

Implementing Health Programs in General Industry

Fernando Barboza



Fernando Barboza

- Industrial Engineer; Graduated in 1992, CSP
- Consultant HSE Manager, BLCS since 2016
- Previous positions: Chevron , Baker and Dresser Consolidated
- Location: Houston
- Have worked with HES programs for over 19 years as MCP/BU HES Team Leader, OH Global Upstream Advisor and HES Consultant for O&G, Refining, Manufactory and Construction.
- Outside Interest or Personal;
 - Family: Married with 2 kids (8 and 28 months)
 - Enjoy playing tennis and spending time with my family.
 - Unusual personal anecdote “If I wasn’t working in **HES**, I would probably still be a Service **Engineer**”! In fact, I started in HES during the oil crisis in 1997, when I was transferred to HSE and I continued that career path until now.



Topics

- › What's the "H" for the companies?
- › Organization/Structure
- › Occupational Hygiene
- › Fitness for Work
- › Ergonomic Programs
- › Medical
- › Tips for success

Employee's Health



FB	2009	6/12/10	1/15/11	7/7/11	2012	2013	05/01/14	Standard Range
Cholesterol, Total	300	153	270	240		210	221	100-199
Triglycerides	180	83	185	82		79	81	0-149
HDL Cholesterol	35	47	39	61		48	55	>39
Glucose							71	<200
LDL Cholesterol Calc	199	89	194	171		131	150**	0-99 (Goal less than 130)
Ratio							4:0	Average (Goal below 4.0)
Weight		144lbs	144lbs	143lbs		143lbs	143lbs	Normal

- What is your major health risk?
- Do you have high level of cholesterol values?

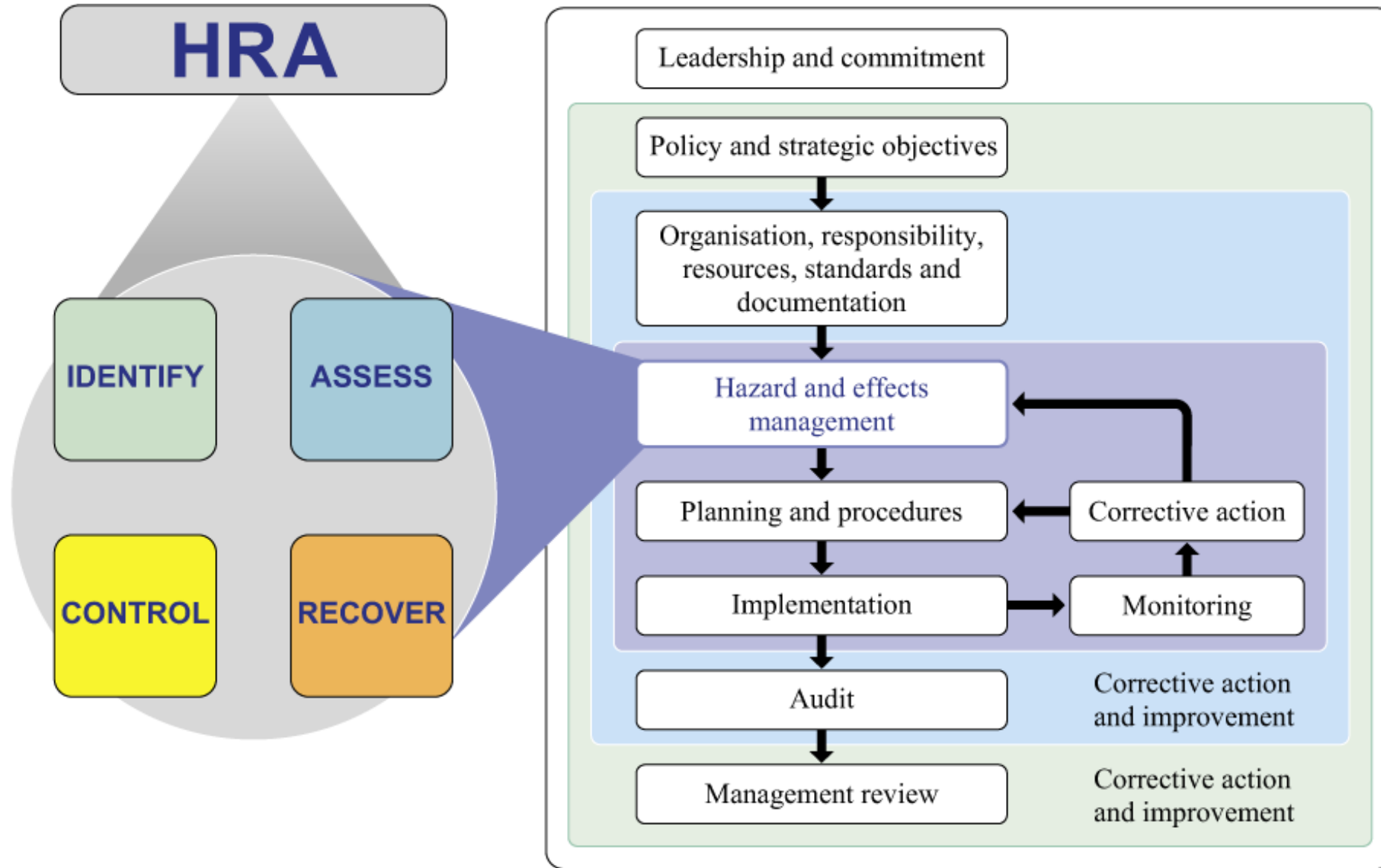
Health Departments

The responsibility of health departments is to protect and promote health, and prevent disease and injury— that is, services which are focused on improving the health status of the population

- Asses health needs
- Investigate health effects and hazards
- Analyze health hazard
- Promote health in the workplace and healthy lifestyles
- Policy Development
- Assurance (manage resources, structure, implement, evaluate, inform)



Health Risk Assessment

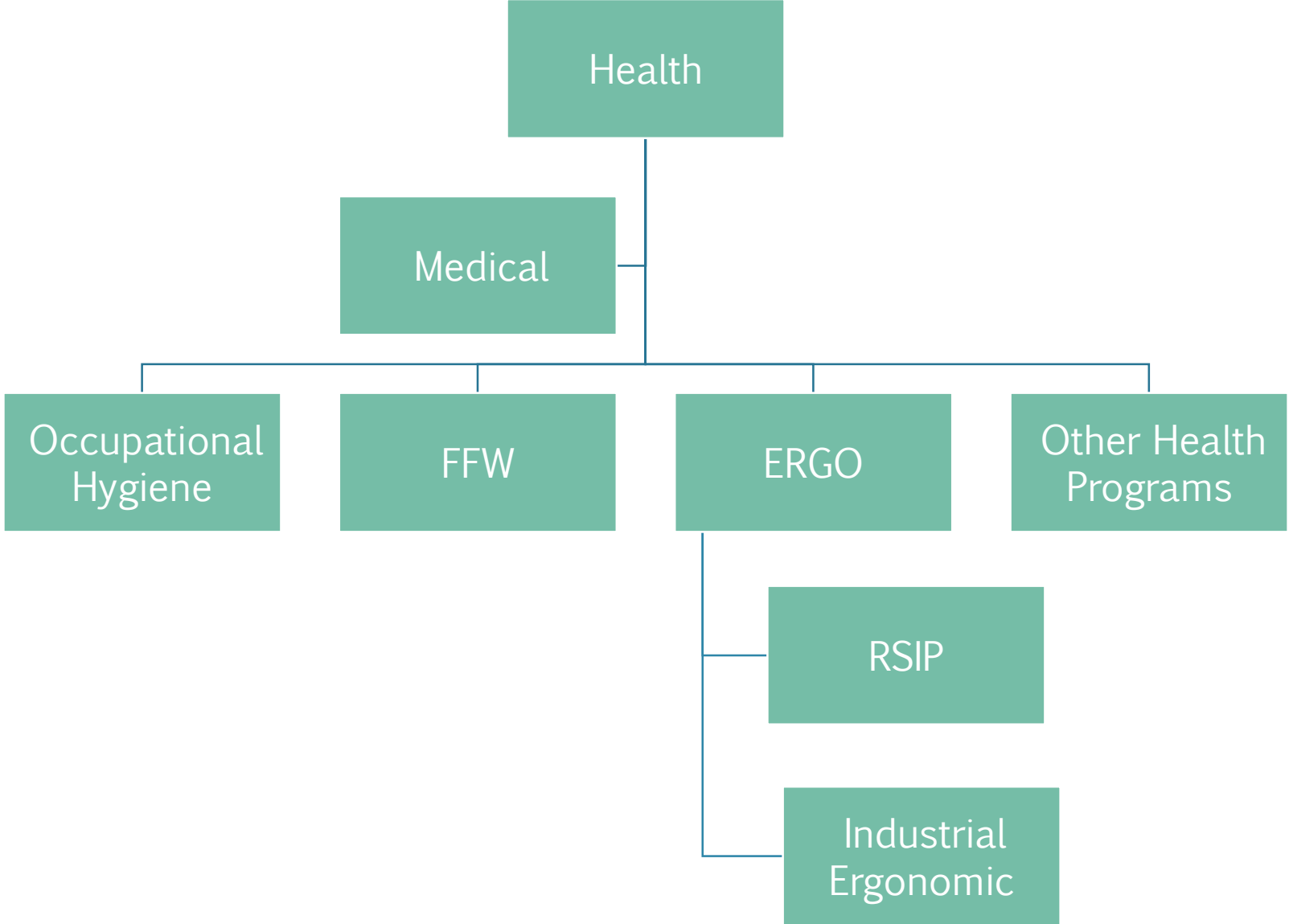


HRA Management System

Incorporating Health into an Organization



Health Programs



Occupational Hygiene (OH)

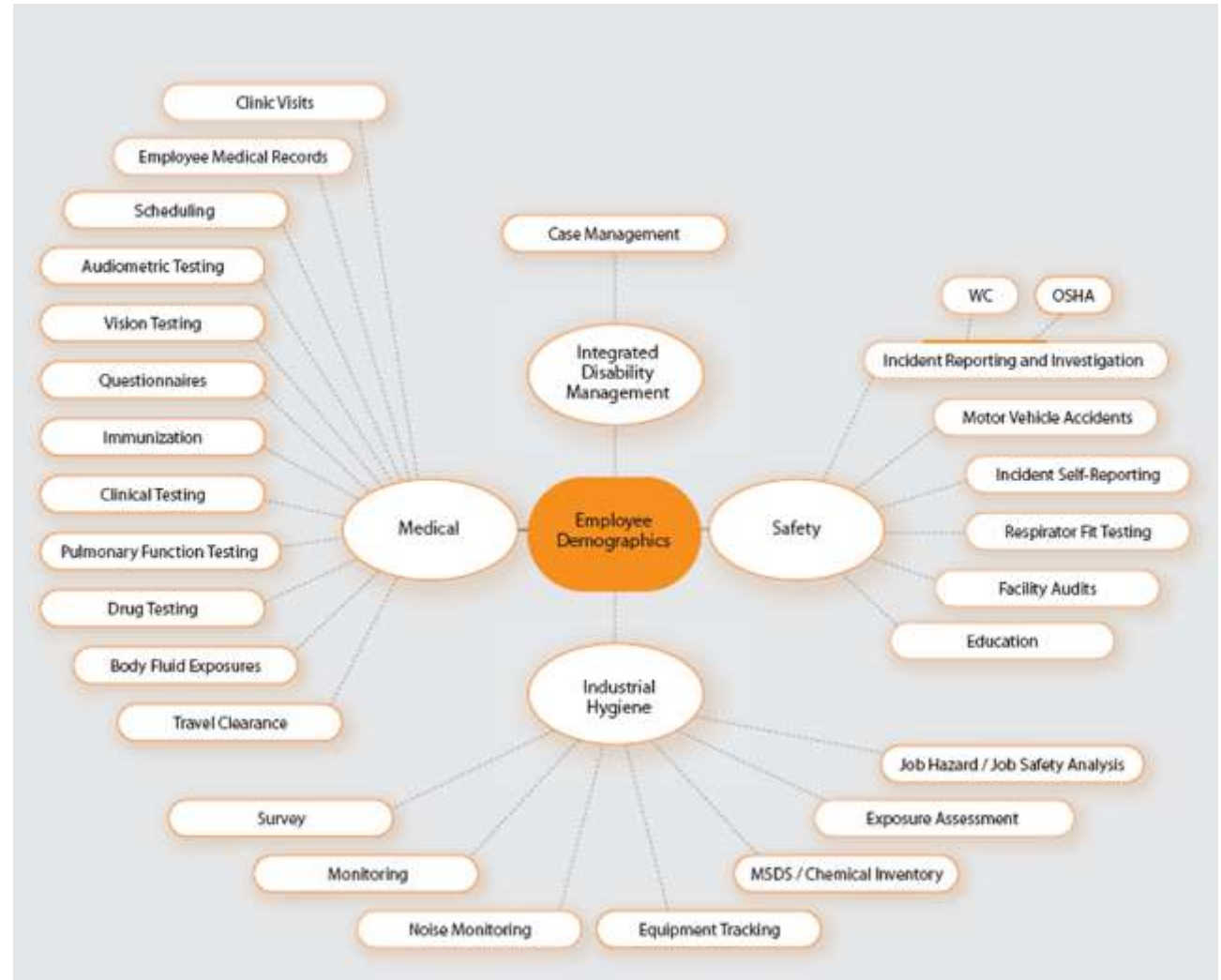
Purpose: Identifying, quantifying and control of exposure to health hazards coming from the work environment.

Typical Activities:

- Risk Assessment
- Data collection (Noise, VOC, Air Particles, Noise,etc)
- Exposure Assessment
 - Characterization and sample collection
 - Exposure Monitoring Plan
 - Data to send to Laboratory for analysis
- Statistical analysis and Identification of Work Exposure Profile (WEP)
- Identification of Controls
- Routine OH program critical groups (WEP)
- Interpretation of Regulations and Standards (OSHA/NIOSH)
- Link to Medical and Medical Surveillance
- Training



Equipment, Tools and Databases



OH Programs

Some of the common challenges

- Variety of OH approaches
- Occupational Hygiene competency is limited in the industry specially for uncommon agents
- Availability of accredited laboratories and timely transport of samples to laboratories is a challenge in international locations

Tips for Implementation:

- Strategy should focus first on critical agents
- Definition of WEP and standardization may reduce implementation time for multiple locations
- Define approach of using external consultant vs FTE
- Link to Medical Department using proper surveillance
- Use of IH/OH tools such as databases if highly recommended for large number of employees.



Fitness For Work (FFW)

Program design to ensure employees to safely **perform physical, psychological and cognitive** requirements of their job without risk to self, others or the environment.

Typically Activities:

- Identification of critical demand activities
- Designing of capacity demand protocol according position or work profiles.
- Physical capability tests or Functional Capacity Evaluation
- D&A program
- Fatigue
- Development of Medical Protocols
- Medical Evaluation. Pre employment, post accidents, and Post employment



Fitness For Work (FFW)

Challenge:

- FCE is not widely known in the general industry.
- Facilities for FCEs are limited, specially in international locations
- Use of FCE protocol in external clinic may be a challenge due to facilities limitations.
- The full implementation of FFW contractors/sub is limited due to limited resources in some companies.

Tips for Implementation

- Definition of FCE for similar groups and extend to similar positions.
- Identification of potential facilities for FCE, support local vendors, require use of protocols, etc.
- Work with contractors with specific expectations and include in the contract (Exhibit section).



Medical

Medical Evaluations, Protocols, Surveillance

- Professional Physicians and Clinics
- History and Physical
- Vision test
- Audiogram
- Pulmonary Function Test
- Other medical protocols depending on Job descriptions and work exposures.
- Highly demanding activities (ER, firefighters, etc)
- Use of Databases such as OHM Web and IH databases to track medical surveillance and identification of critical groups



Ergonomics

- **Repetitive Stress Injuries (RSIs)** typically found in office work stations (office/computer) but also in manufactory and other factory industries. (databases to ensure compliance).
- **Industrial Ergonomic** have a relevant importance while managing activities that affect human movement, either for equipment design or forces involved in the task.

TX DOT: In the past 5 years, employees sustained 482 sprain- or strain-related injuries. The results shown about 36% were of injuries related with back and muscular and approximately 30% of all injuries occurred during lifting/carrying.

- Implementation structure based on resources
- Ergo evaluators; FTE/Consultant
- Technical tool/software (Workpace/Wellnomic) if necessary
- Standing desk and ergo tools are becoming more popular and affordable



Ergonomics

Tips for Implementation:

- Implementation structure based on resources
- Leadership support and commitment
- Workstation evaluators; FTE/Consultant
- Technical tool/software (Workpace/Wellnomic) if necessary
- Standing desk and ergo tools are becoming more popular and affordable
- **Ergo exercises**; Use of **stretch and flex** programs in the general industry is becoming more popular to reduce muscular injuries such as lumbagos, sprains and others.

Proven results with over **40% reduction** in back/sprain and other muscular injuries cases.



Other Health and Wellness programs

- Cardiovascular programs
- EAP and Work-Life balance Services
- Websites for education purpose
- Other health and wellness programs and initiatives (fit bands, 4K, health fairs events, etc).
- **Fatigue Risk Management Programs**
- Food and Water Quality procedures
- Control of Certain Deceases and Flu season



Incorporating Health for a Company's success

blcs

- Leadership accountability model
- Structure approach- Health Management System
- Competence resources
 - OH professional –CIH, OH Technician, Consultant
 - Occupational Health Professional, MPH, etc
 - Medical department staff
- Track programs and measure implementation
 - Leading and Lagging Indicators for each program
- Use of resources (BPS) and tools for collaborations.
- Revise data and look for opportunities for improvement



Questions?