

## GLOBAL JOURNAL OF MEDICINE AND PUBLIC HEALTH

# Key challenges of human resources for health in India

Priya Sinha \*1, Sigamani P2

## **ABSTRACT**

## **Background and Objective**

Since independence the efforts have been to strengthen the health infrastructure, its accessibility and coverage. The human resources for health have been an important determinant for system but it has received significance recently. Even government expenditure on health has remained at not more than 1% of Gross Domestic Product which is very less as compared to world standard. Now the biggest challenge is the shortage of skilled human resource for health at all levels in the healthcare delivery system. The article aimed at understanding the current status of human resources for health and initiatives adopted to deal with existing shortage and to highlight factors leading to further shortage and to bring to notice the use of talent management strategy as a retention tool.

## **Review Methodology**

The review used descriptive research design using secondary sources from journals-articles using key words. The study also used exclusion and inclusion criteria to select the articles. The study was done using extensive review of literature on health sector, health workforce, its availability and scarcity due to attrition/emigration in India. The critical review helped in setting objective for the study.

# Findings

The review of articles provided insight into the current status of health workforce in India. The earlier studies emphasized that gap between demand and supply of human resource for health is mainly due to increasing population and burden of diseases. Studies have now identified other factors leading to further shortage as attrition/emigration of skilled health workforce. Most of the initiatives are mainly directed towards increasing supply of human resources for health to deal with the scarcity and less emphasis to control attrition. Few studies highlighted the use of talent management strategy to deal with the challenges of attrition and emigration that helps in retention and controlling further shortage.

## **Recommendations and Conclusion**

The study provided insight into factors further leading to scarcity of human resources for health as attrition/emigration, which has received attention lately and more needs to be done for initiatives and policies to control attrition/emigration. It highlighted talent management strategy is used as effective retention tool by organizations across the world to deal with attrition/emigration. The study recommends study and analyses use of the talent management practices as effective retention tool for human resources for health in

#### GJMEDPH 2016; Vol. 5, issue 4

Doctorral Fellow, Department of Social Work (UGC Centre of Advanced Study), Faculty of Social Sciences, Jamia Millia Islamia (A Central University), New Delhi – Pin Code: 110025, India

Assistant Professor, Department of Social Work, (UGC Centre of Advanced Study), Faculty of Social Sciences, Jamia Millia Islamia (A Central University), New Delhi – Pin Code: 110025, India

#### \*Corresponding Author:

Priya Sinha

Doctoral Fellow, Department of Social Work (UGC Centre of Advanced Study), Faculty of Social Sciences, Jamia Millia Islamia (A Central University), New Delhi – Pin Code: 110025, India

sinha.priya@yahoo.co.in Telephone Number: 09818057682

Conflict of Interest—none

Funding—none



India. This needs comprehensive study of talent management practices useful in controlling attrition/emigration and promoting retention decision of employees.

Keywords: Human Resource for Health, Attrition, Emigration, Talent Management

#### **INTRODUCTION**

Human Resources for Health are most important component of Health system.1 The healthcare industry faces many challenges and the utmost challenge is the shortage of healthcare professionals in rural as well as urban areas. The desired health outcome cannot be achieved without sufficient efficient health workforce and this shortage will lead to decrease in quantity and quality of healthcare services, increased healthcare cost, decline in service coverage to remote areas and accessible only to those who can pay or afford it. The challenge of scarce health workforce received significance recently and expenditure on health human resource has started but issue is government expenditure on health has remained at not more than 1% of Gross Domestic Product which is very less as compared to world standard.2

The purpose of article is firstly to understand the current status and initiatives adopted to deal with existing shortage of human resource for health, secondly to highlight factors that are leading to further shortage by increasing attrition or emigration and lastly to review aims to bring to notice the use of talent management as a strategy that will help to control outflow of trained and efficient health workforce.

#### **REVIEW METHODOLOGY**

Extensive review of literature was done to identify journals-articles on health sector, health workforce, its availability and attrition in rural as well as urban areas. Electronic searches were conducted in Search Database engine like the International Journal of Human Resource Management, Taylor and Francis group, Indian Journal Medical Research, Indian Journal of Medical Sciences, Indian Journal of Public Health, Journal of Family Medicine and Primary Care, BIO Med Central-human resource for health, Springer Science, Journal of Health Management, SAGE Publications, Journal of Medical Education. Websites like Google Scholar, OECD, World Health Statistics, and various websites of ministries were also searched

for further information. The search used keywords like healthcare, healthcare sector, health workforce, human resource for health, health professionals, rural health centres, public health, medical college, hospitals, doctors, physicians, attrition, talent management, scarce health workforce, availability of human resource for health, acquisition, training and development of health workforce, work environment, work hours and work load. Only English language was considered for the search of articles.

The review included articles that had studies on physicians' availability, distribution, and training, attrition, emigration and retention in rural or urban areas from both developed and developing countries, and covering doctors, nurses, ANMs and medical colleges, nursing institutions. The review excluded studies on health infrastructure in detail, fund management, working of health centres in rural as well as urban areas, incentives of working in remote inaccessible areas. All titles and abstracts found in the search were screened by the reviewer. The articles were selected based on inclusion and exclusion criteria for the search. All the articles obtained from search database that were not as per inclusion criteria were deemed as not eligible and discarded. The findings of these articles highlighted the link between shortage of health workforce and attrition and emigration, talent management and study presented government retention. The measures in brief and a better understanding of attrition, emigration factors and talent management practices.

#### FINDINGS AND DISCUSSIONS

The Indian healthcare sector consists of both public and private sector. The dominance is of private sector due to increase in private spending on development of healthcare services and facilities as compared to government expenditure.<sup>3</sup> The current total health expenditure is 4% of GDP (Gross Domestic Product) where Government expenditure has been less than 1% of GDP and the major contribution is from private sector which is approximately 3% of GDP.<sup>2</sup>



## **Key Challenges**

The review of articles on healthcare scenario in India brings to focus the current healthcare system and available resources. It highlights the challenges faced by the healthcare industry of burden of diseases, scarce health human resources and increasing attrition/emigration. The review brought to light that consequence of failure to retain human resource for health may lead to higher healthcare cost and further increase in out of pocket expenditure, increased time of service delivery, decrease in quality and coverage of service, increase in hiring and training cost and decrease in motivation to live in the organization.

## **Burden of Diseases**

India is undergoing demographic and health transition. Life expectancy has increased (currently it is 65 years) and also the diseases of aging and lifestyle. 38% of deaths are due to communicable diseases, maternal, pre-natal and nutritional disorders and non-communicable diseases account for 42% of all deaths. Injuries and ill-defined causes constitute 10 per cent of deaths each. Out of top 10 causes of death, Ischaemic heart disease was the leading cause of death, killing 1215.4 thousand people in 2012. The healthcare sector has to deal with challenges of funding, infrastructure and the most critical is the availability of skilled manpower.

### **Human Resources for Health**

In India the health workforce serving is meager in number as compared to developed nations and the available data on physicians' density in India per 1000 of population is 0.702 only. The availability of doctor is in the ratio 1:1500 in urban areas and one doctor for 2500 people in rural areas which is quite low as compared to USA where they have 1 doctor for 250 people.<sup>6</sup> A recent data on female physicians also brings to notice that only 17% of doctors in India are female and out of these only 6% female doctors are serving in rural areas which mean only 2 female doctors available for 10,000 female patients. The male-female composition of health workforce is just reverse in the case of Nurses and ANMs i.e. female are more in number as compared to male. The density of Nurses in India is 1.3 per 1000 of population where the OECD average is 9.1 per 1000 of population. The density of Physicians, Nurses and ANMs (Auxiliary Nurse Midwives) was 13.4 in 2005 as against the benchmark of 25.4 workers per 10,000 of population. If we consider NSSO (National Sample Survey Organization) data<sup>7</sup>, on unqualified Physicians (Self-reported as doctors in Census of India but was found with incomplete formal medical education and training in NSSO) then this number of density will fall to 1/4<sup>th</sup> of the benchmark. The total healthcare workforce consists of allopathic doctors (31%), nurses and midwives (30%), pharmacists (11%), practitioners of ayurveda, yoga and naturopathy, unani, siddha, and homoeopathy (9%) and others (9%).8

Table 1 Manpower Requirement in Rural Primary Healthcare Institutions in India

Table 1 Manpower Requirement in Rotal Filmary Fleatureare institutions in India				
Category of Manpower	Requirement for Census 1991	In Position (30 June 2000)	Number Sanctioned	Posts Needed (Gap)
Specialists at CHCs	22348	3741	6579	18607
Doctors at PHCs	22349	25506	29702	3157*
Health Educators	22349	5508	6534	16841
Pharmacists	27936	21077	22871	6859
Lab Assistants	27936	12709	15865	15227
X-ray Technicians	5587	1768	2137	3819
Nurses/ Midwife	61548	17673	22672	43785
Health Assistants- Male	22349	22265	26427	84
Health Assistants- Female	22349	19426	22479	2923
Health Workers- Male	134108	73327	87504	60781
Health Workers- Female	156457	134086	144012	22371

Source: Developed from GOI: 2008.9

<sup>\*</sup>indicates surplus and has not been added to Gap



The table indicates the gap in demand and supply of manpower at all levels in the rural health facilities. The manpower data of private health practitioners working in hospitals, dispensaries, clinics in both rural and urban areas are not recorded properly so difficult to arrive at exact figures. Dut the higher cost of health services and high demand for health manpower in urban areas highlight the gap.

The initiatives have been undertaken but mainly to increase the supply of human resources for health in the organization and less emphasis on action plans to control exit of well trained and qualified doctors from the organization in the way of attrition (leaving one organization for other organizations within the same nation) or emigration (accepting opportunities to work in other nations). It is widely accepted that losing a trained, well-educated and experienced employee causes more harm and cannot make for this loss by hiring a new candidate.

#### Attrition

The exit of human resource for health from the organizations takes place in the form of attrition and emigration. Attrition is the gradual reduction in the number of employees in the organisation through

retirement, death or resignation. It is also termed as employee turnover. The matter of concern is when the employee leaves the organisation voluntarily<sup>11</sup> for other reasons than completion of his tenure. The decision to attrite may be influenced by reasons like dissatisfaction from the existing infrastructure, policies, culture, environment, growth opportunity and socio-economic factors. High rate of attrition in hospital staff members have become the toughest concern of hospital administrators and human resource department heads as it influences organisational efficiency.12 The review highlighted the main factors that influence the decision of an employee to leave organization or country are personal, organizational and job oriented that includes career aspiration, socio-economic status, organizational policies, work environment, growth opportunities, role clarity, autonomy, compensation and recognition.<sup>13</sup> The studies have found that it is not easy decision<sup>14</sup> to leave the workplace as it disrupts the normal set up. Hence need is to assess the attrition factors or probable reasons of leaving the organization and develop strategic action plans to retain them. Figure 1 displays the main attrition factors as vicious circle.



Fig 1 Attrition Factors



## **Emigration**

The other form of exit of skilled health workforce from the organizations and country is Emigration. Emigration of employees means employees leaving their own country to work in other countries for better prospects. Indian physicians going to Australia,

US and UK forms highest number of immigrant physicians making us biggest exporter of health professionals. Emigration data has been illustrated in Figure 2. As per WHO report, Indian physicians constitute the second largest immigrant physicians in Canada.<sup>1</sup>

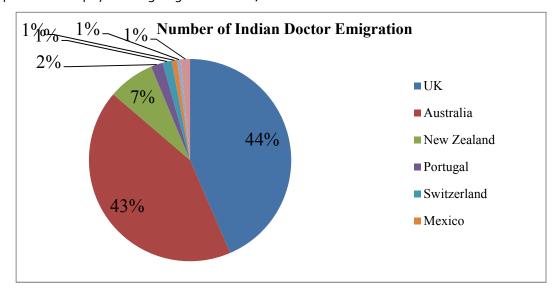


Fig 2 Emigration
Source: DIOC-E database, 2012, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3926986/

S Nandkumar in his book 'What's up Doc', 15 summarises ideology of brain drain. It highlights the perception of greener pasture in the form of attractive pay packages, better training infrastructure, better education system who are

aspiring for higher education, organised and corruption free government system and a sense of achievement influence the decision. The emigration factors have been highlighted in the Figure 3.

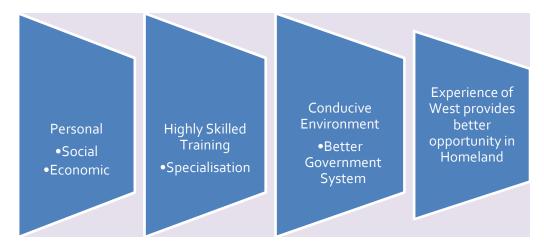


Fig 3 Emigration Factors



## Consequences

There is a need to pay attention towards the emerging issues of healthcare industry as the consequences can be huge. The millennium development goals would be far from achievement. The implications of attrition and emigration will lead to further shortage of qualified healthcare professionals leading to increase in workload, decrease in quality of care and costly healthcare services.<sup>16</sup> The challenge is exit of health workforce which is not limited to emigration but from rural to urban locations, public to private sectors of well qualified and well trained professionals.<sup>17</sup> The lack of suitable organizational policies and retention strategy will have an effect on doctors' motivation leading to poor health service delivery quality. The healthcare service delivery time will increase due to less manpower to attend to patients. The cost of providing health care services will increase leading to less health coverage to all. 10 Already costly secondary and tertiary care will become more inaccessible for the poor. Doctors to population ratio will worsen and less number of doctors will be available for the huge population.10

The consequence of attrition/emigration is increased healthcare cost, high rate of out of pocket expenditure, decrease in quality and coverage of patient care, increase in personnel cost of hiring and training, decrease in motivation and satisfaction of existing workforce. The personnel cost will increase as the hiring and retaining will need more investment. The commitment to increase the health status of its people and achieve millennium development goal for health for all have given way to plans, policies, projects to improve infrastructure and increase availability of human resources for health in rural as well as urban areas. The actions were mainly directed towards increasing supply of trained health workforce at all levels by opening colleges and extensive training.

## Strategic Initiatives by Government

As per National Health Profile 2015, under 12<sup>th</sup> Plan approved outlay of Rs. 3265 crores was allocated for Human Resource for Health in which Rs. 2000 crores is for strengthening of Nursing services, Rs. 65 crores for up gradation of pharmacy colleges, Rs. 1200

crores for creation and strengthening of Paramedical Institutions. Rs. 829 crores was allocated for up gradation of medical colleges (P G Seats).6 The review of selected journal articles on human resource for health provided insights into the existing situation healthcare sector. The healthcare organizations have analyzed closely that keeping sufficient number of efficient manpower will help to achieve the health targets of the nation and will ensure sustainability of the healthcare organizations. The numbers on availability and shortage of trained human resource for health have put government and organizations in action. Government is putting efforts to increase the supply of health workforce under various policies, plans and programs like education and training initiatives with the main focus on rural health scenario. India has approximately 270 medical colleges and 28158 doctors graduate every year. 18 271 teaching institutions for ANMs, 1312 offered degree in the general nurse midwifery, 580 offered bachelor's degree in nursing, and Master's degrees in nursing offered by only 77 institutions in 2006.19

NRHM (National Rural Health Mission)<sup>20</sup> recognizes that well trained and motivated HRH can help in achieving the health outcomes. Under NRHM key areas for action have been identified to meet the objectives of coverage, motivation and competence. The key areas identified for action are adequate number, required skill mix, suitable remuneration, work environment, skills training, leadership, entrepreneurship and support system. Government emphasized on opening of medical colleges, hiring, training and development of AYUSH practitioners in allopathic medicine to serve in Primary Health centers as front line care provider in rural areas. Review of article on rapidly growing healthcare organizations<sup>21</sup> brought to light practices like hiring of graduates and providing them in-house training to develop them as nurses and support staff.

The initiatives mentioned above works with the aim of providing minimum healthcare services to all so emphasize on availability of sufficient manpower but the action plans are limited to control exit which is motivating to stay is limited to few financial schemes<sup>22</sup> that are poorly implemented. The need is

#### Reviews



to tap the factors of attrition/emigration and frame strategic action plan in form of talent management to overcome the difficulty of further shortage of health manpower due to increased exit from organizations or nation (attrition/emigration).

# Talent Management as a strategy

The first approach to solve HRH scarcity issue has seen action in the form of policies and practices to increase the supply of health workforce to decrease the gap between demand and supply of HRH. Now the need is to give impetus to second approach which emphasize on controlling the outflow of trained health workforce from rural to urban areas, from public to private sector and migrating to other nations. Researchers highlight the need to understand the reasons behind increased outflow/exit of employees by giving impetus to attrition, emigration and retention factors in healthcare organizations. They identified the factors of attrition and emigration and suggested implementation of suitable talent management<sup>23</sup> practices as retention strategy to solve the problem of increased outflow of the employees.

Talent Management performs the same functions as that of human resource management but does it faster and ensures right person is in the right job at the right time. <sup>24</sup> Talent management has its roots in the behavioural school of thought in strategic human resource management and falls in the staffing domain. <sup>25</sup> The talent management practices include activities like recruitment, selection, training and development, compensation administration and performance management. The organizations need staffing efforts to focus its efforts towards talent attraction and retention at enterprise level. <sup>26</sup>

Sustainability and competitive strategy assess the market opportunities; identify talent as per the market analysis. In talent pool strategy<sup>27</sup> they design and implement policies that assess the knowledge, skill and attitude of employees which helps in identification of talent. This data is used to design performance management system for appraising the employee. They conduct compensation surveys to design the attractive and competitive compensation. A study provided insights into how the talent pool is

being adapted and shaped by the recruitment strategies of hospitals to obtain a competitive advantage, such as establishing their own schools, developing extensive training programs identifying alternate sources of recruitment as part of talent management initiatives.<sup>27</sup> It is important to evaluate the existing talent management processes from time to time and mould them according to the changes in business environment. With increased career alternatives, poor retention strategies and increased emigration/attrition there is a need to go beyond the currently practicing boundaries of human management in Indian organizations and adopt talent management strategy along with organization strategy to obtain benefits.<sup>28</sup>

The studies brought to light that retention policy should be given due importance and status of core policy and considered as an investment rather than cost. They recommended implementation of Talent Management Strategy as the most effective tool to retain employees. The talent management practices may help to acquire, engage, motivate, satisfy and retain health workforce<sup>29</sup> as illustrated in Figure 4. Studies have put emphasis on development of specific education and training programs and implementation of talent management strategy to acquire, develop and retain HRH. Skill enhancement training and development would pave the path of growth, use of both financial and non-financial incentives<sup>30</sup> and ample infrastructure facilities, healthy work culture and environment will help to satisfy workforce and promote their retention.

The other form of exit of skilled health workforce The Indian healthcare sector consists of both public and private sector. The dominance is of private sector due to increase in private spending on development of healthcare services and facilities as compared to government expenditure. As per OECD Health Statistics 2015, current total health expenditure is 4% of GDP (Gross Domestic Product) where Government expenditure has been less than 1% of GDP and the major contribution is from private sector which is approximately 3% of GDP (National Health Account 2004-05).



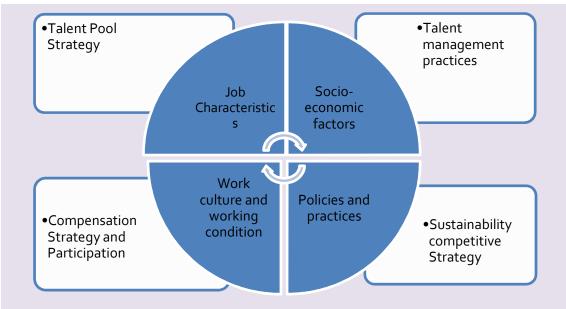


Fig 4 Talent Management – Strategy and Practices

## **RECOMMENDATIONS**

The studies have provided the insights on the issues and highlighted the recommendations that may help in developing and maintaining sufficient health workforce. The initiatives have been undertaken by Government by opening of more medical colleges, promotion of AYUSH industry, emphasis on training of Support Staff to form the front line care provider under various plans like NRHM, NHM and 12<sup>th</sup> Five Year Plan. It was suggested in few studies to develop human resource for Health Research, Recruitment of Retired Professionals, Skill enhancement training, collaboration of Healthcare with University for specific courses designed to cater specific need of workforce requirement like nurses, paramedical, health insurance staff.21 There is a need to develop professionals more at primary service delivery level to provide minimum healthcare to all at reasonable cost.

Talent management practices may be incorporated by organisations as strategic plan to control attrition and retain talent and try to reverse migration.<sup>31</sup> The need is to put emphasis on training, career planning, education, development and work life balance. Surveys<sup>32</sup> at regular intervals may help in analysing the level of satisfaction of the employees from the organisation policies and practices and redesign if necessary. Building an image of employee friendly

organisation may help in attracting and retaining them. Emphasis on infrastructure development and a mix of financial and non-financial incentive schemes may be incorporated. Increase in investment in healthcare is needed to improve conditions of work, environment, culture and climate.

## SCOPE FOR FUTURE RESEARCH

Studies provide ample information on rural health scenario and government employed doctors, nurses and ANMs but less account is available on urban health issues and data on Health workforce employed and working conditions in the private sector. The different Government Health Programs have tried to cater to the problem by increasing the supply of human resource for health through various health programs, opening of colleges, etc. But there is a need for concrete policy for controlling the exit of employees. A better understanding and identification of real attributes of attrition/emigration is needed and use of talent management strategy as a successful tool to attract, acquires, develop and retain the human resource for health.

### CONCLUSION

Emerging economy & growing population cannot deal with scarcity of health workforce. Continuous assessment of the gap in demand and supply is required. Government have taken initiatives to increase the supply of human resource for health with

#### Reviews



emphasis on hiring and training to develop health workforce aimed at providing minimum health coverage to all. The need is to plan to increase supply of Human resource for Health along with concrete policy<sup>33</sup> to control attrition and emigration as hiring new employees cannot fill the vacuum in similar way as trained and culturally adapted employees. In depth study is required to understand and identify Talent management strategies as most effective tool for acquisition and controlling attrition/emigration in both rural as well as urban areas.

#### **REFERENCES**

- WHO. World Health Report 2006: Working Together for Health. 2006; WHO: Geneva. http://www.who.int/whr/2006/whro6\_en.pdf
- National Health Accounts 2004-05. Ministry of Health and Family Welfare, GOI, New Delhi, September 2009. Available at: http://planningcommission.nic.in/reports/genrep/hea lth/National\_Health\_Account\_04\_05.pdf
- Baru, R.V. (2008), Privatisation of Healthcare in India: A Comparative Analysis of Orissa, Karnataka and Maharashtra States, Centre for Multi-Disciplinary Development Research, Karnataka, India.
- 4. Annual Report to the people on Health, 2011. Ministry of Health and Family Welfare, available at:http://www.mohfw.nic.in/showfile.php?lid=121
- Country statistics and global health estimates by WHO and UN partners, Global Health Observatory, updated January 2015, accessed at: http://who.int/gho/mortality\_burden\_disease/en/
- 6. National Health Profile 2015, Ministry of Health and Family Affair, Central Bureau of Health Intelligence, Government of India, New Delhi, available at : www.cbhidghs.nic.in
- National Sample Survey Organisation. Employment and unemployment situation in India 2004–5, Part I, NSS 61st Round (July 2004–June 2005). New Delhi: Ministry of Statistics and Programme Implementation, Government of India, 2006.
- 8. Mukherji, A., Swaminathan, H. The Role of Right to Health in healthcare Management and Delivery in India: In Conversation With Dr Devi Prasad Shetty, Chairman, Narayana Hrudayalaya,2013. IIMB Management Review, 25, 28–35.

- Government of India.2008, "Eleventh Five Year Plan 2007-12', Vol-I Inclusive Growth", Planning Commission', GOI, New Delhi
- 10. Mohan, Rao. (2011). Human resources for health in India. India: Towards Universal Health Coverage, 7
- 11. Abelson, M.A. 1987. Examination of avoidable and unavoidable turnover. Journal of Applied Psychology, 72 (3): 382-386.
- 12. Alexander, J., Bloom, J., & Nuchols, B. 1994. Nursing turnover and hospital efficiency: an organization-level analysis. Industrial Relations, 33, 505-520.
- 13. Mobley, W. H. (1982). Employee Turnover: Causes, Consequences, and Control. Addison-Wesley Publishing, Philippines
- 14. Boswell, W.R., Boudreau, J.W., &Tichy, J., (2005), "The relationship between employee job change and job satisfaction: The honey moon-hangover effect," Journal of Applied Psychology, Vol.47, pp.275-301.
- 15. S.Nandkumar .What's Up Doc? (New Delhi: Parity Paperbacks, 2004)
- 16. Troy P, Wyness L, McAuliffe E: Nurses' experiences of recruitment and migration from developing countries: a phenomenological approach. Human Resources for Health. 2007, 5 (1): 1510.1186/14784491515.
- 17. Chikanda A: Nurse migration from Zimbabwe: analysis of recent trends and impacts. Nursing Inquiry. 2005, 12 (3): 162174.10.1111/j.14401800.2005.00273.x.
- 18. Medical Council of India, Annual report 2007–08,: http://www.mciindia.org/pdf/Annual%20Report.pdf
- 19. TNAI. Trained Nurse Association of India, 2006. Nursing in India. New Delhi, accessed at: http://www.tnaionline.org/
- 20. National Rural Health Mission in the eleventh Five Year Plan (2007-2012), National Health Systems Resource Centre, accessed at http://nhsrcindia.org/
- 21. Srinivasan V, Chandwani R. HRM innovations in rapid growth contexts: the healthcare sector in India, 2014. The International Journal of Human Resource Management, 25:10, 1505-1525, DOI: 10.1080/09585192.2013.870308
- 22. Rao K, Bhatnagar A, Berman P. India's health workforce: size, composition and distribution. In: La Forgia J, Rao K, eds. India Health Beat. New Delhi: World Bank, New Delhi and Public Health Foundation of India, 2009.

#### Reviews



- 23. Lawler, III, E. E. (2005, Summer). From human resource management to organizational effectiveness. Human Resource Management, 44, 2, 165-169.
- 24. Jackson, S. E., Schuler, R. S. Human resource planning: Challenges for industrial/organizational psychologists,1990. American Psychologist,45(2), 223–239.
- 25. Bhatnagar, J. 2009. Talent management strategies in India. In P.S. Budhwar& J. Bhatnagar, (Eds.) The changing face of people management in India (pp. 180-206).[231] New York: Routledge.
- 26. Olsen, R. (2000). Harnessing the internet with human capital management. Workspan, 43(11), p.24–27
- 27. Agrawal, N.M., Khatri, N., and Srinivasan, R. (2012), 'Managing Growth: Human Resource.Management Challenges Facing the Indian Software Industry,' Journal of World Business, 47,159–166.
- 28. Nancy R. Lockwood et al.Talent Management: Driver for Organizational Success. HR Focus 80, 1–4 Society for Human Resource Management, 2006, from http://www.shrm.org/Research/Articles/Articles/Documents/0606RQuartpdf
- 29. Fegley, S. 2006.Talent management survey report. SHRM Research.
- 30. Wibulpolprasert S, Pengpaibon P: Integrated strategies to tackle the inequitable distribution of doctors in Thailand: four decades of experience. Human Resources for Health. 2003, 1 (12).
- 31. Kuptsch, C., & Pang, E. F. (Eds.) (2006, January). Competing for global talent. Retrieved January 30, 2006, from www.ilo.org
- 32. Salil Seth, Intellectual Capacity Building and Talent Management in the Healthcare Sector via Effective Leadership, ISSN 2278 0211 (Online), International Journal Of Innovative Research & Development www.ijird.com June, 2014 Vol 3 Issue 6.
- 33. Chopra M, Munro S, Lavis J, Vist G, Bennett S: Effects of policy options for human resources for health: an analysis of systematic reviews. The Lancet. 2008,371:668674.10.1016/S01406736(08)603050.