



**INTEGRATED HEALTHY WORKPLACE MODEL - AN
EXPERIENCE FROM INDUSTRIAL SETTINGS IN NORTH INDIA**

**School of Public Health,
Department of Community Medicine,
Post Graduate Institute of Medical and Education Research,
Chandigarh**

**DEVELOPED UNDER GOVERNMENT OF INDIA - WORLD HEALTH
ORGANIZATION COLLABORATIVE PROGRAMME (2008-09)**

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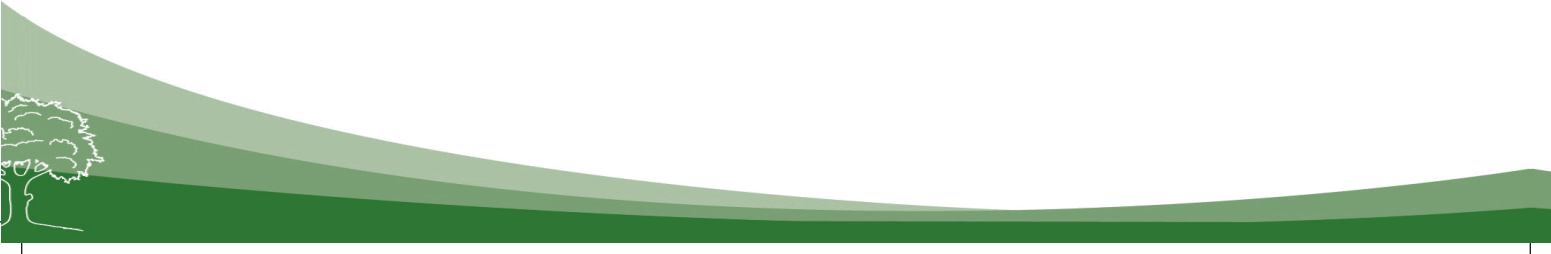
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Contents		Page No.
SECTION 1	Executive Summary	1
SECTION 2	Introduction	3
SECTION 3	Experience from other countries	5
SECTION 4	Aims and Objectives	11
SECTION 5	Methodology	12
SECTION 6	Results and Progress	16
SECTION 7	Discussion in context to NPDCS	29
SECTION 8	Conclusion & Recommendations	30
SECTION 9	References	32
 Annexures		
I.	Brief profile of participating Industries	35
II.	Healthy Workplace Assessment Survey (Comprehensive form)	36
III.	Healthy Workplace Assessment Survey (Rapid form)	43
IV.	NCD worklite for Surveillance	
	A. English	44
	B. Hindi	46
V.	Monitoring and Evaluation	48
VI.	List of experts who Contributed to the Workshop	49



LIST OF ABBREVIATIONS USED

ASSPs	- Application Specific Standard Products
BPO	- Business Process Outsourcing
CDIC	- Canada Deposit Insurance Corporation
CGHS	- Central Government Health Scheme
CHHAP	- Chandigarh Healthy Heart Action Program
CII	- Confederation of Indian Industry
CMOS	- Complementary Metal Oxide Semiconductor
COPD	- Chronic Obstructive Pulmonary Disease
CVDs	- Cardio Vascular Diseases.
DALYs	- Disability Adjusted Life Years
DR-NCDs	- Diet Related Non communicable Diseases
EEPROM	- Electrically Erasable Programmable Read-Only Memory
ESI	- Employees State Insurance
ETS	- Environmental Tobacco Smoke
FICCI	- Federation of Indian Chambers of Commerce and Industry.
GDP	- Gross Domestic Product
GOI	- Government of India
HIV/AIDS	- Human Immuno- deficiency Virus/ Acquired Immuno Deficiency Syndrome
HSE	- Health and Safety Executive
IAOP	- International Association of Outsourcing world Summit
IAPA	- Industrial Accident Prevention Association
IBM	- International Business Machines
ICMR	- Indian Council of Medical Research
IDSP	- Integrated Disease Surveillance Project
ILO	- International Labour Organization
IT	- Information Technology
MoHFW	- Ministry of Health and Family Welfare
NASSCOM	- National Association of Software and Services Companies
NCDs	- Non Communicable Diseases
NPDCS	- National Programme for prevention and control of Diabetes, Cardio Vascular Diseases
OHS	- Occupational Health and Safety
PHDCCI	- Punjab, Haryana, Delhi Chamber of Commerce and Industry
R &D	- Research & Development
RTI/STI	- Reproductive Tract Infection/ Sexually Transmitted Infection
SPSS	- Statistical Packages for Social Sciences
SRS	- Sample Registration System
SWOT	- Strength, Weakness, Opportunities and Threats
UT	- Union Territory
VLSI	- Very Large Scale Integration
WHO	- World Health Organization



PREFACE

A healthy workplace means more than just a safe and healthy physical workspace. Employers must also address the organizational culture and the health practices of employees. This approach will provide an opportunity to resolve basic health problems by creating synergies between occupational health, health protection and promotion, human resources management, sustainable human development, and environmental protection. Timely and strict implementation will help to prevent and control lifestyle related NCDs in industrial settings.

In the last few decades the workplace setting in India too has been evolving dramatically with longer working hours coupled with the changing lifestyle. Work absences are an increasing phenomenon these days due to personal reasons such as illness, disability, or personal and family responsibilities. Stress-related illnesses cost employers in terms of absenteeism, higher insurance claims, low efficiency and low productivity.

At the present stage of India's health transition, chronic disease contributes to an estimated 53% of deaths and 44% of Disability Adjusted Life Years (DALYs) lost. CVDs and diabetes are increasingly prevalent in urban areas. Tobacco related cancers account for a large proportion of all cancers. Socio-economic and demographic factors are hastening the health transition, with sharp escalation of chronic disease burdens expected over the next 20 years.

Tackling sickness absence itself is only one side of the coin, it is far better if the related problem is prevented from occurring in the first place. The risk factors pertaining to the NCDs have to be looked upon if significant improvements in attendance and productivity are to be made. Pursuance of a holistic approach by industries to a healthy workplace that stretches beyond the traditional occupational health and safety would do a lot. Hence the project aims at developing a sustainable Healthy Workplace model keeping in mind the diverse nature of the Indian industries.

I extend my heartiest gratitude to the participating industries for their cooperation in this study and making the same a successful one. I sincerely acknowledge the contribution of Dr Sanjay Wadhwa, Co-Principal Investigator and all co-investigators of the project. I shall be failing in my duty if do not thank Dr Puneet Bains, Project Officer and Ms M Prabha Devi, Research Fellow for wholeheartedly working for this project. I also extend my thanks to the Govt. of India-World Health Organization (WHO) - collaborative programme for providing financial support to take up this prestigious project and supporting this endeavor.

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Executive Summary

Besides a number of occupational disease and hazards prevailing in a workplace, there is an increasing burden of NCDs which is attributed to the lifestyle changes. Several diseases come under the umbrella of Non communicable diseases but more common are CVDs, diabetes, COPD and cancers. A report of the WHO says, unhealthy diets and excessive energy intake, physical inactivity and tobacco use are major risk factors for NCDs. In 2005, an estimated 35 million people died of NCDs such as heart disease, stroke, cancer and diabetes. Around 80% of these deaths occur in low and middle income countries that also have to deal with the burden of infectious diseases, maternal and perinatal conditions and nutritional deficiencies.

In the last few decades the workplace setting in India too has been evolving dramatically but unfortunately there is not an appropriate core model/ template which encompass all the components of a healthy workplace in our own Indian setting. Although few guidelines are available in the industry to follow, there is a need for a concept of ideal workplace. A strategic focus is needed in this arena to develop a core model that fits the unique culture, market conditions and employee characteristics of individual organizations with special emphasis on Indian settings.

Considering the above need for the development of a comprehensive approach to address the burden of workplace related health problems, the study is conducted in order to develop a model for healthy workplaces and to implement a health promotion programme for NCD prevention in industrial settings. Three industries were selected for the purpose in the Chandigarh and adjoining SAS Nagar, Mohali area. Situational analysis of the selected industries was conducted with the main purpose to collect the baseline information, to identify organizational strengths, weakness, opportunities and threats/challenges. This was done using a comprehensive performa of situational analysis which was further pilot tested during the workshop and a rapid form of the same was also developed. An NCD risk factor surveillance questionnaire based on WHO STEPS approach was used initially. However, due to the loss in productivity faced by the industries as the filling of the performa was time consuming, so a modified shorter version 'NCD Work-Lite' for NCD risk factor surveillance has been developed. Common health problems prevailing in the chosen industries were taken into consideration. Besides Diabetes, CVDs, stroke under National Programme for Diabetes, CVDs and Stroke (NPDCS), musculoskeletal problem are also an important morbidity due to bad posture in industrial setting. The focus of health promotion should be on unhealthy diet, physical inactivity, tobacco, alcohol, stress and bad posture. A core model was developed based on the experiences in the participating industries and review of the available models all over the world. The model with key components viz, Psychosocial work environment, Promoting healthy practices and Physical work environment, which may suit the Indian setting, was developed. The same was pilot tested and discussed with the representatives of industry and all key stakeholders



in the workshop. A stepwise approach is proposed for developing healthy workplace keeping in view the availability of resources. The model contains the core, expanded and optional components in which the first type i.e. the core components are mandatory while the later two viz, the expanded and the optional can be implemented as per the industries' needs and resources. A broad framework for implementation was also developed.

Monitoring and evaluation tool was developed and pilot tested. Based on the experiences in participating industries, an integrated healthy workplace model is feasible and can be implemented stepwise in almost all major industrial settings in India.



Introduction

The increasing burden of NCD, particularly in developing countries including India, is about to overwhelm already stretched health services. It is projected by Murray and Lopez that the overall NCDs burden will raise sharply by 2020 in India. About two fifth (40.4 per cent) of deaths were attributable to NCDs in 1990 and it was projected that this will increase to 66 per cent in year 2020¹. The age group involved in India is mainly between 30-69 years, which is a matter of great concern to the society. However the existing health system in the country is focused more on communicable diseases.

Several diseases come under the umbrella of NCDs but more common are CVDs, diabetes, chronic obstructive pulmonary disease and cancers. When closely examined, the NCDs have four common risk factors i.e., tobacco, unhealthy diet, physical inactivity, tobacco and alcohol consumption. Therefore, to address NCDs control, priority should be given to those that have with common risk factors². CVDs, which include hypertension, coronary artery disease and stroke, are the major contributor to the burden of diseases due to NCDs.

World Health Report 2004, stated that CVDs are major contributors to the global burden of chronic diseases with 29.3 per cent of global deaths and 9.9 per cent of total disease burden, in terms of DALYs lost reported in 2003^{3,5}. According to the study conducted by Reddy KS et. al, very high levels of CVD risk factors are found among a relatively younger population from 10 industrial settings across India^{4,17}.

The prevalence of NCD has been found to be high in industrial setting in India as made out by a recent study undertaken by CII. The results show that 37 per cent employees were indulging in smoking, alcohol and tobacco, 63 per cent people in sedentary job feel stressed, 46 per cent respondents reportedly in stress were diabetics, 39 per cent had heart problems and 49 per cent has a history of hypertension¹⁸. Although the data from industrial setting in Chandigarh is not available but time trend in general population shows that age and sex standardized prevalence of hypertension has almost doubled over 30 years increasing from 26.9 per cent in 1968 to 44.9 per cent in 1996-97⁴. A baseline survey was undertaken under CHHAP to find out the NCD risk factors prevalence in Chandigarh and Panchkula by using WHO STEP one approach^{4,5}. With the increase in age, prevalence of smoking was increasing. The highest prevalence of current smoking among males was in 35-44 years age group with 33.6 per cent in Chandigarh as compared to 22.8 per cent in Panchkula. Similar trend was seen for alcohol with 41.2 per cent current alcoholic among males in 45-54 years age group in Chandigarh as compared to 41.2 per cent in Panchkula. Fruits were consumed on all 7 days a week by 32 per cent of the people in Chandigarh and 45 per cent in Panchkula, while 6.2 per cent and 3.3 per cent in each city respectively had no fruits at all. The preference for salty foods was higher in Chandigarh in the younger age



group of 15-24 yrs than in Panchkula (85.9 per cent vs. 58.7 per cent). Similarly fast food preference was also very high in younger age group of Chandigarh (71.9 per cent) as compared to Panchkula (37.3 per cent). This high rate was observed as a possible result of urbanization and food market globalization. More than 90 per cent of the people were involved in sedentary occupation. Moderate exercise for at least 10 minutes a day was done by 24.4 per cent of the people in Chandigarh and 16.3 per cent in Panchkula.

The cause specific mortality due to diseases of circulatory system has almost doubled in last two decades to about 35 per cent in urban Chandigarh. CHHAP being implemented in Chandigarh for the last 3 years has been found to be feasible in health services and school settings. However, workplaces could not be adequately covered to the desired extent because of different settings.

Keeping this background in mind, there is an urgent need to develop NCD prevention interventions for industrial setting for promoting healthy workplaces.



3

SECTION

Experience from other Countries

According to 1991 census, the total Indian working population stood at 314 millions and comprised of 286 million main workers and 28 millions marginal workers. Of the 286 millions main workers, 27 millions were in the organized sector and 259 millions in the unorganized sector. Of the 191 million workers engaged in agriculture, 190 millions (99.2 per cent) were in the unorganized sectors of forestry, fishery and plantation. There is no adequate OHS legislation for workers in this sector⁸.

History of Occupational health and safety in India

Proposals for workmen's Compensation Act were first published by the Government of India in 1921 and met the general support. It came into effect on July 1, 1924. These laws were helpful in compensating work-related injuries and illness for the specified conditions under these Acts⁹. The Royal Commission of Indian Labor recommends setting up an agency for research into industrial health in India under the auspices of the Indian Research Fund Association. It further recommended a Medical Inspectorate for investigating the incidence of disease in miners and instituting preventive measures¹⁰. According to an overview of occupational health and research in India, an estimated of 70-115 millions children under the age of 14 years are a part of Indian workforce¹¹.

OHS Legislation

In India, the most important legal instrument of OHS promotion has been the Factories Act, 1948. This governs health and safety in factories having power of 10 or more workers. In 1987 after the Bhopal industrial disaster, the act was amended and new measures were included in the Factories Act like, preparation for health and safety policy was made essential, Health and Safety committee concept introduced and worker participation was encouraged¹². Key legislations related to health are Factory Act, ESI Act and CGHS which has been amended over a period of time. However, there are problems in their implementation with few exceptions. There are certain diseases which are notifiable like asbestosis, silicosis etc but they are seldom reported because of vested interest.

Health promotion at workplace settings

Thinking and action in the area of workplace health is in transition. The emphasis is shifting from programs designed to change individual's attitudes and behavior, to more



comprehensive interventions that target health risks in the physical, social and psychological work environment¹⁹. This also shifts the emphasis from illness, injury and fatality prevention to health promotion, which the WHO defines as 'the process of enabling individuals and communities to increase control over the determinants of health and thereby improve their health'²⁰. WHO's Regional Guidelines for the Development of Healthy Workplaces defines a healthy workplace as one that aims to create a healthy and safe work environment, ensure that worksite health promotion and occupational health and safety are an integral part of management practices, foster work styles and lifestyles conducive to health, ensure total organizational participation, and extend the positive impacts to the surrounding community and environment²¹. Individual health-related behaviors are the prime target of worksite health promotion, which aims to promote healthy behaviors such as not using tobacco, weight control, a healthy diet, physical activity, seat belt use, adherence to screening guidelines (e.g., mammography screening, blood pressure, cholesterol), substance abuse prevention, case management (e.g., diabetes), as key examples²²⁻²⁴.

The Jakarta Declaration (1997) gave a new direction to health promotion by giving the utmost priority to workplace settings and emphasizing on multi-sectoral cooperation in addressing the NCDs. Out of the different settings suggested, 'workplace' is one of the most important settings affecting the physical, mental, economical, and social wellbeing of the workers and thereby, the health of the families, community and society. It also offers an ideal setting and infrastructure to support national health promotion programs for large audiences²⁵. According to a study in Northern Ireland, workplace health has three components: the effect of work on health; the effect of health on individual's capacity to work; the opportunity for health promotion by the employer through the range of activities that encourage employees to adopt healthier lifestyles. A healthy workplace, therefore, helps in the prevention of work-related disease and injury in addition to promoting positive healthy lifestyle behaviors on the part of the entire workforce and their families²⁶. An annual report of "Health of the Public in Northern Ireland" for 1996 developed this concept of the workplace as an ideal location in which health promotion could take place recognizing that it offers access to large number of people who are part of the wider social community; provides the potential for positive health messages to be enhanced by team influences found within organizations and enables activity to be directed at individuals who may not be reached in other ways; creates the possibility of extended dissemination of a positive healthy lifestyle culture to the family and friends of the employee outside the targeted workplace²⁷. In 1995, HSE household survey on self reported work related illness estimated that 2 million people suffer from some form of work-related illness in the UK, musculoskeletal conditions accounting for just over 1.2 millions and stress in 0.5 millions²⁸. In a article "Health and Productivity Management - a Future Model for Europe" sick leave has become a huge problem, for example, 600 millions working days are lost due to work-related illness in Europe. The reasons are manifold: aging populations, increasing work-related stress and unhealthy behaviors. However, absenteeism just reflects the tip of the iceberg³². Similarly in the Luxembourg Declaration on Workplace Health Promotion



sets a goal for improving the work organization and working environment; promoting active participation and encouraging personal development. The desired results are improved quality of work life and better economic performance³⁰. Globalization and evolving urbanization trends in most developing countries have introduced rapid changes in life styles. Reduced levels of physical activity and modifications in the structure of diet towards increasing intake of saturated fats, animal products and sugar are contributing to a rapid rise of DR-NCDs, such as obesity, certain cancers, coronary heart and cerebrovascular diseases, hypertension and type II diabetes³¹. According to a study in Canada, 70 per cent of the organization's benefit costs fall into six disease categories: cardiovascular, musculoskeletal, respiratory, digestive, cancer and stress³². In British Columbia, indirect productivity costs due to premature death and disability attributable to physical inactivity and obesity costs are conservatively estimated at \$362 million³³ and \$450 million³⁴ respectively each year. Because of the amount of time that workers spend at work, the workplace is to influence a large segment of the population. In Europe, it has been estimated that work-related stress affects at least 40 million workers, costing 20 billion Euros - that's roughly 30 billion Canadian dollars - annually, or 3-4 percent of GDP. 100 million Americans have one of the 4 major chronic diseases, which account for three-quarters of the \$1.7 TRILLION dollars spent in the US on healthcare each year. Three quarters of 1.7 TRILLION dollars, in just one country³⁵.

Policy, practice and research in workplace health have been pursued across the developed world for some considerable time. Experience from western countries have shown that such strategies work to improve dietary and lifestyle habits in populations and reduce not only medical reimbursement bills but also increase employee retention and satisfaction. Some of the countries have initiated successful NCD interventions, which also focuses on workplaces as shown in Table 1. However in India there are no organized NCD interventions in workplace settings to cater to the industry needs.

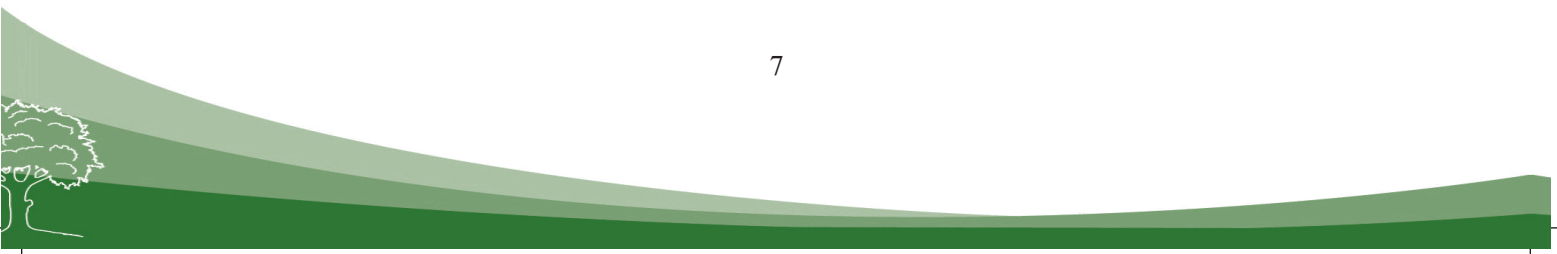


Table 1: Key components of Healthy workplace models in different countries

Year	Healthy Workplace Model	Components	Country
1970's	Health Canada ³⁶	Environment, Personnel Resources, Health Practices	Canada
1990s	National Quality IAPA ³⁷	Physical Environment, Health practices, Personnel Resources and Social environment	Canada
1990's	Ontario Healthy workplace Coalition ³⁸	Physical Environment, Psychosocial Environment , Health Practices	Ontario, Canada
1999	Institute for work and Health ³⁹	Societal Level- Broader environment Workplace level- Organization technology, Practice, Culture Job level – Physical and mental exposure Individual level- Modifiable and non modifiable factors	Toronto Canada
1996	University of Nottingham ⁴⁰	Work technology , Work place , Work and task	UK
2006	IAPA ⁴¹	<u>Health Management elements</u> - Occupation hygiene, medical services ergonomics, wellness, psychosocial risk management <u>Environmental management</u> - Pollution prevention,(air, water , soil, ground water , waste management (hazardous and non hazardous), community involvement <u>Safety Management</u> - Behavior based performance, workplace violence.	Canada

Models for healthy workplace in developed countries

Countries use different terminology to describe a very similar approach. For example, Canada talks about “Workplace Health System” while Australia refers of as “Workplace Health Management”. Countries may describe the ideal workplace setting as “Health-promoting Workplaces” or “Healthy Workplaces” or “Healthy Companies. There are many healthy workplace models available in the world and some of the key models are mentioned in table 2. Most of these models have three key components, although different names have been given. According to Ontario Healthy Workplace coalition, there are three factors which influence the health or wellness of the organization and its employees: Health and Safety (Physical Environment), Cultural/Social Environment (Organizational Culture) and Lifestyle Practices (Voluntary Health Practices) of employees³³.





Figure 1: Three key components of any healthy workplace model.

A recent publication from the University of Nottingham in the United Kingdom (UK) shows another model which shows the inter-relationship of various components of workplace health. (Fig 2)³² The Institute for Work and Health (Toronto, Canada) is exploring these relationships and is experimenting with a model as shown in Fig 3.³³

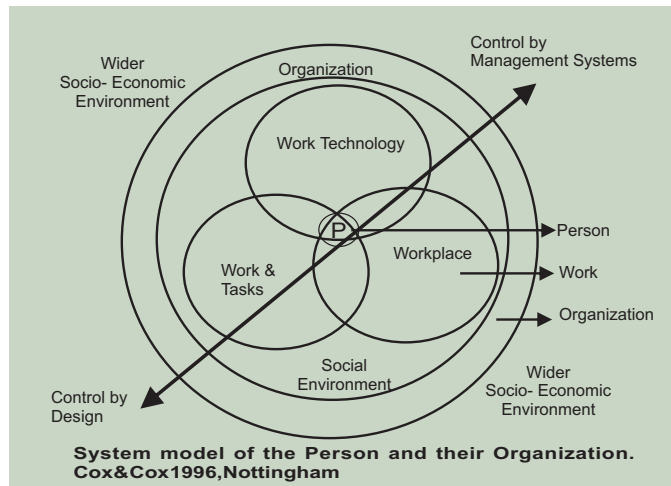
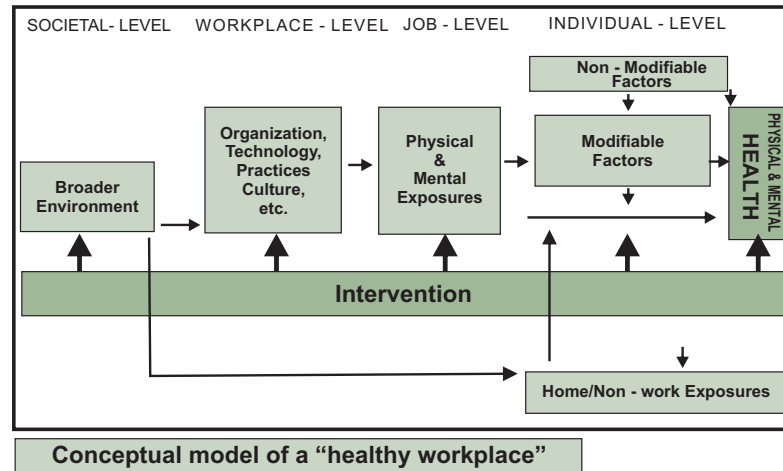


Figure 2: Systems model of the person and their work in their organization.



Adapted from Robson, Shannon, Polanyi, Kerr, Eakln, Brooker, Cole (1999)

Figure 3: Conceptual model of a healthy workplace

Creating frameworks for healthy workplaces offers a unique opportunity to bring the specialties of occupational health and public health together. It will also encourage partnership approach between health and safety professionals, employers, employees and their representatives that involves everyone in the workplace. Through this joint effort comprehensive programme can be created that give equal emphasis to establishing management support for health promotion activities, building a health-supporting work environment, fostering health activities as a viable business strategy, and helping employees identify health risks and behaviors in order to determine ways to change and improve.

India is a developing country with a growing economy at 9-10 per cent GDP and undergoing rapid industrialization, thereby increase in the workforce over a period of time. There are many studies which identifies various risk factors, high morbidity due NCDs and other occupational health problems in industrial settings in India. Lacunae in Indian system arise due to its large unorganized sector which shares a lion's share of the country's productivity. After reviewing healthy workplace model in different countries, it was observed that there was decrease in the number of absentees, decrease in musculoskeletal problems, stress level, tobacco and alcohol intake, cardiovascular diseases, etc. There was increase in productivity due to good health of the employees working in different settings. Increase in physical activity and consumption of healthy diet decreases the NCD Risk factor prevalence. Despite many Industrial legislations and progress on occupational health; we could not encounter any healthy workplace model in India. However, current models available may not be relevant for our country because of its diverse nature, peculiar industry and labour profile. So there is need to develop a healthy workplaces model for large industrial workforce, which is country specific, cost effective and sustainable in Indian settings.

Aims and Objectives

- 4.1** To develop a model for healthy workplaces for NCD prevention in an industrial settings.

- 4.2** To implement a health promotion programme for NCD prevention in industrial settings.



Methodology

5.1 Intervention area:

The study comprised of industries from Union Territory and its surrounding areas. The intervention programme was undertaken in three purposely-selected workplaces of Union Territory Chandigarh or its adjoining towns.

5.2 Study period:

The study period was from June 2008 to May 2009.

5.3 Study design:

This is a cross-sectional study followed by workplace intervention on pilot basis.

5.4 Sampling method: Purposive sampling for selection of industries by using multi stage random sampling for the selection of workers.

5.5 Development of Model for healthy workplace:

Model was developed by reviewing existing model keeping in view Indian working conditions. The model for NCD prevention was based on capacity building, surveillance, health promotion and advocacy. The capacity building of management, ESI hospital staff, medical officers of selected industry, occupational and safety staff and key office bearers of employee's organizations was undertaken. The health promotion focused on lifestyle changes that includes counseling on smoking cessation, regular increased physical activity and healthy diet that will include more fruits, vegetables, fibers, low saturated fat intake, reduction of alcohol consumption and reduction of high salt intake. Advocacy meetings were organized with key stakeholders. National and local committee of industry and employee union was actively engaged. The feasibility of NCD risk factors surveillance was worked out in selected industries by using WHO step wise approach. The flow chart of broad project plan is shown in the figure 4:



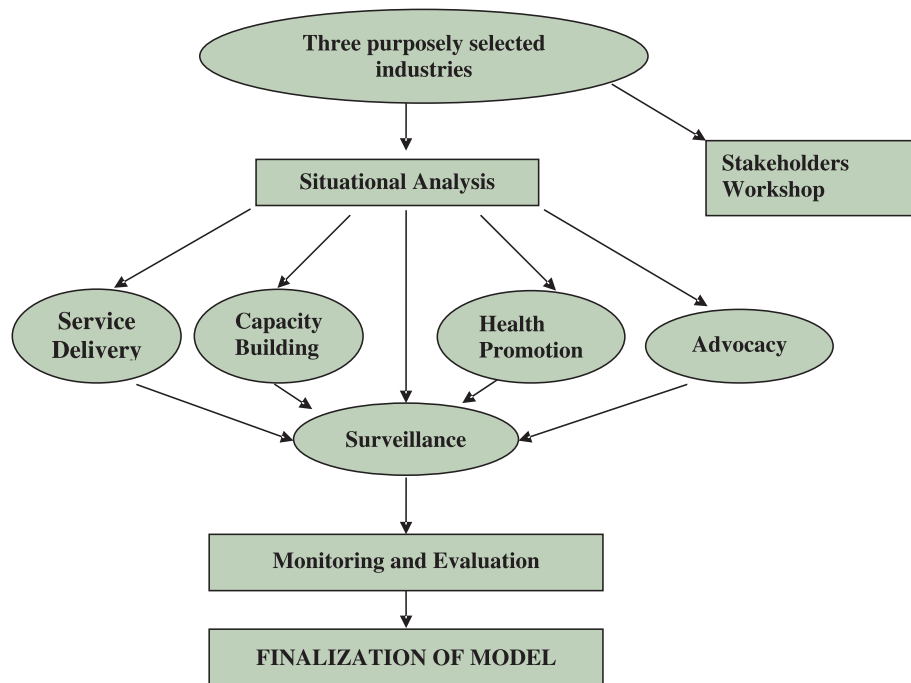


Figure 4: Flow Chart broad project plan

5.6 Strategies

5.6.1 Situational Analysis :

The SWOT analysis classifies the internal aspects of the company as Strengths (S) or Weaknesses (W) and the external situational factors as Opportunities (O) or Threats (T). Strengths can serve as a foundation for building a competitive advantage, and weaknesses may hinder it. By understanding these four aspects of its situation, an industry can better leverage its strengths, correct its weaknesses, capitalize on golden opportunities, and deter potentially devastating threats. A comprehensive healthy workplace assessment survey performance and rapid situation analysis (SWOT) performance was developed.

5.6.2 Capacity building:

Project staff visited all the selected industries and explains the purpose of the project. Regular meetings and activities is being performed in all the selected industries from Union Territory and its surrounding areas. Healthy workplace committee was formed in all industries to work out on policies, programs and action plans.

5.6.3 NCD Surveillance:

WHO's STEPS methodology, provides a framework for the surveillance of risk factors of NCDs and was used for risk factor surveillance.

5.6.4. Health Promotion:

Health promotion sessions were conducted at the workplace and a calendar with periodicity was decided. Physical activities were promoted at the workplace like non-motorized use of transport, walking, cycling, brisk walk and yoga. Healthy workplace committee had developed an annual calendar of activities. Health promotion materials were developed and distributed in all the selected industries.

5.6.5 Service Delivery:

The service provisions for employees already suffering from different diseases were reviewed and strengthened.

5.6.6 Advocacy:

The advocacy meeting with key stakeholders in industry, labor union, industry and health department was organized to work for healthy workplaces.

5.7. Stakeholders Workshop:

A Stakeholders' workshop comprising of participating industries, industry organizations, labour unions, ESI wing of health directorates, representatives from CII, MOHFW, WHO, ICMR, will be held to finalize the model and various tools.

5.8. Implementation:

The programme intervention was implemented through industry, industry organization- CII, PHDCCI, FICCI and labor union etc. Log book of the activities was developed and maintained by the staff or the organization to monitor the implementation. A healthy workplace committee was formed by involving key stakeholders from industry management, health staff and employers. The committee decided broad policies and program for implementation. The stepwise framework developed by WHO for prevention of chronic diseases was adapted keeping in view the local situation. For this purpose, the doctors, pharmacists and nurses working in selected industry were involved. The national guidelines developed for diabetes, COPD and cancer management promoted. For management of cases, health risk assessment and common health problems of the employees were assessed through a questionnaire and accordingly interventions were fine tuned. Health care and



occupational safety staffs were distributing the health promotion materials which were taken from previously made materials and developed by self. Healthy promotion sessions were organized in all the selected industries. Efforts were made to introduce healthy food options in canteen and regular food hygiene monitored. Tobacco free initiative taken by Chandigarh Administration was implemented at workplace like making tobacco free environment. Special theme sessions were organized periodically as per industry requirement. Each participating industry prepared its action plan in consultation with project staff.

5.9 Monitoring and Evaluation:

Monitoring of the implementation of model was done every month by using the pre-designed performa. Initiation of specific programmes by the industry will also be evaluated by doing situational analysis after one year. Level of awareness and extent of participation were assessed for the staff as well as health care staff regarding risk factors.

5.9.1 Monitoring and Evaluation Tool:

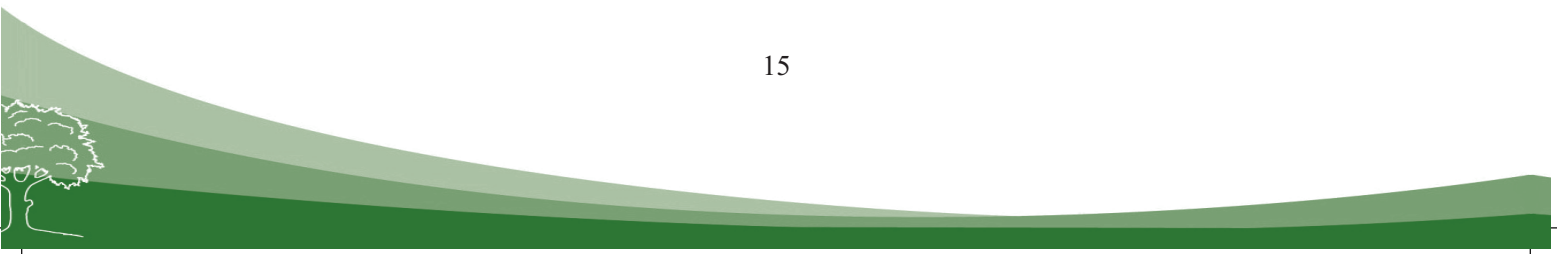
Monitoring and Evaluation tool is a short performa which reflects on what has been accomplished on an ongoing basis through every stage of the implementation of healthy workplace program. It helps in identifying what are the needs of the employee and whether the initiatives taken up are meeting the identified goals and what improvements should be made. The monitoring and evaluation performa used is given in Annexure V. Monitoring of the implementation of model was done every month by using the pre-designed performa. Initiation of specific programmes by the industry will also be evaluated by doing situational analysis after one year. Level of awareness and extent of participation were assessed for the staff as well as health care staff regarding risk factors. Monitoring and evaluation tool was finalized in the stakeholders' workshop.

5.10. Sustainability Issues:

An effort was made to develop an India specific model which is suitable for our country and self sustainable by industry over a period of time.

5.11. Statistical Analysis:

The data was analyzed using EPI info software and SPSS 10.0.



Results and Progress

6.1 Selection of Industries:

Sensitization and selection of the industries was started in the month of May 2008. It was done in various industries including Groz and Beckert, DELL, Tata Indicom, Semi Conductors Private Limited, Tech Mahindra, Sony Erricsson, IBM, CDIC and CDOC. After extensive search, three industries with one in public sector (Electronic industry) and two in private corporate sectors were selected (Manufacturing industry & an IT industry). The identity of the industries was being kept confidential and they were described as type of industry. Brief profile of the chosen industries is given in the Annexure I.

6.2 Situational Analysis of selected industries:

Situational analysis of the selected three industries was done. Its main purpose was to collect the baseline information, to identify organizational strengths, weakness, opportunities and threats/challenges. Some policies were already in existence in all the three chosen industries. Further policies were framed and implemented as per the needs of the health promotion. The Human Resources Manager, filled the SWOT analysis performa in Industry X, the Senior Head, Personnel and General Administration, filled it in Industry Y while in Industry Z, the Senior HR filled it. The three industries have a full time employed Medical Officer/Psychologist who conducts regular check ups for the employees and has helped employees to deal better with work stress & remain emotionally healthy too. Various Eye check-up camps, general health camps for employees are held in their premises. A First Aid Box has been made available in the premises. The Top management in the private sector was very positive and receptive in promoting a healthy workplace while this is less in case of the public sector. Some policies like smoking free environment and no drinking in the premises are already being implemented. However, there was a need to embrace more stringent policies to achieve healthy workplace.



6.3. Development and pilot testing of Study Tools:

Study tools were developed keeping in mind the requirements in all the three industries. Study tools are as follows:

I) Situational Analysis (Comprehensive assessment and Rapid assessment):

Situational analysis performa has been completed in all the three selected industries. Initially a 12 pages situational analysis performa was developed and pilot tested in all the selected industries. Based on the experiences on pilot testing, a rapid performa was also developed and was pilot tested. These performas can be used for comprehensive assessment (Annexure II) depending upon the requirement of the industry. Rapid assessment performa is given in Annexure III .These assessments served as a baseline and were used for evaluation of the progress towards healthy workplace.

ii) NCD- WORKLITE questionnaire:

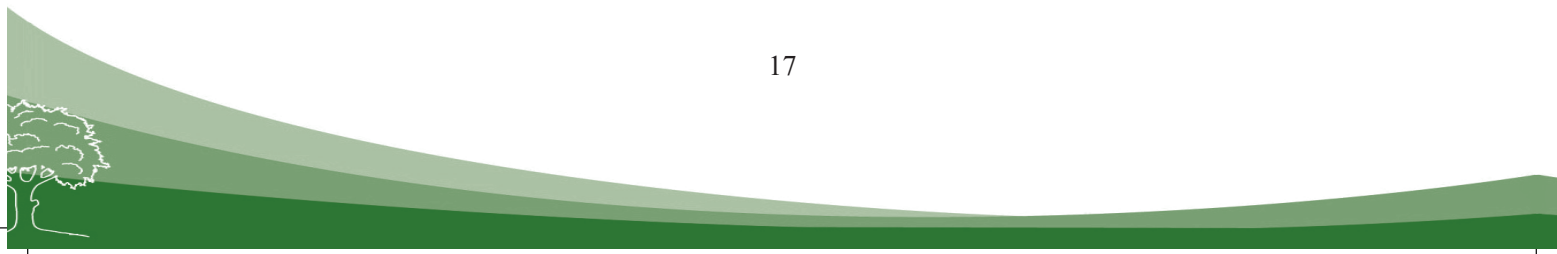
NCD questionnaire was developed and pilot testing was done among 20 employees in School of Public Health, PGIMER colony. After pre-testing, NCD risk factor performa was again pilot tested among 160 employees in a manufacturing industry. There was loss of production faced by the company during that period. Due to this, a modified version for WHO's STEPS performa, 'NCD Work-Lite' was developed. It is a two pages questionnaire having 25 questions, self administered and can be used till step 3. It was found to be feasible keeping in mind the productivity at a workplace setting and loss of interest of the employees while filling the NCD surveillance performa. Both the English and Hindi version is given as Annexure IVA and IVB. The questionnaire was completed by 900 employees in all the three industries.

iii) Monitoring and Evaluation Tool:

This is a short performa which reflect on what has been accomplished on an ongoing basis through every stage of the implementation of healthy workplace program. It helps in identifying what are the needs of the employee and whether the initiatives taken up are meeting the identified goals and what improvements should be made. The monitoring and evaluation performa is given as Annexure V.

6.4 Workshop on healthy workplaces:

A 'Stakeholders workshop on healthy workplace' was conducted. in collaboration with CII & WHO- India with the objective to sensitize the key stakeholders on the



emerging epidemic of non-communicable diseases in industrial settings, development of a sustainable model and action plan for prevention and control of non-communicable diseases (NCDs) at work place, discussion on key tools for implementation of healthy workplace model and capacity building of industries to initiate health promotion program for NCD control in their respective workplaces. It was attended by stakeholders like CEOs and representatives from participating industries, industry organization, labour organizations and faculty from PGIMER. In this multi-stakeholder workshop, tools were finalized and to bring a consensus to the key components of the model in context to the Indian industries. The main areas of discussion were Psychosocial Work Environment, Physical Work Environment and Promoting Healthy Practices in a workplace. The proposed model for healthy workplace developed by PGIMER was extensively discussed and various inputs and suggestions made by the stakeholders were accepted.

Despite the diversity of the participants' background and range of topics discussed, there were several points of general consensus and the expected outcome could be reached. The workshop could successfully sensitize the stakeholders about the booming problem of NCDs. The common view of the stakeholders was the recognition that there is a need for a healthy workplace committee which would bring up certain policies and plans to achieve a healthy workplace in the industry. A comprehensive integrated approach by organizations towards workplace wellness and employee well-being that extends beyond the traditional approach to occupational health and safety is required. Some industries have already begun to strategically address workplace health issue, but many more industries need to reach out. Many were of the opinion that communicable diseases should not be neglected as well. There is a need for a comprehensive integrated approach to a healthy workplace in a sustainable way for which commitment makes the difference and will be more suitable for Indian industry setting.

6.5 Focusing on key NCD risk factors :

After extensive discussion in the workshop and based on experience in the participating industries, it was observed that key NCD risk factors for health promotion in industrial settings should be unhealthy diet, physical inactivity, tobacco, alcohol, stress and posture. Posture is a key risk factor in many industries especially in IT industry and is responsible for high musculoskeletal problems. The risk factor and NCDs to be covered are given in Table 2:



Table 2: Key NCD risk factors and diseases to be covered in the industry.

NCD Risk Factors	Diseases
Unhealthy Diet	Diabetes
Physical inactivity	Cardiovascular disease
Tobacco	Stroke
Alcohol	Chronic Obstructive Pulmonary Diseases
Stress	Cancer
Bad posture	Musculoskeletal diseases

6.6. Model for healthy workplace:

Based on the experience in participating industries and discussions in the workshop, a model for India was developed.

6.6.1 Model

6.6.2 Components:

An ideal Healthy workplace Model consists of the 3 key components viz, Physical Work Environment, Promoting Healthy Practices and the Psychosocial work Environment. One such model was proposed by the project team after reviewing all the available models in the world and with special reference to the work culture in India. The same was discussed with industries and finalized in the workshop for implementation. The model is given in Fig 5. The 3 key components are discussed below in brief:

1. Physical work Environment:

This element focuses at the quality and sustainability of the physical environment. A healthy physical environment is one where employee health and safety are ensured and current health and safety legislation and directives are not only met but exceeded. In promoting a healthy physical environment, some areas of concern like workplace hygiene, safe and cleanness in-facility should be available. Canteen with healthier options of food with proper hygiene should be facilitated. One very common health problem in industry is the bad work posture and injuries related therewith. Proper ergonomic design is necessary to prevent repetitive strain injuries, which can develop over time and lead to long-term disability. Properly designed chairs should be made available as appropriate for the job. A healthy workplace must have a “BARRIER



FREE ENVIRONMENT” where ramps and lifts are available. Awareness sessions on safe ways of performing activities in each job should be made mandatory. Periodic cleansing of filters of AC units ought to be given emphasis so as to avoid inhaling of foul air; indoor air pollution. Noise level in the workplace should be within the desirable range. Proper emergency preparedness and responses should be made available. Mock drills should be conducted. Waste generated from the workplace should be managed and safe disposal should be practiced according to the national guidelines. An external vendor can be contacted in case of need. OHS guidelines should not be ignored but should be strictly followed to reduce the physical and chemical hazards in a work environment with the goal of reducing work-related injury, illness and disability. Participation in fitness activities should be encouraged and fitness club membership vs. on-site fitness sessions/programme should be facilitated. PPE (Personnel Protective Equipment) should be made available to the employees. It shall be used only as a last resort to protect workers from exposure to hazards that cannot be controlled otherwise. Safety guidelines should be facilitated and displayed in the workplace. A crèche should be made available in workplaces where the number of female employees are more to reduce the rate of absenteeism.

2. Promoting Healthy Practices

This component considers how the work environment enables and supports healthy lifestyles, behaviours and coping skills for dealing with life in healthy ways. The key risk factors of NCDs i.e unhealthy diet, physical inactivity, tobacco and alcohol should be focussed. With pressures of the job and few healthy options, good nutrition frequently gets neglected, people often skip meals and continue working until they experience headaches, dizziness or blurred vision. Junk food and other unhealthy choices offer quick energy, but often result in a later energy slump. A proactive approach to supporting employees in making healthy food choices can result in maximum productivity and wellbeing. Promoting physical activity contributes to better overall health and self-esteem, improved fitness, increased relaxation and reduced stress. Workplaces that invest in active living activities can see results such as reduced absenteeism and stress-related illness, and improved employee job satisfaction. Workplace Hygiene is concerned with both health and safety issues. Employees must be enlightened or re-motivated to take an active role in the identification, control and abatement of workplace hazards associated with harmful substances and situations, including sanitation and personal protection from chemicals and biomaterial.



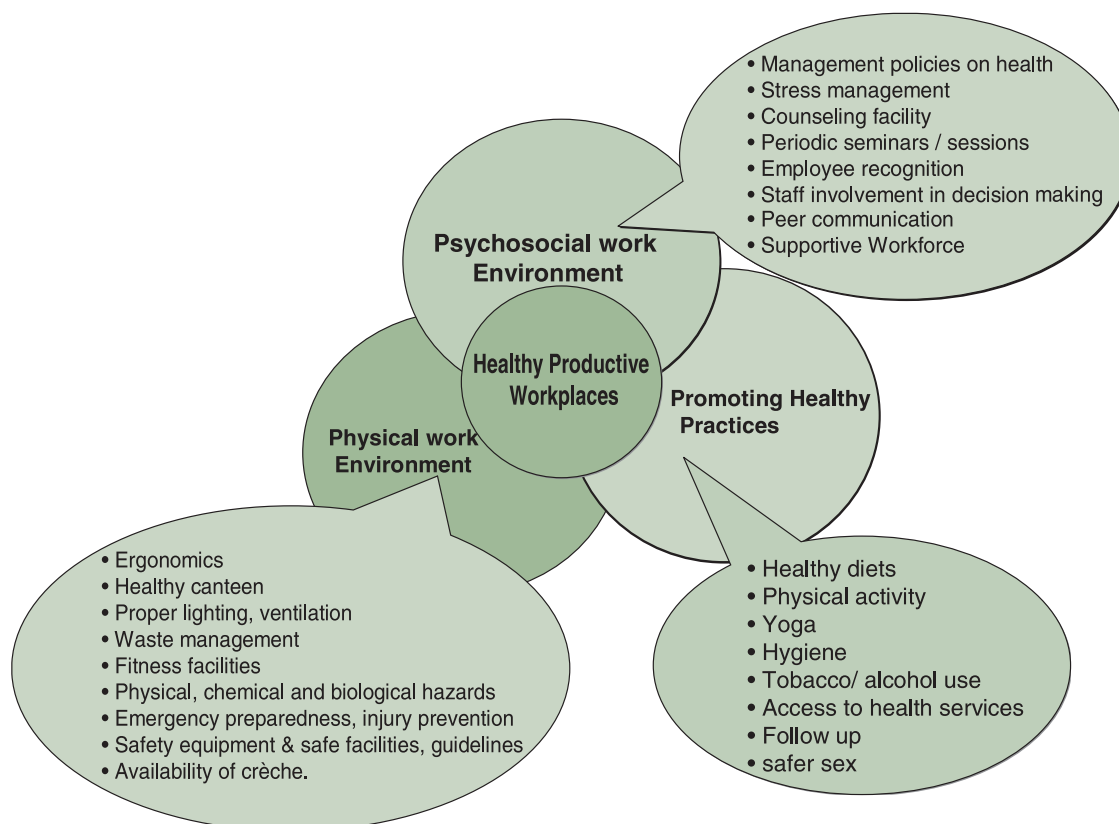
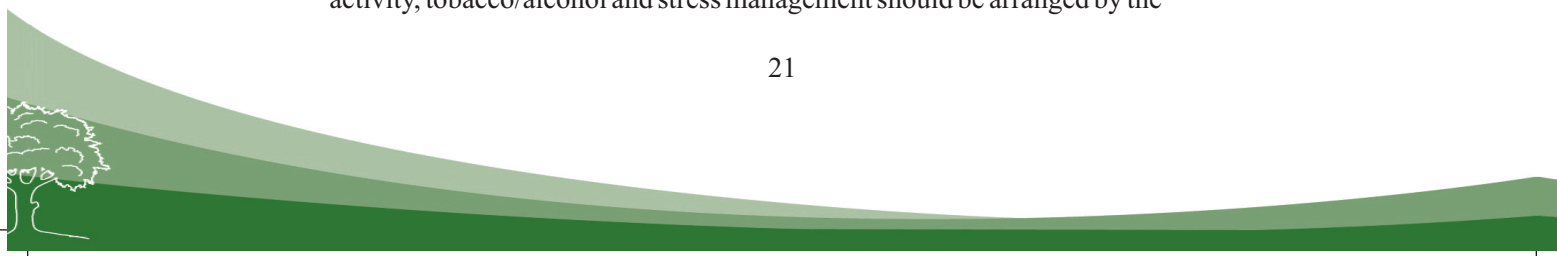


Figure 5: Model for Healthy Workplace in industry setting

Tobacco, alcohol and other drug use can significantly impact employee health, workplace Environment and public safety and operational productivity. Tobacco use is the leading cause of preventable illness and premature death. It significantly increases the risk of developing cardiovascular disease, various cancers and chronic obstructive pulmonary diseases. Environmental Tobacco Smoke, or “second-hand smoke”, is a toxic mixture given off the burning end of a cigarette or exhaled by one who is smoking. More than 50 studies have shown that ETS spreads rapidly through buildings and offices; it stays in the air for a long time and exposes employees to cancer-causing pollutants. Prevention of non communicable disease should go parallel with communicable diseases. The practice of safer sex needs to be encouraged so as to prevent RTI/STI and other dreaded diseases like HIV/AIDS. Health professionals, government and industry must begin to develop more effective workplace health promotion strategies for shift workers that encompass education, policy and environmental support. Shift workers must also cope with the social problems that result from special sessions on NCD risk factors like diets, physical activity, tobacco/alcohol and stress management should be arranged by the



employers. Promotion of yoga and meditation is one of the important aspects of healthy workforce. Access to health services should be facilitated among the employees. Prevention, promotion, cure, rehabilitation are the key aspects in prevention of occupational diseases. Acute care hospital, attached to a hospital or a separate one is mandatory for the medical aid to those employees who are already affected and who are likely to be affected. As a part of the management policy, the company should be free to choose any one of the following options i.e provision of health insurance, empanelment of doctor, counselor, and consultant and reimbursement of medicine, aids and appliances. Regular follow up of the employee should be practiced through proper records.

3. Psychosocial Work Environment

Psychosocial hazards are workplace stressors or work organizational factors that can threaten the mental and physical health of employees. Psychosocial work environment examines organizational culture. Culture is created, reinforced, and sustained by patterns of human relationship and communication that have a significant positive or negative influence on mental, emotional, physical, and spiritual health. When underlying organizational culture is ignored, workplace health programs are more likely to fail (Allen & Leutzinger, 1999). Policies that support wellness as an organizational priority enhance the well-being of the workforce and enable employees to more fully contribute to organizational growth, competitiveness and the bottom line. A policy is more likely to be successful when it is carefully developed and takes into consideration the needs of the employees. Stress at work is a common problem among workers and is relatively new phenomenon of modern lifestyles which goes parallel with the drastic changes in the nature of work, irrespective of the kind of job. Job stress is the result of harmful physical and emotional response that occurs when requirements of the job do not match the capabilities, resources, or needs of the worker. Assessment of organizational stress & systematic approaches to reduce/eliminate stress, fatigue management program, especially for shift workers will serve as key tools to stress management. Periodic seminars / sessions on the common industrial health problems should be organized. Counseling facility should be facilitated for the employees. Practice of peer communication like open communication, ongoing feedback, active listening, information sharing can do wonders. Supportive policies & practices that respect the need for employees to balance home & work responsibilities (e.g., flexible hours, job



sharing, and support for child care) are to be promoted. Employees must have freedom of expression, and protection from harassment and discrimination.

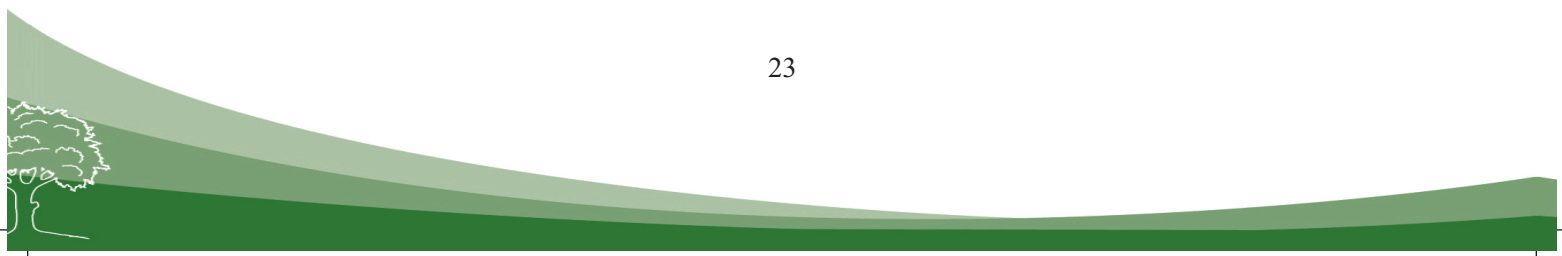
6.6.3 Step wise approach for model

Every industry has its own set of requirements which differs from industry to industry. Therefore, a single model may not be suitable for a country like India. It is proposed to have a stepwise approach for healthy workplaces with a core, expanded and optional components. Core model is that model where the components are mandatory to each and every industry irrespective of its type and can be implemented at the available resources of the company without much investment. It also include mandatory legal and regulatory requirement under the Factory Acts and other legislations. While expanded model is a step ahead to the core model which can be achieved by further investment. Optional as the name indicates, is optional to the type of industry and its requirement. Table 3 shows the proposed Stepwise approach.

By adopting stepwise approach, each industry will have flexibility to adapt and upscale their activities as per their requirements and availability of resources. They can also fix their short term and long term goals.

Table 3: Stepwise Approach to Healthy Workplace in Industrial Settings.

MODEL	PHYSICAL WORK ENVIRONMENT	PROMOTNG HEALTHY PRACTICES	PSYCHOSOCIAL WORK ENVIRONMENT
CORE (includes all legal and regularity requirements)	Ergonomics <ul style="list-style-type: none"> • Good posture • Movement Healthy canteen Emergency preparedness Proper lighting Proper ventilation Waste management Physical, chemical an biological hazards	Healthy diets Physical activity Tobacco/ alcohol use Industrial Hygiene Access to health services Yoga Safe Sex	Management policies on health Stress management Counseling facility Defined working hours
EXPANDED	Fitness facilities Injury prevention	Follow up Employee health records	Periodic seminars Employee recognition
OPTIONAL	Safety equipment & safe facilities	Coping with shift work Reaching out to the families/community of the workers.	Staff involvement in decision making Peer communication Supportive Workforce



6.6.4 Broad framework for developing healthy workplace:

The program should be implemented through State and District Health Mission under NRHM with active participation of state and district industries department and key stakeholders (industry chambers, labour unions, etc). District industry centres should be a nodal agency to implement the program with technical support from District Health Mission. To develop a healthy workplace, a Healthy workplace Committee should be established in the industry with specific terms of references, commitment and leadership. A workplace health committee is a key component in bringing up a healthy workplace as it plays a pivotal role by steering the industries activities towards achieving the desired goal. It should be comprised of 5 or 7 members; chairman being an executive of industry. There's a need for adequate representation from all – those likely to be affected and also those likely effect change.

The committee ought to meet at least once a month and policies be adopted as per needs based on situational analysis. For his a broad Action plan is necessary which needs a framework. Policies should be framed accordingly and be displayed and should not be in files only so as to achieve a positive impact. Role of the committee encompasses ensuring that industry is heading towards its said goal. It should maintain records and practices of the employee, conduct regular assessments, conduct awareness sessions and a walk through survey by members in premises at least twice a year. Involvement of stakeholders and some labour unions should be given immense importance as this will bring sustainability in the developing a healthy workplace. The framework for developing healthy workplace is given in the Figure 6 and can be adopted by individual industry as per their requirements.

Healthy workforce is the real asset of an organization. Though the issue of healthy workplace has been much talked about, the policies towards achieving the same are practically non existent. Here comes the commitment quotient of the management or the healthy workplace committee which requires understanding the impact of a healthy workforce. As employers compete for the best employees, having a Healthy Workplace will be a key attraction – one that pays off with increased productivity, lower absenteeism, fewer disability claims, and increased morale and staff retention. There should be a periodic monitoring and evaluation mechanism.

The healthy workplace approach will provide an opportunity to resolve basic health problems by creating synergies between occupational health, health protection and promotion, human resources management, sustainable human development, and environmental protection. Timely and strict implementation will help to prevent and control lifestyle related NCDs in industrial settings.



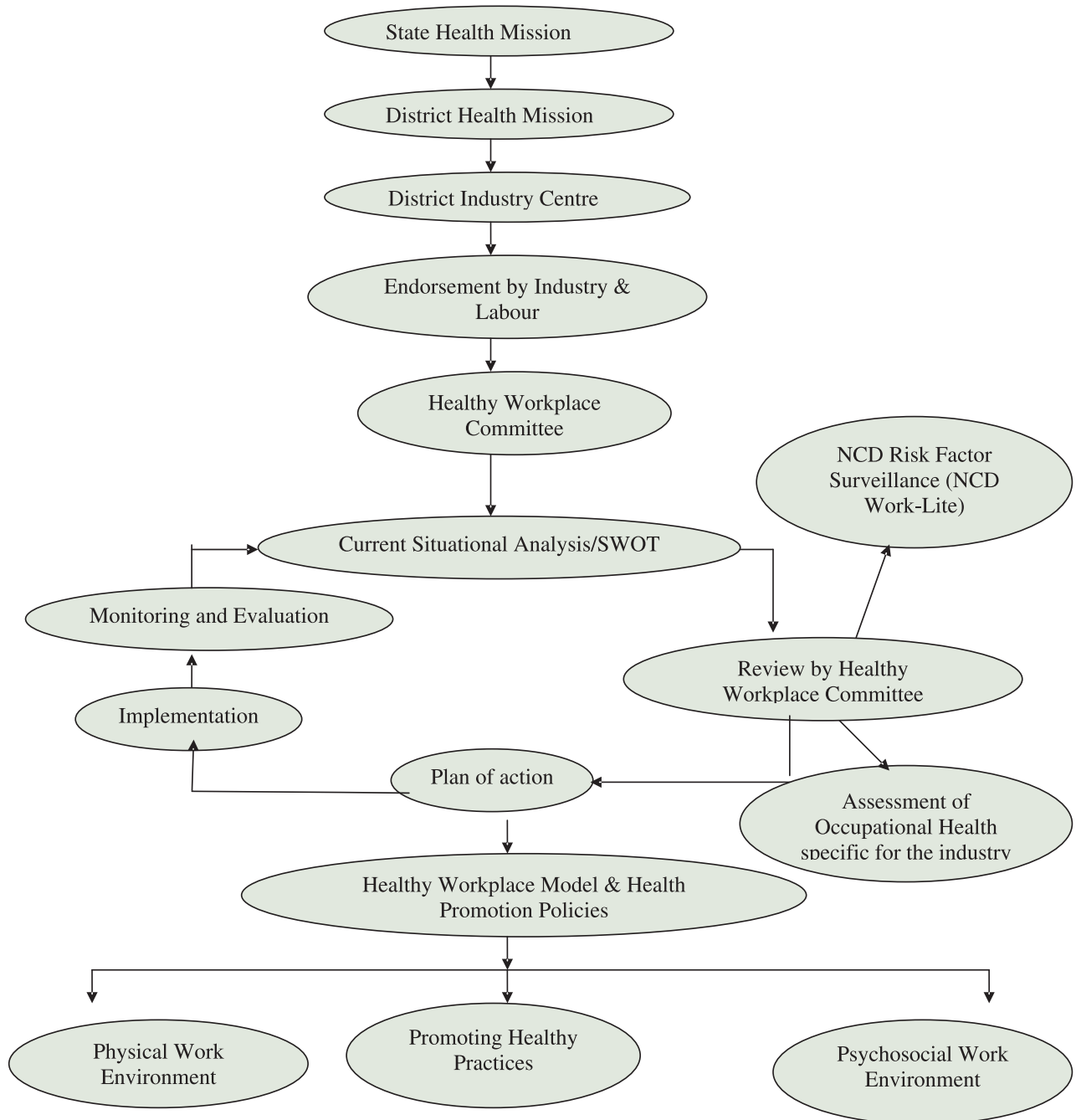
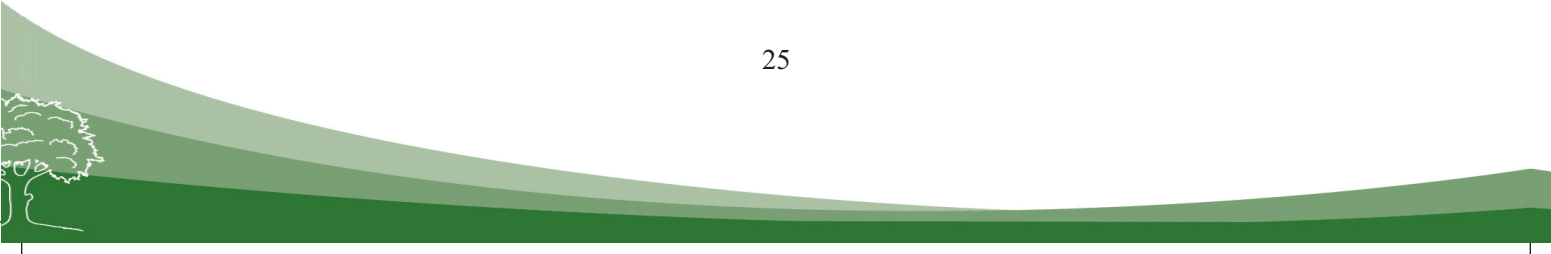


Figure 6: Broad Framework for Developing a Healthy Workplace



6.7 Progress in implementation:

The healthy workplace model was implemented by all 3 participating industries. The progress of implementation of Healthy workplace model is shown in the table 4.

Table 4: Progress of Implementation of Healthy Workplace Model in participating industries

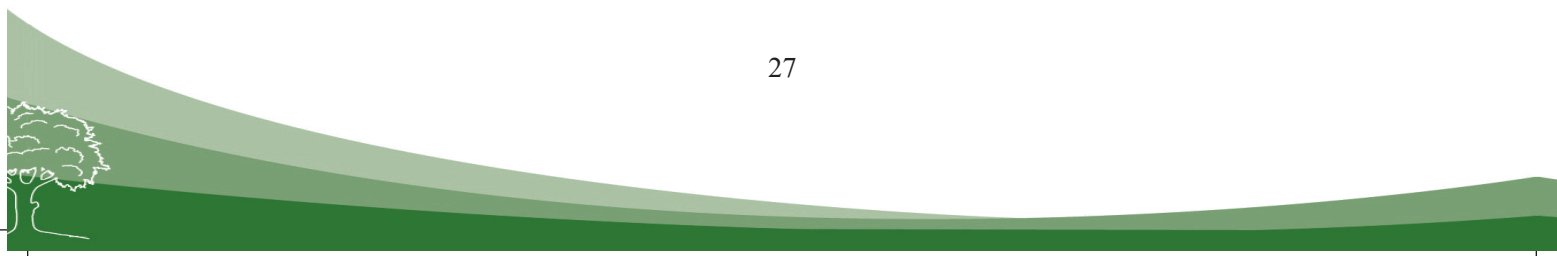
Parameter	Industry X	Industry Y	Industry Z
Healthy Workplace committee in place	√	√	√
Physical Activity			
• Written policy	√	×	×
• Verbal policy	√	√	√
• Physical Activity Calendar for a year	√	√	√
• Physical Activity Sessions	√	√	√
Nutrition & weight control			
• Written policy	√	×	√
• Verbal policy	√	√	√
• Availability of Healthy Food Canteen	√	√	√
Alcohol and Drugs			
• Written policy	√	√	√
• Verbal policy	√	√	√
Smoking			
• Written	√	√	√
• Verbal policy	√	√	√
• Display board for anti-smoking	√	√	√
General Health			
• Established policy on general health	√	√	√
• Medical or Health Officer	√	√	√
Stress & Mental Health			
• Written	×	×	√



Parameter	Industry X	Industry Y	Industry Z
<ul style="list-style-type: none"> • Verbal policy • Stress management sessions 	√	×	√
Physical Environment Safety			
<ul style="list-style-type: none"> • Health and safety policy • First Aid Facility • Emergency preparedness 	√	√	√
NCD Risk Factor Surveillance			
<ul style="list-style-type: none"> • Initiated • No. of employees participated 	√ 503	√ 173	√ 300
No. of Health Promotion material developed and distributed. (Resource materials on smoking, alcohol, yoga, musculoskeletal problems, healthy diets, stretch exercises, calorie chart, etc)	18	14	20
No. of Health Promotion sessions held	10	4	4
Grievance mechanism	√	√	√
Miscellaneous			
<ul style="list-style-type: none"> • Training programs and Health Check-ups (Occupational safety, first aid, personality development programs, ENT check-ups, eye check-ups, oral health check-up and education) 	6	2	3

Industry X:

This industry took keen interest in the implementation of the healthy workplace program. Compliance issues are strictly followed and the industry has been framing policies and plan relevant to the workplace wellness program for the betterment of the employees and at large for the industry itself. But policy for nutrition and stress management is needed though it has already taken up the initiatives. Many other miscellaneous training programs like occupation safety training, first- aid training, personality development programmes and various other health check-up programs have been initiated.



Industry Y:

Programmes have been initiated and in place but more stringent actions and initiatives are needed for achieving the said goal. This needs broader healthy workplace committee with participation of key departments and a regular meeting is recommended for the same. Implementation in public sector industry was slow because of procedural delays and lack of commitment from top management.

Industry Z:

Industry Z is also found to be receptive and has already implemented some of the important areas of the healthy workplace implementation programme. Relevant policies and programmes have been framed and also upgradation of the already existing policies has been done. The industry is now trying to convert the verbal policies into a written one. Policy formulation for stress management has been started but needs to work more on it. Regular healthy workplace meeting is recommended. The industry has started some or the other indoor and outdoor games among the employees on a monthly basis or a bimonthly basis.



Stakeholders Workshop



Discussion in context to NPDCS

MOHFW has launched National Programme for Prevention and Control of Diabetes, Cardiovascular disease and Stroke with the objectives to prevent and control of NCDs, to generate awareness on lifestyle changes, Early Detection of NCDs and to build capacity of health systems to tackle NCDs.

From our experiences, besides the diseases for NPDCS, diseases such as musculoskeletal problems are also found to be equally prevalent among the industrial employees. Since these diseases share common risk factors like unhealthy diet, physical inactivity, tobacco, alcohol consumption, stress, bad posture, so focus should be made on these risk factors for health promotion program. For implementation of a Healthy Workplace promotion program district industry centre/department should be a nodal agency with technical support from District Health Mission. District and state NCD cell should have representatives of district and state industry department and other key stakeholders. Many models for healthy workplace are available but none fits individually. Because of diverse nature of industries in India, a single model will not be suitable to cater to the needs of industries, so a step-wise approach is recommended. As employers compete for the best employees, having a healthy workplace will be a key motivating factor that pays off with increased productivity, lower absenteeism, fewer disability claims, and increased morale and staff retention. Since India is having a large unorganized sector, at least core model should be implemented by working out state specific strategies. The healthy workplace approach will provide an opportunity to resolve basic health problems by creating synergies between occupational health, health protection and promotion, human resources management, sustainable human development, and environmental protection. Timely and strict implementation will help prevent unwanted lifestyle related diseases the so called, NCDs.



Health Promotion Session in Progress





Conclusion & Recommendations:

A Healthy workplace model is feasible and can be implemented in the Indian industrial settings with the involvement of key stakeholders.

1. Healthy workplace committee should be formed in every industry which will act as a link between workers and managements and a guiding force for achieving a healthy workplace.
2. Besides the diseases covered under NPDCS, musculoskeletal problems are also found to be commonly prevalent in the industrial population.
3. Workplace health promotion should focus on preventable/modifiable risk factors which are unhealthy diet, physical inactivity, tobacco, alcohol consumption, stress and also bad posture.
4. As per our experiences, a holistic/integrated healthy workplace program is more relevant to Indian industrial settings where programs on non-communicable disease prevention can go hand in hand with the ongoing communicable disease control programs, as disease specific program may not be feasible.
5. Each and every industry has its own specific requirements. Hence a step-wise approach is required to cover the organized and unorganized sectors in India.
6. A broad framework developed under the project can be used for developing healthy workplaces and can be modified as per requirement.
7. A nodal agency should be identified for Workplace health promotion programme. For this, a nodal ministry at central and state level should be identified. It could be Health/Labour/Industry Ministry in partnership with other key stakeholders.
8. The programme should be implemented through District and State Health Mission under NRHM with active participation of district and state industry department and other key stakeholders. District industry centres should be a nodal agency at district level with technical support from District health mission. District and state NCD cell should have representatives of respective industry department for ownership of the programme.
9. There should be an accreditation program for healthy workplaces and an agency should be identified and should work out at national and state level for implementation and supervision and monitoring of the program. Quality Council of India (QCI), which has already devised similar programme for health care industry in India, could be a potential agency. Strict implementation of ESI Act and Factory Act should be made mandatory.

Provision of health care to employees varies from industry to industry and should be flexible. There should be a mechanism for thorough periodic health assessment of the employees on an annual basis and proper records.



Sustainability

The model is being implemented in the three participating industries. The monitoring and evaluation is also being done. Based on the experience, participating industries has decided to continue the program with their own resources. In fact, industry Z has decided to extend to all 30,000 employees working in the country and overseas. Chandigarh Administration has decided to upscale the programme to state level programme for control of occupational diseases and has made a budgetary provision of Rs.5.54 lakhs under Project Implementation Plan (PIP) of NRHM for 2009-10.



Commitment of key stake holders (Director Health Services, UT. Chandigarh)

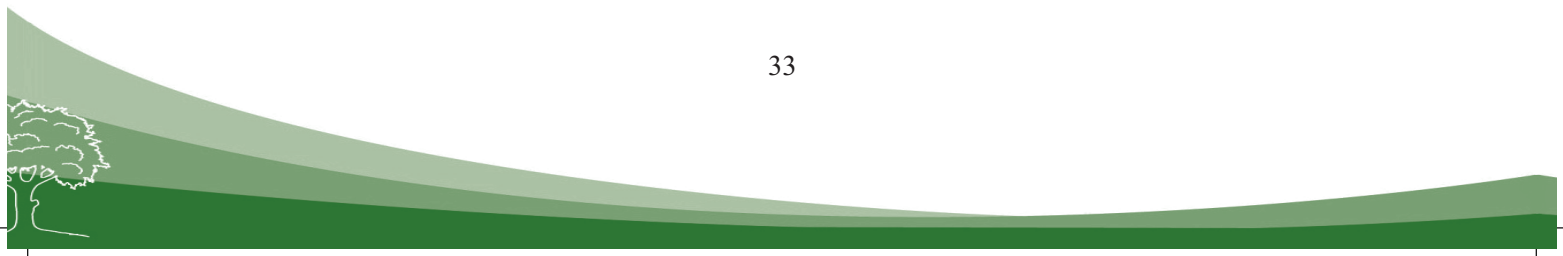


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ANNEXURE I

Industry X:

It is a manufacturing industry functioning for more than 150 years. It has 1100 employees which include two departments. It has provided support for the machine-building industry all over the world, as a reliable supplier and innovative problem solver. It maintains a tight sales organization in over 150 countries. The customers are serviced either through its own affiliates or through its reliable local distribution partners. The groups of customers include machine builders and end consumers in the knitting and hosiery industry with their many different fields of business. The industry's aim is to provide expert assistance in each of these developments taking place in our original field of business.

Industry Y:

It is an electronic industry which was set-up in 1983 in SAS Nagar, Mohali, in the green, unpolluted environs on the outskirts of Chandigarh. It has 550 employees which include eleven departments. With its objective to design, develop and manufacture VLSIs and VLSI based systems and sub systems, and to create a strong R&D base, it entered into a technical collaboration with American Microsystems Inc. USA and in 1984 commenced commercial production in 5 micron CMOS technology. Through intensive in-house R&D efforts, it developed and productionised the next generation 3 micron, 2 micron, 1.2 micron, 0.8 micron as well as certain specialized technologies such as EEPROM. The company has over the years developed and manufactured a number of key VLSIs for the Telecom and Industrial sectors. Its vertically integrated semiconductor operations offer design, wafer fabrication, testing, packaging, quality assurance and reliability testing, VLSI based system manufacturing and applications support all under one roof. Within this framework, this industry places a lot of emphasis on its semiconductor operations - consistently building on its specialization in areas like Mixed Signal Devices, Micropower Technology, Digital Signal Processing, etc. This fulfils the demand of its customers in focus areas without ignoring its growing base of customers in consumer and industrial electronics. From single chip to total solutions, this industry is a one-stop microelectronics organization. It offers its customers total solutions by providing Standard/ASSPs, designing chips from concepts and creating products around ASICs for industrial segment. Add to this the technical service support; the customers have remarkable flexibility to interact with SCL at any stage.

Industry Z:

It is a joint venture between the Mahindra group and British Telecommunications plc (BT), UK with the Mahindra group holding 57% and BT holding 43% of the equity. It has 600 employees which include 8 departments. For over two decades, this industry has been the chosen transformation partner for wireline, wireless and broadband operators in Europe, Asia-Pacific and North America. Majority owned by the industry, one of the Top 10 industrial houses in India, in partnership with British Telecommunications plc (BT), world's leading communications service provider, Industry Z has grown rapidly to become the 6th largest software exporter in India (NASSCOM 2007) and the second largest telecom software provider from India (Voice & Data 2007). With its core strength in providing Telecom Solutions, it provides a wide variety of services ranging from IT strategy and consulting to system integration, design, application development, implementation, maintenance and product engineering. Some of the Partners of this industry include: Convergys, Siebel, LHS, Azure, Openet Telecom, jNetX Industry Consortia, OSS/J, Tele Management Forum, Microsoft, Oracle, IBM, BEA, Celona. Founded in 1988, this industry is a leading IT services provider to the global telecommunications industry. The industry has serve telecom equipment manufacturers, service providers, software vendors and system integrators. Its global customers include Alcatel, Alltel, BT, Convergys, Ericsson, Marconi, O2 and Vodafone. It has also recently been acclaimed as a leader in 'The Global Outsourcing 100' list at the 2006 Outsourcing World Summit. The ranking is advocated by the International Association of Outsourcing Professionals (IAOP). It has its principal offices in the UK, United States, Germany, UAE, Egypt, Singapore, India, Thailand, Taiwan & Australia – including major development facilities in India and the UK.



ANNEXURE II

Healthy Workplace Assessment Comprehensive Survey Form

* Please help us by providing information and activities of interest by completing the healthy workplace survey performa below. This survey uses a combination of answer scales and open-ended responses.

The survey is confidential and all comments will be summarized and grouped together so that no one can be identified. Thank you for your input!

General information on the Organization

1. Name of Organization _____
2. Address: _____
3. Name of managing director/proprietor _____
4. Telephone No.& Fax No _____
5. How would you describe what your organization does? _____
6. Are you a part of larger Organization? Yes No (If No, go to Ques 9)

If yes, please provide details about the rest of the organization. _____

7. Is the parent Organisation/ central office willing to support you to developing a healthy workplace programme? (Tick one box only)

Yes No (If No, go to Ques 9)

8. If yes, please provide details _____

From this section onwards, please consider all your answers in terms of the part of the organization/department that is developing the healthy workplace programme. If this is the whole organization, answer from this perspective.

9. How many employees including you currently work in the organization?

(This includes all full time and part-time employees)

Male employees: _____ Female employees: _____

10. What are there work patterns? (Tick all that apply)

- Regular Hours, eg 8:00am-6:00pm
- Shift Patterns, eg shifts outside regular hours
- Both regular hours and shift patterns
- Others (please specify)

Health and wellbeing

Through out this assessment there are questions about **health policy**, relating to areas such as physical activity, nutrition, alcohol misuse, smoking, stress and general health.

When talking about individual policies relating to specific health areas, a policy may be a separate document dealing specifically with health and well being, or it may be contained within other organizational policies and documents.

Question	Physical activity	Diet/ Nutrition	Smoking	Stress & Mental health	General health	Alcohol drugs
1.Does your Organisation has a policy on	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Describe the policy, e.g. whether it is written or unwritten , what it includes and the name of the documents in which it is contained.	<input type="checkbox"/> Written <input type="checkbox"/> Unwritten	<input type="checkbox"/> Written <input type="checkbox"/> Unwritten	<input type="checkbox"/> Written <input type="checkbox"/> Unwritten	<input type="checkbox"/> Written <input type="checkbox"/> Unwritten	<input type="checkbox"/> Written <input type="checkbox"/> Unwritten	<input type="checkbox"/> Written <input type="checkbox"/> Unwritten
If written 2a. When was the last time the policy was reviewed						
If unwritten 2a.Would you consider introducing a policy or improving your existing policy						



11. As part of the healthy workplace program for your company, please identify the areas within the model where you would like to learn more. (Check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Health and Lifestyle Practices | <input type="checkbox"/> Alcohol and other drug use |
| <input type="checkbox"/> Blood pressure control | <input type="checkbox"/> Healthy sexual practices |
| <input type="checkbox"/> Nutrition | <input type="checkbox"/> Physical activity |
| <input type="checkbox"/> Stress management | <input type="checkbox"/> Tobacco use |
| <input type="checkbox"/> Others (please specify) _____ | |

12. Workplace Culture and Supportive Environment

- Availability of learning opportunities
- Communication initiatives to enhance teamwork and cooperation
- Conflict resolution training
- Employee input/participation in decision-making
- Employee recognition programs
- Flexible work options
- Identifying sources of stress and approaches to reducing sources
- Physical workplace design
- Respectful workplace and harassment prevention
- Workload management and productivity practices
- Others (please specify) _____

13. Physical Environment and Occupational Health and Safety

- | | |
|---|---|
| <input type="checkbox"/> Emergency systems | <input type="checkbox"/> Environmental issues |
| <input type="checkbox"/> Ergonomics | <input type="checkbox"/> Hazard assessment and control |
| <input type="checkbox"/> Managing workplace conditions and facilities | <input type="checkbox"/> Occupational hygiene (lighting, indoor air quality, noise control) |
| <input type="checkbox"/> Workplace violence prevention | <input type="checkbox"/> Others (please specify) _____ |

14. Activity Questions

14a. How likely are you to participate in a healthy workplace activity offered by your company? (i.e. Nutrition, Stress, physical activity, Alcohol and smoking cessation seminars)

- Not at all Somewhat likely Likely Very likely

15. Please identify the areas where you'd like to see activities implemented for your employees. (check all that apply)

Health and Lifestyle Practices

- | | |
|---|---|
| <input type="checkbox"/> Alcohol and other drug use | <input type="checkbox"/> Blood pressure control |
| <input type="checkbox"/> Healthy sexual practices | <input type="checkbox"/> Nutrition |
| <input type="checkbox"/> Physical activity | <input type="checkbox"/> Stress management |
| <input type="checkbox"/> Respectful workplace and harassment prevention | <input type="checkbox"/> Tobacco use |
| <input type="checkbox"/> Others (please specify) _____ | |

16. If you were to participate in a healthy workplace activity, what time of day would work best for you? (check all that apply)

- Before work Morning Lunch-hour Afternoon After work

17. How much time would you be able to commit, on average, for attending a healthy workplace activity?

- Less than 30 minutes Between 30-45 minutes Not interested
- Between 45-60 minutes Greater than 60 minutes

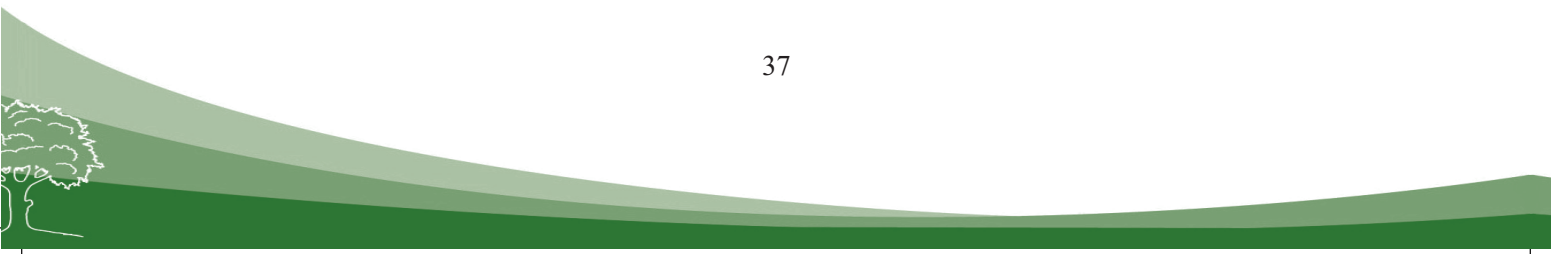
18. What factors would encourage you to be more actively involved with healthy workplace activities? (check all that apply)

- Accessibility Time
- Social support Child care Others (please specify) _____

19. Please provide suggestions for specific activities that you'd like to see included in your company's healthy workplace program.(i.e. Nutrition Seminar, Lunch & Learns etc: _____

20. Please provide suggestions for topics and presenters/groups that could be contacted as part of the healthy workplace program. _____

21. Please identify the aspects of our work environment (if there are any) that should be changed to be more supportive of healthy workplace practices. _____



Communications Questions

22. Please identify the current sources you use to gather health information.

- Television Radio
- Internet Email
- Newsletters, brochures, posters Discussion groups
- Workshops/seminars with expert presenters Preventative health screenings
- Formal learning sessions (ie. classroom learning)
- Others (please specify) _____

23. Please identify how you would like to receive health information at your industry. (check all that apply)

- Internet sites Email Workshops/seminars with expert presenters Discussion groups
- Formal learning sessions (ie. classroom learning) Newsletters/brochures/posters

PHYSICAL ACTIVITY

24. Does your organization provide or support any of the following? (Tick all that apply)

- Awareness raising materials on physical activity, e.g. posters Written materials providing information on physical activity

ACTIVITIES

- A walking group over lunch time
- A walking group outside the work
- Physical activity sessions during lunch time
- Physical activity sessions outside working hours
- Subsidizing or supporting GYM/ Leisure centre attendance
- Team building events which include physical activity
- Taking part in competitive events with other workplaces

Please specify what type of competitive event you have had/ would be able to support: _____

Nutrition and Diet control

- 25. Does your Organisation provide or support any of the following? Yes No
- Facilities for cooking food Yes No
- An eating area Yes No
- A water Dispenser/filtered water jugs Yes No
- Scales for employees to weigh themselves Yes No

Information and awareness raising with employees

- Awareness raising material on healthy eating, eg posters
- Written information on healthy eating
- Information sessions on healthy eating
- Written information on support/services to help loose weight

Activities on Nutrition and Weight control

- A healthy eating week/ 'taste and try days'
- Providing or subsidizing fruits other _____
- None of the above

Alcohol and Drugs

26. Does your Organisation provide or support any of the following? Yes No

- Management Practices and Support
- Raise awareness and provide guidance to staff, who are in a supervisory or management role, on the symptoms effect on work and health consequences of alcohol and drug misuse
- Have disciplinary procedure in place to deal with those who come into work under the influence of alcohol or drugs

Information and awareness raising with employees:

- Awareness raising material, eg posters
- Written information on how employees can access advice or counseling services on alcohol or drug misuse.
- Other (specify) None of the above



SMOKING

27. Please estimate how many of your employees smoke.

No. of employees who smoke _____

Don't know _____

Yes No

28. Describe where (if anywhere) in your organization premises employees are allowed to smoke _____

29. Please provide any of the details about your policy on smoking _____

30. Does your Organization provide or support any of the following? (Tick all that apply)
Which of the following do you think your organization would like to provide or support?

Information and awareness raising with employees

Awareness raising material on health effects of smoking, eg posters

Written information on how to quit smoking

Helpline which can provide support and advice for quitting

Activities

Taking part in No Smoking Day

Others (please specify) _____

None of the above _____

Men's Health

31. Does your Organization provide or support any of the following? (tick all that apply)
Which of the following do you think your organization would like to provide or support?

Information and awareness raising with employees

Awareness raising material. e.g. posters

Written information on organizations that can provide further information or support.

Activities

A talk from an organization specializing in cancer and men's health, delivered in your workplace.

Other (please specify) _____

None of the above _____

Not applicable, no males in the organization

Women's Health

32. Does your Organization provide or support any of the following? (tick all that apply)
Which of the following do you think your organization would like to provide or support?

Awareness raising material. eg posters

Written information for employees on breast cancer

Written information for employees on cervical cancer

Written information on organizations that can provide further information or support

Activities

A talk from an organization specializing in cancer and women's health, delivered in your workplace.

Other (please specify) _____

None of the above _____

Not applicable, no females in the organization

STRESS AND MENTAL HEALTH

33. Overall, how would you perceive the level of work-related stress within your organization?
(Tick one box only)

Very low Quite high Quite low Very high Neither high nor low Don't know

34. Are you aware of the health and safety executive six management standards for work-related stress? Yes No

The Management Standards approach has been developed by the health and safety executive to reduce the levels of work related stress reported by employees. It demonstrates good practice through risk assessment, allows measurement of the current situation using surveys and other techniques, and promotes active discussion with employees to help decide upon the practical improvements that can be made

35. Does your Organisation provide or support any of the following? (tick that apply)
Which of the following do you think your organization would like to provide or support?

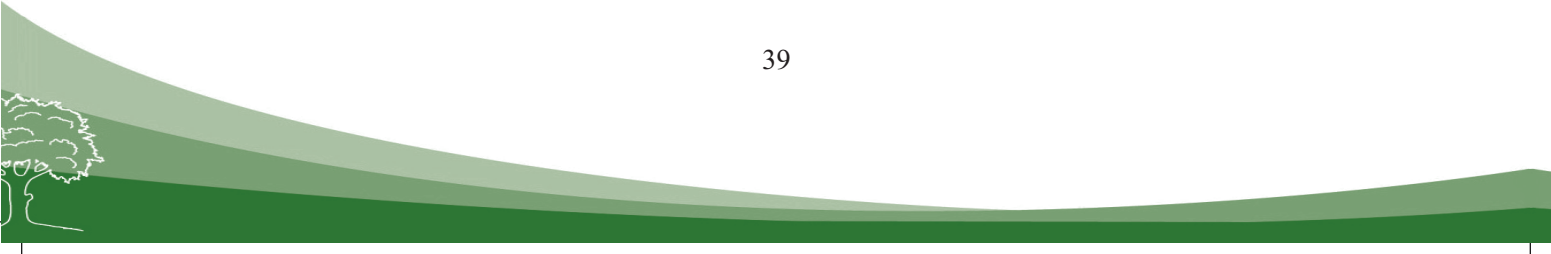
Information and awareness raising with employees

Awareness raising material. eg posters

Information sessions on stress awareness

Written information on stress and how to cope with it

Written information on stress management techniques eg relaxation



Management practices and support

- Provide a confidential counseling service
- Carry out stress audits
- Develop shifts patterns that minimize stress
- None of the above
- Others (specify) _____

General Health

36. Does your Organization provide or support any of the following? (Tick that apply)
Which of the following do you think your organization would like to provide or support?

- A talk from an organization specializing in cancer, delivered in your workplace
- Health checks for staff, eg blood pressure, cholesterol, lifestyle advice
- Other health areas not listed previously (please specify) _____

PHYSICAL ENVIRONMENT- SAFETY

37. Does your organization have its own health and safety policy? (Tick one box only)
 Yes No (Go to ques 64)

38. Describe how employees are made aware of the health and safety policy _____

39. Describe the policy, eg whether it is written or unwritten, what it includes and the name of the documents in which it is contained

40. If your organization has written policy on health and safety, when was the last time it was reviewed? _____

41. Would you consider introducing a policy or improving your existing policy?
 Yes No

42. Do employees have input into health and safety practices? Yes No
If Yes, please provide details: _____

43. Describe how employees are made aware of health and safety in workplace? _____

44. Do you have written risk assessments? Yes No In progress

45. Please outline the health and safety training you provide for employees:.....
.....

46. Do you have first Aid Box on your work premises? Yes No

47. Do you have one or more trained first aiders in your workplace? Yes No

48. Would you like to have one or more trained first aiders or more first aiders?
 Yes No

49. Do staff in your organization work in shift patterns? Yes No

50. Is action taken to minimize the effects of shift work on employees personnel lives and their health?
 Yes No

51. Please specify what this action is? _____

52. Do you recommend that staff using keyboards/ computer monitors take regular breaks from this type of work?
 Yes No N/A



WORKING ENVOIRENMENT

53. Please indicate if you believe any of the following are causing the workplace to be unhealthy, unsafe or unpleasant to work in

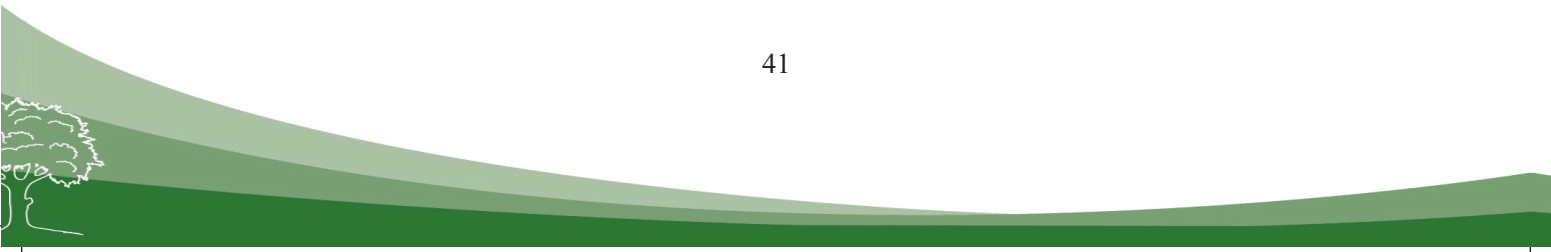
- Poor Lighting (too much, too little, etc)
- Poor air quality/ventilation (stuffy, not enough air)
- Temperature that are too high or too low
- Vibrations from hand tool machinery
- Noise (from machinery)
- Noise (from colleagues talking)
- Unsafe work area (eg cluttered or badly designed work areas)
- Too much keyboard works without breaks
- Looking too long at a VDU/Monitor without breaks (risk of eye strain)
- Poor seating
- Inadequate access to staff facilities (eg toilets, kitchen or eating area)
- Unsafe equipment or machinery (including office equipment)
- Loose cabling or wiring in the workplace
- Poor lifting or carrying techniques
- Lack of personnel protective equipment or clothing
- Lack of adequate safety training
- Lack of or no fire drills
- Please provide details on any of the areas you have identified: _____

54. If your Organization uses occupational health services or support, please provide details: _____

LEADERSHIP AND MANAGEMENT (HUMAN RESOURCE)

55. From the following list, identify the policies, procedures or documents you currently have in place and describe each one, eg whether it is written or unwritten what it includes and the name of the document in which it is contained. For those areas where you do not currently have a policy, identify whether you would like to develop one and prioritise when you would like to develop it by circling Short /Medium/ Long Term

- | | | | |
|-----------------------------|-------------------------------------|--------------------------------------|--|
| ➤ Flexible working hours | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Family friendly | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Career leave | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Career breaks | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Grievance/Complaints | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Bullying | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Harassment | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Violence in the workplace | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Domestic Violence | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Equal Opportunities | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Job Share | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Training and development | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Paternity Leave | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Maternity Leave | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Staff appraisal | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Job Descriptions | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| | <input type="checkbox"/> Short term | <input type="checkbox"/> Medium Term | <input type="checkbox"/> Long term |
| ➤ Employee Handbook | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Short term <input type="checkbox"/> Medium Term |



56. Do you currently record absenteeism rates in your workplace? Yes No
57. If No, would you like to develop a system for recording absenteeism as part of this programme? Yes No
58. Do you have a formal absence management system (this is a systematic approach to deal with sickness absence)? Yes No
- If Yes, please describe it: _____
59. If No, would you like to develop a formal absence management system as part of this programme? Yes No
60. Do you formally measure staff satisfaction rates within your organization? Yes No
61. If No, would you like to develop a system of measuring staff satisfaction rate as a part of the programme? Yes No
62. Do you carry out exit interviews in your workplace?
If Yes, please describe how? _____
63. If No, would you like to look at developing an exit interview procedure as a part of this programme? Yes No

PLANNING

64. Do you have a business planning process and/or written business or operational plan? Yes No
65. If you have a written business or operational plan, do you include staff and training and development within it? Yes No
66. Does your business/organization have a training plan? Yes No
67. Does your organization include workplace health within its planning process? Yes No
- Communication
68. Are staff consulted on policy development? Yes No

69. Which of the following channels are used on regular basis to communicate with your employees?

- | | |
|--|---|
| <input type="checkbox"/> Notice Board | <input type="checkbox"/> Staff meeting |
| <input type="checkbox"/> Health and safety meetings | <input type="checkbox"/> Other meetings/committees |
| <input type="checkbox"/> Through employee trade union reps | <input type="checkbox"/> Circulation of minutes |
| <input type="checkbox"/> Staff newsletter | <input type="checkbox"/> Wage packet inserts |
| <input type="checkbox"/> Electronic communications (E- mail or intranet) | <input type="checkbox"/> Briefing sheets |
| <input type="checkbox"/> Face to face/informal | <input type="checkbox"/> Other (Please specify) _____ |

70. Do you communicate with staff about health messages?

- Yes No
- If Yes, Formally Informally

71. Do staff have access to the internet in work?

- Yes No
- If Yes, all staff only certain staff

Safety in Workplace

Thank you for your time in completing the healthy work place organizational health assessment. The information from this document will be used alongside the needs assessment of employees to develop your healthy workplace action plan. Discussions should take place between all employed in the organization to agree the resulting final action plan.

Training and Evaluation

72. Do you provide staff with training related to job?

- Yes No

73. Have you ever implemented any health promoting workplace activities or initiatives?

- Yes No

74. If yes, do you evaluate health promoting workplace activities or initiatives and if so, how? _____



ANNEXURE III

Healthy workplace assessment- Rapid form

Key Components	YES	NO	NA
Policy on Physical Activity			
Policy on Nutrition & weight control			
Policy on Smoking			
Policy on Alcohol & Drugs			
Policy on Stress & Mental Health			
Policy on General health			
Health Insurance Policy			
- Indoor			
-Outdoor			
-Medical Reimbursement of Bills			
Workplace culture and Supportive environment			
Communication to enhance team work			
Conflict resolution Training			
Flexible work Options			
Workload Management and productivity practices			
Physical environment and Occupational Health & Safety			
Emergency System			
Ergonomics			
Occupational hygiene (lighting, indoor air quality)			
- Occupational Health & Safety Officer			
Health & lifestyle activities implementation for the employees at workplace			
Alcohol & drug use			
Tobacco use			
Blood pressure control			
Physical Activity			
Stress management			
Nutrition			
Source of Communication for health information			
Television			
Radio			
Newspaper/Magazines/Brochures			
Workshops/Seminars			
Internet/ Electronic media			
Health awareness materials (Posters/brochures)			
Physical activity			
Nutrition & weight Control			
Alcohol & Drugs			
Smoking			
Smoke free zone			
Stress management			



ANNEXURE IV A

NCD WORK - LITE' (Life style related health risks at workplace)

Core Demographic Information

1. Name (optional).....
2. Sex (Record Male/ Female as observed) (Male=1, Female=2)
3. How old are you?
4. What is your religion? (Hindu =1, Sikh =2, Muslim=3, Christian =4, Others=5)
5. What is the highest level of education you have (Post Graduate = 1, Graduate = 2, Higher Secondary = 3 Matric = 4, Below Matric = 5)
6. Which of the following describes your main work status over the last 12 months? (Professional=1, Skilled =2, Semi-skilled=3, Unskilled=4)
7. Taking the past year, can you tell me what the average earnings of the household have been? (Per month)

Core Behavioral Measures (Tobacco and Alcohol)

8. Do you currently smoke any tobacco products, such as cigarettes, cigars, pipes, bidi, huka? (Yes=1, No=2)
- 8 a. If yes, do you currently smoke tobacco products daily? (Yes=1, No=2)
9. Do you currently use smokeless tobacco products such as (snuff, chewing tobacco, or betel) (Yes=1, No=2)
- 9 a. If yes, do you currently use smokeless tobacco daily? (Yes=1, No=2)
10. Have you ever consumed a drink that contains alcohol such as beer, wine, spirit? (Yes=1, No=2)
11. Have you consumed alcohol within the past 12 months? (Yes=1, No=2)
12. In the past 12 months, how frequently have you had at least one drink? (5 or more days a week=1, 1-4 days per week=2, 1-3 days a month=3, less than once a month=4)

Core Diet

13. Are you a vegetarian or non-vegetarian? (Veg =1, Non veg=2)
14. In a typical week on how many days do you eat fruits?
15. In a typical week on how many days do you eat vegetables?
16. How would you describe your salt intake? (Normal=1, Moderate=2, High =3)
(<5gm) (5-10gm) (>10gm)
17. What type of oil or fat is most often used for meal preparation in your household? (Vanaspati =1, Desi Ghee =2, Refined/Vegetable oil =3)
18. Do you take fast foods? (Yes=1, No=2)
18. a If Yes how many days per week?



Physical Activity

- 19. How do you describe your nature of work (Sedentary =1, Moderate=2 (physically active but no heavy manual work), Heavy manual work =3)
- 20. Does your work involve sitting or standing with walking for no more than 10 minutes at a time. (Yes=1, No=2)
- 21. How do you travel to your work place? (Walking=1, Cycling=2, Motorized vehicle=3)
- 22. Do you do regular physical exercise outside your working for more than 10 minutes in a day? (Yes=1, No=2)

History of diseases

- 24. During the past 12 months have you been told by a doctor or other health worker that you have any of the following diseases? (Yes =1, No=2)
 - a. History of Diabetes
 - b. History High blood pressure
 - c. Back pain/ musculoskeletal pain
 - d. Do you suffer from chronic cough continuously for 3 months for consequently 2 years?
 - e. Cancer If yes, cancer of which organ please specify _____
- 25. Do you feel you are constantly under stress? (Yes=1, No=2)
- 25a.If Yes (Home stress =1, Work place stress=2)

Anthropometric measurements:

Height: 1) _____ cm **Weight:** 1) _____ kg

Waist 1) _____ cm (Men: Normal: <94cm, Risk: 94-102cm, High Risk: ≥ 102 cm
Women: Normal: < 80 cm, Risk: 80-88 cm, High Risk: ≥88cm)

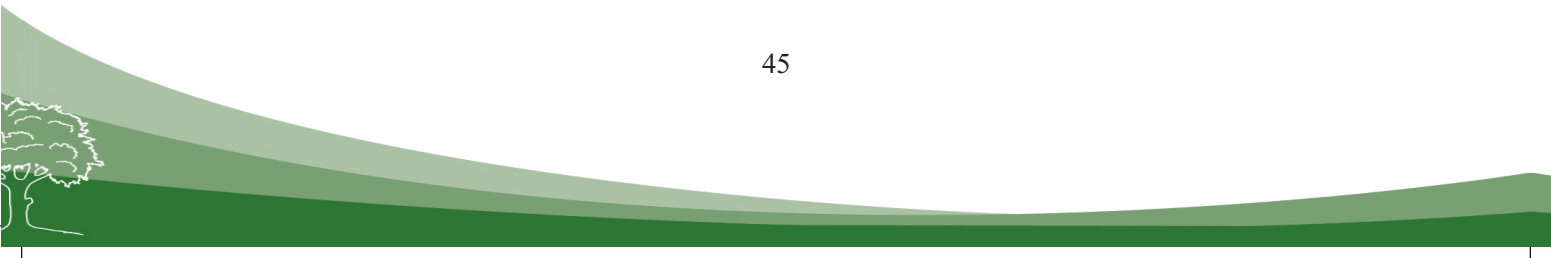
BMI (kg/m²) _____
(Underweight < 18.5, Normal 18.5 -24.9, Overweight 25.0 -29.9, Obese ≥30)

Blood Pressure: Systolic _____ Diastolic..... mm of Hg
Blood Sugar _____ Blood Cholesterol _____

Consent:

This is a mutually and consensually agreement between employee and investigator, that the information provided herein shall be strictly treated as confidential and private. This information will be used by the investigator for the purpose of academic study only and it will not be used for any other purpose/shared with any organization officially or privately.

Signature of employee _____ Signature of Investigator _____



ANNEXURE IV B

कंपनी कोड ()

क्रायकारी कोड ()

डियारटमेंट / डिपार्टमेंट / डिवीजन

जानहित सेहत स्कूल, पी.जी.आई.एस.ई.आर, सैक्टर-12 चंडीगढ़

सेहतमन्द काम करने के स्थान के लिए मोडल का विकास एन.सीण्डी.वर्क लाईट (काम करने के स्थान पर जीवन दंग सं संबंधित सेहत रिस्क)

1. नाम ()
2. लिंग (सत्री) (पुरुष = 1, स्त्री, 2) ()
3. आपकी आयु कितनी है? ()
4. आपका धर्म कौन सा है? (हिन्दू, सिक्ख, मुस्लिम, ईसाई) ()
5. आपकी सबसे उच्च सनीय शिक्षा कौन सी है। (उच्च स्नातनक = 1 दूसरे स्नातनक = 2,) ()
उच्च सैकण्डरी = 3, मैट्रिक से नीचे - 5 ()
6. इनमें से पिछले 12 महीनों में अपने विशेष काम के लिए अपनाया है (काम धंधा = 1, कुछ सीखना = 2, कुछ आधा सीखना = 3, कुछ नहीं सीखा = 4) ()
7. पिछले वर्ष को लेते हुए क्या आप बता सकते हैं कि घर को चलाने के लिए औसतन कमाई क्या रही थी? (प्रति महीना)
व्यवहारिक नाप (तबाकू तथा एलकोहल)
8. क्या आप अभी भी तबाकू वस्तुओं जैसे सिगरट, सिगार, पाईप बीड़ी, हुक्का इत्यादि का इस्तेमाल करते हैं? (हां = 1, नहीं = 2) ()
9. क्या आप बिना धुए वाले तबाकू का इस्तेमाल अभी भी करते हैं। ()
जैसे (सनक, चबाने वाला तबाकू, या बेरल) (हां - 1, नहीं = 2)
अगर हां, तो क्या आप इन तबाकू पदार्थों का सेवन हर रोज करते हैं?
(हां = 1, नहीं = 2) ()
- 9.(a) अगर हां, तो क्या आप धूयां रहित तबाकू का सेवन हर रोज करते हैं? ()
10. क्या आप अभी भी शराब लेते हैं जिनमें एलकोहल होता है
पैसे बीयर, खराब, सपिरिट? (हां = 1, नहीं = 2) ()
11. क्या आपने पिछले 12 महीनों में एलकोहल का सेवन किया है? (हां = 1, नहीं = 2) ()
12. पिछले 12 महीनों में कितनी देर तक आपने लगातार एक ड्रिंक करी है? ()
(हफते में 5 या इसमें अधिक दिन - 1, 1-4 दिन प्रति हफता - 1, 1-3 दिन प्रति महीना - 3
महीने में एक बार से भी कम - 4)
- स्वाने पीने सम्बन्धी
13. क्या आप शाकाहारी हैं या मासाहारी? (शाकाहारी - 1, मासाहारी - 2) ()
14. एक हफते में आप कितने दिन फल खाते हैं? ()
15. एक हफते में कितने दिन आप सब्जियाँ खाते हैं? ()
16. आप अपने नमक की मात्रा को कैसे बताएंगे?
(साखारण - 1, 5 ग्रा, मध्यम स्तरीय - 2, उच्च - 3) ()
17. आपके घर में भोजन बनाने के लिए अक्सर किस तेल या चर्बी का इस्तेमाल होता है? (वन्सपति
- 1, देसी घी - 2, रिफाईंड-सब्जियों का तेल) ()



18. क्या आप फास्ट फूड लेते हैं? ()
 b अगर हां तो हफते में कितने दिन? ()

शारीरिक क्रिया

19. आप अपने काम करने के वर्ताव को कैसे बताएंगे? (ठीकठाक-1,) ()
 20. क्या आपके काम में बैठना या खड़े होना शामिल होता है जैसे एक समय में 10 मिनट से अधिक न हो? (हां-1, नहीं-2) ()
 क्या आप दिन में अपने काम के अतिरिक्त भी 10 मिनट से अधिक कसरत करते हैं?
 (हां-1, नहीं-2)

बीमारियों की जानकारी (इतिहास)

21. पिछले 12 महीनों के दौरान क्या आपको किसी डाक्टर या सेहत कर्मचारी के द्वारा बताया गया है कि आपको आगे लिखी बीमारियों में से कोई है? ()
 (a) डायबटीज की जानकारी (इतिहास) ()
 (b) उच्च सूनी दबाव की जानकारी (इतिहास) ()
 (c) पीठ दर्द ()
 (d) क्या आप पिछले दो सालों में कभी लगातार 3 महीनों तक बुरी खांसी से बीमार रहे हैं ()
 (e) कैंसर अगर हां, किस अंग का कैंसर कृपया बताएं ()
 25. क्या आपको लगता है कि आप लगातार दिमागी दबाव में रहते हैं। (हां-1, नहीं-2) ()
 25.(a) अगर इंस (घर की चिन्ता-1, कार्य स्थान की चिन्ता-2) ()
 उचाई - cm
 भार - kg
 कमर - cm

(आदमियों के लिए साधारण: <94 सेंमी. लिए : साधारण <80 सेंमी. : 80-88 सेंमी. उच्च रिस्क : > 88 सेंमी.)

बी.एम.आई () क.ग्रा/मी²

कम भार <18.5 साधारण 18.5-24.9, अधिक भर 25.0-29.9 ओबीस > 30

बल्ड प्रेशर Systolic..... Diastolic.....mm of Hg.

यह कार्यक्रम तथा पूछ-ताछ अधिकारी के बीच का हस्ताक्षर है कि जो भी जानकारी यहां प्रदान की गई है उसे गुप्त रखा जाए। यह जानकारी पूछ-ताछ अधिकारी के द्वारा सिर्फ स्कूली पढ़ाई के लिए ही इस्तेमाल की जाएगी तथा यह किसी और उद्देश्य के लिए इस्तेमाल नहीं की जाएगी या किसी और संस्था के साथ दफ्तरी या गुप्त रूप में बाटी नहीं जाएगी।

कार्यक्रम के हस्ताक्षर

पूछताछ अधिकारी



ANNEXURE V

Monitoring and Evaluation format

Activities / Months	1	2	3	4	5	6	7	8	9	10	11	12
Healthy workplace Committee formed												
Monthly meetings of healthy workplace committee held												
Action plan for one year												
Physical activity												
Written policy												
Physical Activity Calendar for 1 year												
Physical activity sessions (Stretch exercises)												
Nutrition and weight control												
Written /Verbal policy on healthy eating												
Availability of healthy food												
Alcohol and Drugs												
Policy on drugs and alcohol												
Smoking												
Anti smoking policy (Verbal/written)												
Display board for anti-smoking												
Stress and mental health												
Policy on stress and mental health												
Stress management session												
General Health												
Established policy on general health												
Medical or health officer												
Physical Environment- Safety												
Health and safety policy												
First Aid Facility												
NCD Risk Factor Surveillance												
No. of employees participated												
No. of health promotion sessions held												
No. of health promotion developed and distributed												
Grievance mechanism												
Miscellaneous (Training programs- occupational safety, first aid, personality development, eye check-up, ENT camps, etc)												



ANNEXURE VI

List of participants/Contributors for the workshop

Post Graduate Institute of Medical Education & Research PGIMER Chandigarh

Dr Binod Patro, Assistant Professor, School of Public Health(SPH)
Dr Gaurav Aggarwal, MPH Student, SPH
Dr JS Thakur, Associate Professor, SPH
Dr Manmeet Kaur, Assistant Professor
Dr Prabhu, Junior Resident, SPH
Dr Pramod Kumar, Assistant Professor, SPH
Dr Praveen Bhalla, MPH Student, SPH
Dr Puneet Bains, Project Officer, SPH
Dr Rajesh Kumar, Head, SPH
Dr Sanjay Wadhwa, Prof & Head, Dept. of Physiotherapy
Dr Sudha Khurana, Consultant Dietician
Dr Tanzin Dikid, Senior Resident, SPH
Dr. Yash Paul Sharma, Head, Dept. of Cardiology
M Prabha, Project Research Fellow, SPH
Prof Arun Rajwanshi, Head, Dept. of Cytology & Gynaec Pathology
Prof KK Talwar, Director, PGIMER
Prof.S.K Jindal, Head, Pulmonary Medicine

WHO India

Dr Cherian Varghese, NPO (NMH)
Dr Sitanshu Sekhar Kar, National Consultant, NMH

COEH (Centre for Occupational & Environmental Health)

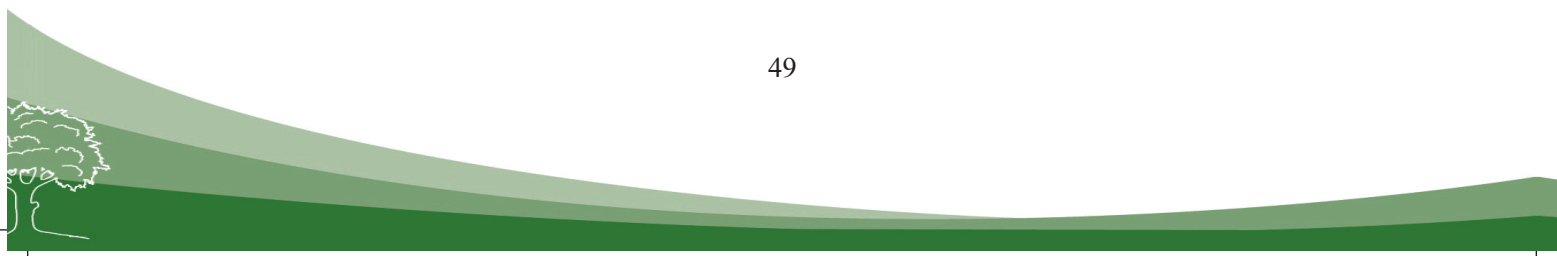
Dr TK Joshi, Member Secretary, COEH, Delhi

Indian Council for Medical Research

Dr Prashant Mathur (Assistant Director General, ICMR)

WORKPLACE COMMITTEE MEMBERS FROM INDUSTRY X

Mr Gurdeep Singh, Manager (Lab)
Mr Inderjeet Singh, Officer (HR)
Mr MS Dhaliwal, Vice President
Mr Sandeep Singh Toor, Manager (Production)



WORKPLACE COMMITTEE MEMBERS FROM INDUSTRY Z

Mr Jaskanwar, Manager (Transaction)

Mr Priyank Teji, Senior Engineer

Mr Shyam Sasmal, Executive

Mrs Kanika Taneja, Senior Executive

CII (Confederation of Indian Industries)

Dr Debasis Bhattacharaya Advisor-Health, CII, Delhi

Dr Ramnik Ahuja Advisor-Health, CII, Delhi

Mr Manmohan Singh, Convener- CSR Panel, CII Chd Council

Mr Nitin

Mrs Saryu Madra

ESI WING

Dr RS Sanna, Deputy Director, ESI, Haryana

Dr YC Markan, Director ESI, Punjab

STATE NCD PROGRAM, Chandigarh

Dr Deepak Bhatia (Nodal Officer, NPDCS & IDSP Punjab)

Dr Manjit Singh Bains, Director Health Services Union Territory, Chandigarh

OTHERS

BS Gill, General Secretary, INTUC, Chandigarh

Col Bindra, Director Programme Enablers, Panchkulla

Dr Amit Gupta, Ranbaxy Labs. Mohali

Dr HC Gera, State Nodal Officer, IDSP, Chandigarh

Dr Rajinder Sharma, Nodal Officer, NRHM, Chandigarh

Dr Satish Kapoor, Professor, University Business School, Panjab University, Chandigarh

RS Garg, President Industrial Cell BJP, Chandigarh

