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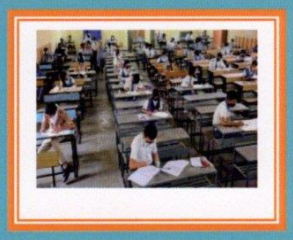

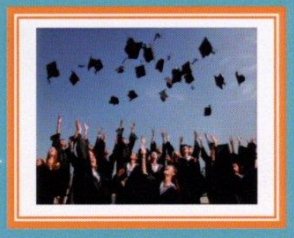

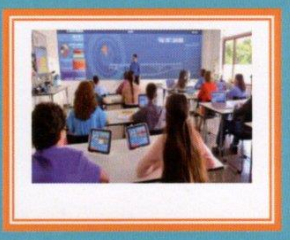

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Grade Analysis and Setting of Prime Wellbeing Services in Solapur District

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Abstract

Health is one of the basic determinants of social well-being and development of human resource. Better health is central to human happiness and well being. It also makes an important contribution to economic progresses as healthy population live longer is more productive. There are hierarchies of public health care facilities i.e. primary health care, hospital care facilities. It provides an integrated health services to the rural population by different health personnel like doctor, nurse and male-female health worker etc. It provides an integrated health services to the rural population.

Sangola and Mangalwedha tahsil have more deficit of PHC this districts have an urgent need of establishment of PHCs. This district will have deficiency of more than 5 PHCs for each tahsil in the year 2041. Health is one of the basic determinants of social well-being and development of human resource. Availability of health care amenities and facility may not be regarded as good indicators of human resource development until and unless their optimum distribution, accessibility and allocation with to threshold population and range of goods.

Fnctional weightage of each facility and proposed of new location of facility has been estimated based on threshold population estimated based on the technique of Reed Muench Method. It also helps to planners, Health scientists and research scholars. Further, this study has shown that there is a need of policy change regarding the new sitting location.

Key Words: *Threshold Population, Social-well-being, Regional imbalance, Human Resource,*

Introduction

Health is an essential input for the development of human resource and the quality of life. Availability of health care amenities and facility may not be regarded as good indicators of human resource development until and unless their optimum distribution. India is developing country. Because of this that is essential to there is need to develop adequate and logically sound conceptual structure of organization of public health care system and delivery system design in the present period because of better health is central to human happiness and well being.

Objectives

The main objective of this study is to evaluate the grade and setting up of prime wellbeing services in Solapur district.

Study Area

Solapur district of state Maharashtra (India) has been taken as the study area. It is situated on the south east fringe of Maharashtra state. It lies between 17^0 10' to 18^0 32' north latitude and 74^0 42' to 76^0 15' east longitude. The district is bounded on the north by Ahmednagar and Osmanabad districts, on the east by Gulbarga districts (Karnataka state), on the south by Sangali and Bijapur (Karnataka state) and on the west by Satara and Pune districts. It comprises about 14895 sq.kms along with eleven tahsil out of which 338.8 sq.km is urban (2.28%) and 14505.8 sq.kms. (97.72%) is rural area. The maximum temperature of the district is 40.1^0 C while minimum is 16.1^0 C respectively. (Socio-economic Abstract of Solapur District 2011-12). The total population of Solapur district is 4317756 (2011) out of total population 68.17 per cent population lives in rural area and 31.83 per cent population lives in urban area.

Database and Methodology

The study was based on the secondary information supplied with primary data collected through field survey. Obtained data have been analysed based on both qualitative and quantitative methods scumulative frequency graphs have been used to visually interpret the distribution based on Mather's model of mean spacingas follow-

$$S = 1.0746\sqrt{A/N}$$

Where,**S**= Mean Spacing, **A** =Area of the given rgion, **N** =Total health centres of the region, and **1.0746** = Spacing constant.

Fnctional weightage of each facility and proposed of new location of facility has been estimated based on threshold population estimated based on the technique of Reed Muench Method.(Hagget, P.and Gunawardena, K.A. (Jully-1964) Determination of population threshold for settlement function by Reed-

Muench Method) Threshold population ofany function is the midpoint of its entry level which is specified by a lower population level at which no settlements has that size have that function. The calculated median population Threshold has been given in Table1.

Adequacy and inadequacy of facilities of facilities have been examined through the analysis of spatio-functional gaps. It is a comparison of accessibility of facilities between the complementary region of service centres and whole study area. The model is thus;

$$R_{ij} = P/P1 \times f1/f$$

where, **Rij** is the relative level of ithfunction, pis population of study area, **P1** is population of complementary region of service centres, **f1** is total functional weightage in complementary region of service centres and **F** denote total functional weightage study area.According to the method, the area with ratio of **more than 1 is** said to adequately served, while area with **less than** 1 is said to be inadequately served by the particular facility.

$$Pn = \frac{Po \times Initial\ Year + ng}{Initial\ Year - ng}$$

For the assessment of projected requirement of healthcare facilities, "the series least square method" is used. It is obtained by using the following formula.

Formula

Where,	**Where,**	$Y = Na + bx$
Pn = projected population	Y = Changing Variables	$XY = ax + bx$
Po = Existing Population	N = Number of Variables'	$Y = a+bx$
n = number of Years	X = Scoring of time series	
g = Decennial rate of growth		

Prime Wellbeing Services

. The primary tier comprises three types of health care institution: Sub-centre (SC), Primary Health Center (PHC) and Community Health Center (CHC/RH). The primary health care infrastructure provides the first level of contact between the population and healthcare providers. This has resulted in substantial amount of duplication of the infrastructure and manpower.

Primary health care services in the public sector in rural areas in Solapur district is provided through a net work of 431 sub-centres, 77 PHCs and 14 rural health centres 2011.

Table No.1

Solapur District: Civic Health Services, 2011

Health Services Level	**I. Primary Health Care services**			**II. Hospital services**		
	Primary Health centres	Primary Health Sub-Centres	Z.P. Dispensaries	Rural Hospital	Sub-District Hospital	District Hospital
India	23887	148124	75783	4809	2709	837
Maharashtra	1816	10580	3442	365	112	29
Solapur	77	431	107	14	04	01

Source: Compiled by Researcher, 2015

Primary Health Centre (PHC)

Primary health centre is the first contact point between village, community and medical officer manned by a medical officer and fourteen other staff, it acts as a referral unit for six curative, preventive, promotive and family welfare services. (Akhtar, R. and Izhar, N. 1986).Here are established and maintained by the state government under the Minimum Needs Programme.

That is necessary to public health care system creating of district cadres for doctors, decentralizing recruitment process to the district levels, contractual appointment, increasing the retirement age of doctors, choice of positioning in urban areas after certain years of services in rural and difficult areas. Other suggestion include both financial and non-financial incentives such as giving priority for the spouse in same area, reservation of seats in idea is to attract doctors to work in rural and difficult areas and make the doctors stay in PHC head quarter.

Table-4: Micro-level Spatio - Functional Gap of Primary Health Centers 2011, 2021

Sr. No	Service Centres	Existing in 2011	Estimated to be exist in 2021
		Primary Health Centres	Primary Health Centres
1	Karkamb	0.89	0.86
2	Ropale	0.68	0.66
3	Tungat	0.73	0.69
4	Puluj	0.83	0.81
5	Khardi	0.66	0.61
6	Kasegaon	0.74	0.77
7	Gadegaon	0.61	0.65
8	Bhalawani	0.88	0.85

Source: Computed by Authers

Note: P=Based on Projected Population

Spaatio-Functional Gaps of Health Facility

For the identification of spatio-functional gaps of Primary health facilities and for the proposal of their new locations to fill the existing gaps Pandharpur tahsil has been taken as the case study area. Complementary region of such service centres has been remarked based on information gathered through field survey all settlement of the tahsil primary health centres in three settlements (palshi, Mundhewadi and Bhose) these four settlement located with medical facility are considered as service centres where people from surrounding settlements commute to avail this facility and from people to go to avian the aforementioned health care facilities ,dependent population of each eight service centres have been estimated based on which spatio-functional gaps have been identified.

Status of Primary Health Centers, 2011

After the overall study of the existing spatial distributional pattern of health centres and their proportion to the dependent villages, their health centres service areas, the large number of villages, and the population served, it is felt that, the potentiality of certain villages may be upgraded as health centres. It is also essential from the viewpoint of overall devel0pment and the planning of the study area. By considering all this things, with a though to improve the health centres and dependent village ratio and to fill the health centres gap the proposing the new health centres on favorable site are attempt here.

In addition to the existing health centres, 19 villages are proposed as sites for new primary health centres in the year 2011. The sites of proposed health centres have been determined on the basis of following important criteria's, **(i) population size (ii) centrality (iii) easy accessibility (iv) transport facilities and distance from the existing health centres, and the urban centres (v) hinterland (vi) site suitability** etc.

It clearly shows the existing health centres, proposed health centres and the dependent villages. Thus the spatial re-organization of health centres will efficiency increase.

It is exhibited from the table-5that functional ratio of only PHC is less than 1 refers to inadequacy of functions in 2011. Which functional gap is estimated to be widening with the growth of population till 2021..The present planning model for order to save the inhabitants from common health problems. Increasing widening gap and problems arising in health centres are always threat to human resource.The common cause of the low level of the choice of PHCs for health care treatment are(Nimase A. G.& Dr.T.N. Lokhande.Aug-2013) conclude the lack of knowledge among the beneficiary families about PHCs, lack of funds at PHCs provide efficient service and the repeated absences of doctors.This planning model can be implemented without disturbing the present administrative boundary.It is essential to maintain quality of services and reducing gap between primary health centres.

Planning For Primary Health CentreS (PHCs)

The table no.5 projected population up to the year 2041 and table no .6 shows the projected estimated PHC and required PHC as per projected population up to the same time. The difference between these two projections is the status of facility in the study region.

There is no tahsil having the facility as per the norms except North Solapur and Akkalkot tahsil. The table no.6 show the estimation of facility required in rural areas and it also shows the status of facility available in the study region.Sangola and Mangalwedha tahsil have more deficit of PHC this districts have an urgent need of establishment of PHC. This district will have deficiency of more than 5 PHC for each tahsil in the year 2041.

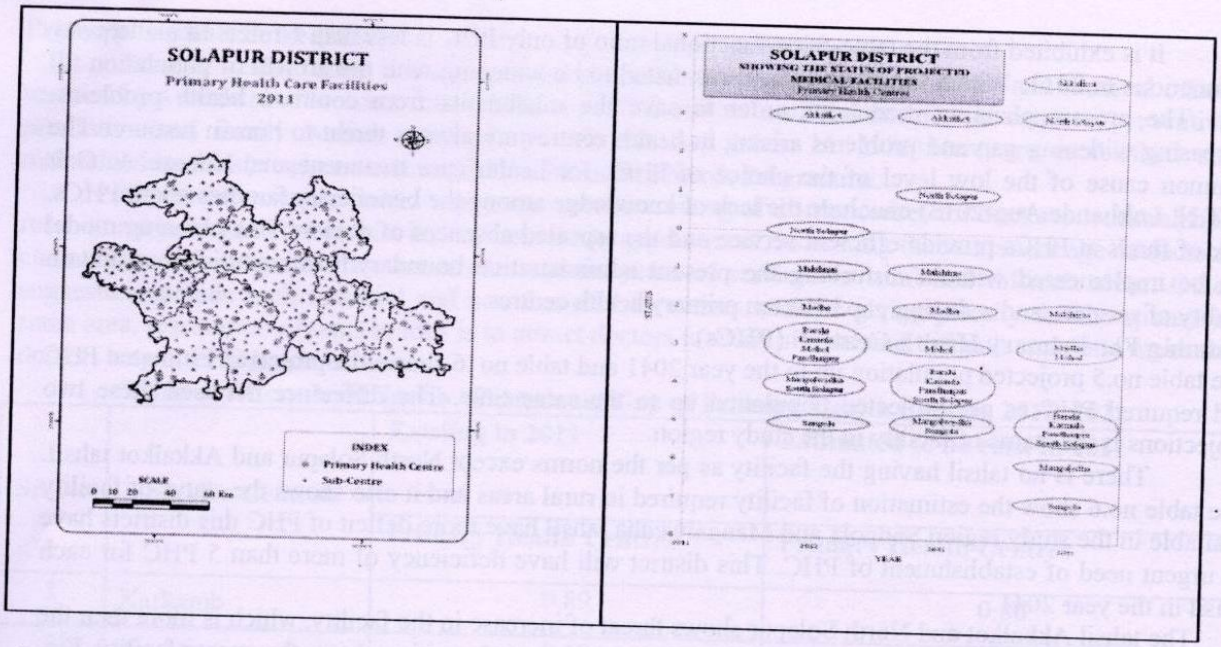
The tahsil Akkalkot and North Solapur shows threat of increase in the facility, which is more than the population. So, the existing population is deficient but the projected position shows the excess facility. Fig. no 8.2 depicts the probable addition of PHCS in the rural areas in the district. It shows that all districts are indefinite in the year 2021 and the condition will remain constant in the future except Akkalkot tahsil. All other tahsil is far depicting. So allotting new PHCs, more attention should be given this tahsils. North Solapur tahsil only one tahsil in the year 2021 there is no required single PHC.

Table 5

Solapur District: Location of the Proposed Primary Health Centre Facilities,

Tahsil	Sr.No of proposed Facilities	Name of the Proposed New Sites	Location code (Village No)	Total no of proposed Facilities-2011
Akkalkot	-	00		Nil
Barshi	-	00		Nil
Karmala	1	Ghargaon	561815	
	2	Khadaki	561811	
	3	Parewadi	561778	03
Madha	1	Papnas	561912	
	2	Tulshi	561957	02
Malshiras	1	Dhanore	562494	
	2	Neware	562479	02
Mangalwedha	1	Gharniki	562619	01
Mohol	1	Kurul	562264	
	2	Bitale	562233	02
N.Solapur	Nil	00		Nil
Pandharpur	1	Bhose	562315	
	2	Mundhewadi	562366	
	3	Palshi	562339	03
Sangola	1	Bamani	562543	
	2	Hatid	562596	
	3	Nazare	562563	03
S.Solapur	1	Achegaon	562727	
	2	Rampur	562720	
	3	Gunjegaon	562769	03
Total Number of Proposed Facilities				**19**

Source: Computed by Author, 2019



Remark

More ever with passage of time due to growth of population existingSpatio-functional gap estimated to be widening in 2021 might a threat on social-well-being.Viewing the existing and estimated to be exist the problem of Spatio-functional gap leading to wide regional imbalances and inequalities of human resource development,based on the criteria of threshold population,accessibility and connectivity, a micro-level locational planning model for 2021has been proposed for Pandharpur tahsil Gursale, Mundhewadi and Bhose have no medical facilities in 2011,but with its projected population have been identified to sustain three types of health care facilities.i.e. PHSC, PHC, Dispensary etc and they become higher order service centre to provide health care facilitiesto mass of population of its surrounding settlements.

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The threshold population for PHC is 30000 in plain area and 20000 in hilly, backward and tribal area. There is no tahsil having the facility as per the norms except North Solapur and Akkalkot tahsil. The table no.6 show the estimation of facility required in rural areas and it also shows the status of facility available in the study region. Sangola and Mangalwedha tahsil have more deficit of PHC this districts have an urgent need of establishment of PHC. This district will have deficiency of more than 5 PHC for each tahsil in the year 2041.

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