgium study, for policy, guidelines and achievement of stated goals along-with comparative observance of the improvements over time. This study has also taken into account the benefits of

learning from past (82.60%) and deriving inferences from the sustained watch over the project implementation by established norms, means and measures (44.56%).

Kenya has identified the importance of identifying, sharing and using the well-studied strategies among all stakeholders alike using evidence based well-conceived long term plan of action.¹² The approaches identified herein also mention the need for having a policy guiding mechanism through selection of an appropriate public health approach.

Alabama researchers have inferred in a study highlighting the need for concentric loop of testing, care and support, which is in line with the multidimensional preferred analytical tools identified in the present study with policy priorities, impact, feasibility and sustainability of public health efforts are few of the priorities towards strategy evaluation criteria. ¹³

CONCLUSION

'Comprehensive Management cum Monitoring Approach' is the most suited, efficient and accepted approach for implementation of public health project to ensure evidence based action plan. The use of appropriate analytical tools and their justified combination enables public health strategic designs to be methodical, complete and skill based thereby dissociating the chosen approach from the limitations, deficiencies and constraints of avoidable nature in public and private settings of health provider framework. Thus, the intrinsic and extrinsic factors carefully driving the humanity on the road of public health and safety primarily and essentially through preventive interventions need timely address via comprehensive management cum monitoring approach.

Funding: No funding sources Conflict of interest: None declared Ethical approval: Not required

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Cite this article as: Gumashta R. Strategic approach selection for public health through evidenced analytical tools. Int J Community Med Public Health 2017;4:2951-5.