

## **Health Education and Wellness for EHS Practitioners!**

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In environmental health and safety we use and apply a variety of consistent principles to protect employees and others. We can use and apply the same principles to our organization's (and/or our own) wellness, health education, and health promotion programs (HPPs).

This paper (and the original conference presentation) is designed to provide EHS practitioners with 26 of these consistent principles for their use in their organization's (and/or their own) wellness, health education, and/or HPP. Each "principle" is listed and discussed from both the EHS and wellness perspectives. Examples are given (where applicable). The wellness principles are written in the second person (apparently to you the reader) but they are also meant to be conveyed to employees for their wellness. So, without further ado – on to the principles!

### **EHS: Do a walk-around survey to assess the situation**

One of the first steps in an EHS evaluation is to do a "walk-around survey" to assess the work process. We observe processes, workers, materials, equipment, and practices to assess the potential for hazards.

### **Wellness: Check yourself out**

In wellness we do the same – we take a look in the mirror. We ask ourselves, "What shape am I in? Do I have too much weight in my belly? What are *my* hazards to myself?"

### **EHS: Study your industry for trends and/or probable hazards**

We study the assembly lines, processes, etc. for the hazards inherent to them (e.g., perhaps musculoskeletal disorders (MSDs), etc.). The hazards of your industry are likely your organization's as well.

## **Wellness: Know your genes/heritage for diseases/health issues**

Study your family history (i.e., your parents, siblings, aunts/uncles, and children). It's a question that we all answer on the paperwork at our Doctor's office – "Has anyone in your immediate family had any of the following diseases?" Heart disease, hypertension, diabetes, cancers (a wide variety), etc. The list seems to go on – one after another organs/systems. The diseases of your family members are likely yours as well.

## **EHS: Get a 3<sup>rd</sup> party professional audit**

If we wish to objectively assess how we're doing with our organization's EHS one way to determine is to be audited. We solicit and get a 3<sup>rd</sup> party, independent audit. They'll give us an objective opinion on how we're doing with recommendations on where to focus our attention.

## **Wellness: Go see a Doctor and a fitness expert and/or get a Health Risk Analysis (HRA)**

Want to know how you're doing health-wise? Go see your doctor. You'll get an unvarnished viewpoint. In wellness and HPPs a baseline evaluation is the HRA. You get your weight, pulse, blood pressure, cholesterol, triglycerides, etc. as an independent assessment. It gives us a "starting point" to focus our attention for helping employees be healthy.

## **EHS: Do some monitoring/testing for toxic contaminants**

If we want to know how we're doing relative to healthy air, we test for a variety of hazardous chemicals – solvents and other volatile organic compounds (VOCs), metals and other inorganics, etc. We need to test to see what sorts of toxins we have in the workplace.

## **Wellness: Get your lab workup done**

If we want to know how we're doing relative to our health levels, we have to do some testing. We typically get a blood test for health parameters including HDL/LDL ratio, triglycerides, iron, glucose, etc.

## **EHS: Protect against carcinogens**

In EHS we strive to protect our workers from carcinogens such as asbestos, benzene, chlorinated hydrocarbons, etc. We know that we need to minimize exposures to carcinogens.

## **Wellness: Avoid cancer**

In wellness we also know to avoid factors that are associated with higher incidence rates of cancer. We advise others to quit smoking, lose weight, eat more veggies, and exercise. It's likely that if the same workers did the above from a wellness standpoint, it would do more to reduce cancer cases than our efforts regarding workplace exposures to carcinogens.

## **EHS: Read the lab results for understanding**

Let's face it – reading lab reports of workplace air monitoring is not a straight forward process for most workers. There are all sorts of chemicals vs. limits (OSHA PELs vs. ACGIH TLVs), bio-aerosols (mold) without standards, CO<sub>2</sub> levels regarding ventilation, etc. Workers need us to help them understand the results and the overall context for their health and any implications.

## **Wellness: Read the lab results for understanding**

Have you ever tried to read your lab report from a blood test? The different cholesterol and ratio, triglycerides, a complete blood count, etc. – they're all so just many numbers. We need the doctor (or health professional) to help us understand it, too.

## **EHS: Benchmark yourself to others**

If we want to see how our facility compares to others of a similar industry, we benchmark ourselves to others. We compare our “numbers” (e.g., incident rates, etc.) with other locations, companies, industry standards, etc.

## **Wellness: Calculate your BP, resting pulse, abdomen/waist ratio, BMI, % body fat, etc.**

If we want to see how we're doing health-wise, we need to look at our “numbers”. We need to know our numbers and compare them to acceptable standards for other healthy individuals. Is your BP >120/80? Is your pulse >72?

## **EHS: Anticipate, Recognize, Evaluate, and Control hazards**

The general precepts of IH are to anticipate, recognize, evaluate, and control health stressors in the workplace. We anticipate that on-going low level exposures lead to chronic health issues. We recognize certain chemicals and dusts. We can evaluate MSDs from repetitive movement processes, etc. We know how to implement effective controls.

## **Wellness: AREC diseases, too**

We can anticipate that in time we may develop cancer, CVD, (pre-)diabetes, hypertension, etc. from our lifestyle. We can recognize signs of disease (persistent cough for lung disease, significant belly fat for diabetes, etc.) We can evaluate these diseases (or rather a doctor can). We can take steps to control the disease as well (e.g., change our diet, exercise more, etc.)

## **EHS: Provide *effective* hazard communication**

PEL, TLV, IDLH, TWA, MW, FP, IP, VP, etc. It seems like there's a million different abbreviations and acronyms. You have to be able to read MSDSs, container labels, and other hazcom related information – and for understanding, too. OSHA requires *effective* hazcom training.

## **Wellness: Read labels**

Fats (omega-3s, saturated, mono-, poly-unsaturated, trans-fats, “partially hydrogenated”), whole grains vs. “refined” or “enriched” flour, daily values based on a 2000-calorie/day diet. There's a lot to try to understand about food these days. We're told that certain fats and carbs are bad for us – even hazardous. “Trans fat free” doesn't always mean that there is no trans fat in it (it has to do with <0.5 gram and rounding allowed by the FDA). We need to get *effective* education on food label reading.

## **EHS: Hierarchy of controls**

Eliminate, Substitute, Engineering, Administrative, and PPE. We all know, train others in, and implement the hierarchy of controls. It rolls right off our tongue. Do the first one(s) and you won't need (as much of) the latter ones.

## **Wellness: ESEAP, too!**

Eliminate “bad” fats and “junk” food, substitute “good” fats for bad and full-fat dairy for “lite” dairy, use sprayers/shakers/spritzers for fats, mix your own dressing, dunk it on the side, add more veggies to dishes, use smaller plates, dishes, and glasses, read/learn more. We can adapt and create our own “hierarchy of controls” from a wellness standpoint.

## **EHS: Understand the various applicable regulations and/or standards**

OSHA, EPA, FDA, DOT, DEP, CDC, ANSI, NFPA, ASTM, ACGIH, etc. There are all sorts of rules – federal and state regulations, standards organizations, EHS principles, etc. We spend our work lives striving to understand the implications of them all fully.

## **Wellness: Understand the rules of a healthy lifestyle**

We get the same wellness messages repeatedly: Don't smoke, eat less, be more active, enjoy a varied diet of healthy foods. There are "rules" and we can understand them and help others understand them better. Sometimes they change or seem to be in conflict and we need to keep up with the latest research and conventional wisdom.

## **EHS: Understand basic math and science of IH/EHS**

Algebra, biology, chemistry, geometry, physics, statistics, etc. If you're in IH/EHS, then you use math and science weekly if not daily in your work life. High school algebra actually does come in handy!

## **Wellness: Understand basic math and science of healthy life**

Calories in – calories out = weight  
Genetics + environment = health

Math and science apply just as much to wellness as well. There are equations (see above). There is much medical science that goes into wellness recommendations – double-blind controlled studies for instance. We have to understand, show value for, and explain the science to others we help protect.

## **EHS: Incentives may or may not work**

There's much debate regarding incentives. All sorts of types and programs with questionable effectiveness. Problems include non-reporting of incidents, seeing one's own doctor, peer-pressure, etc.

## **Wellness: Incentives fail to motivate us consistently**

We've all tried to make healthy changes, only to have them fail after a while. Most of us have tried different things with less than stellar results. New Year's Resolutions gone bust, Yo-Yo

dieting, diet of the month, tiring of workouts/equipment, resolutions, etc. There is much debate about what works and what doesn't in wellness, too.

### **EHS: Behavior-based safety (BBS) requires work, commitment, training, help**

BBS is not an easy program to successfully implement. Training, time, money, resources, production are all factors for BBS. It can be very difficult and frustrating trying to "motivate" workers regarding a BBS program.

### **Wellness: Only real motivation is from within one's self**

Motivation is an elusive trait. What works for one doesn't work for another. The saying "Different strokes for different folks" applies quite well. We can understand it but to facilitate it in others is not so easy.

### **EHS: It may take a while to see any benefits ... and you may lose temporary gains if you stop**

The benefits of even a proper EHS program usually don't show benefits right away. Ergonomics, BBS, committees/teams, etc. all take a while for differences to become apparent. Worse yet, if folks "slack off" on attention to an EHS program, benefits slip away.

### **Wellness: It may take a while to see any benefits...and you may lose temporary gains if you stop**

Wellness is a lifestyle. The word "diet" is usually thought of as temporary. Once stopped, results slip away. Diet/exercise and weight control, lower BP, etc. all take time to have a measurable effect. We need to adopt "lifestyle" changes for benefits to show as well.

### **EHS: Don't change everything all at once**

As EHS professionals we know better than to try to change several programs at the same time. We typically "roll out" one EHS program at a time. If we were to attempt to change the company's processes, controls, practices, PPE, etc. all at once, chaos would be the only thing we'd likely accomplish.

## **Wellness: Make gradual changes and change only one thing at a time (that is “doable”)**

Ever know someone who tries to change all sorts of aspects of their lifestyle at once? Likely they were not successful and reverted back to their old ways quickly. Behaviorists say that it's easiest to change one thing at a time and to do it gradually. This is intuitive, too. So instead of changing all full-fat dairy in your life to lite all at once, try just changing milk and doing it gradually – go from whole to 2% to 1.5% to 1% to 0.5%, and finally to skim.

## **EHS: Off-the-shelf stuff may not work – you may need to “customize” it to fit**

Most EHS professionals realize that a “canned” program or training won't work – it must be customized to fit ones organization. For instance a LOTO station may not come equipped with all of the “right” devices.

## **Wellness: Off-the-shelf products may not work – you may need to “customize” them to fit**

Similarly wellness initiatives may not fit every person the same – they often need to be customized. Every fitness program will not fit every person – they are not at all “one size fits all”. They each must be tailored to the individual's needs, goals, lifestyle, etc.

## **EHS: Measure on-going progress**

If we wish to evaluate how we're doing we have to measure our progress. We compare our lost time, incidents, mod rate, etc. to our baseline where we started. If we see sufficient progress we keep at it. We're encouraged and management keeps up their much-needed support.

## **Wellness: Measure on-going progress**

If you try to keep at a new lifestyle change for the better, you need to see progress to keep at it. Whether it's your weight, BMI, measurements, work outs, BP, resting pulse, perceived effort, VO2 max, etc., you need to measure your progress and that encourages you to continue.

## **EHS: Post reminder signs**

We have to put up certain warning signs advising workers of the hazards in an area, process, or equipment. We also often post signs that instruct workers on PPE, safe practices, etc. Lastly we might hang signs to help “motivate” workers to be safe.

## **Wellness: Put up reinforcements**

There are many “motivators” we can post to help us stay on target. Pictures (e.g., us “before”, our family to be around longer, etc.), reminders, progress, encouragements – they all help motivate us and keep us “focused”.

## **EHS: Must keep at it all the time**

We can’t let our guard down lest our EHS program collapse! EHS requires that we stay focused, keep at it, maintain attention to it, etc.

## **Wellness: Must make “lifestyle” changes**

In wellness we know that short-term changes don’t work – only permanent lifestyle changes that are sustainable work. It’s about our entire lives – not about our “this month”.

## **EHS: Little things (and lots of them) matter**

In a company’s overall EHS program even changes to each of the various programs will equate to a significant improvement. Exposures, hazardous wastes, LOTO, BBPs, PPE, etc. Make enough changes to each and reap the rewards of the overall program.

## **Wellness: Little changes (and lots of them) can make a significant difference**

In our own lives we can also make several subtle changes that when added up equate to a significant improvement. They’re called “stealth health”. We can use less (and lite) mayo or use mustard instead, add less sugar/cream in coffee, mix healthier cereal in with our regular one. Take the stairs instead of the escalator or the elevator (for just a few floors). All of these make a small but real difference that when put together add up to significant improvements.

## **EHS: Work on the basics before doing more advanced**

In trying to bring a company to the point of world-class EHS performance, mere compliance must come first. Then one can work on safety culture, BBS, go for VPP status, etc. It’s a slow but sure progression.

## **Wellness: Work on the basics before doing more advanced**

It’s the old saying “You have to learn how to walk first before you learn how to run.” So walk - walk for 10, 20, 30 or more minutes. Try a “fun run”. Then a 5K, 10K, half and full marathons,



etc. Bike, run, swim. Try a “sprint” triathlon, then an Olympic distance, half Ironman and full Ironman! Do a bit, then some, then more, then some more. You can’t wake up and say “I think I’ll run a marathon today” if you haven’t trained for it. But you can wake up and say, “Today I start training for a marathon – I’ll run/walk 3 miles to start.” Just do it.

## **EHS: Even a company set in its ways can change and improve**

We all know plenty of examples of companies that have turned around their EHS programs. In Maine I know a few – Boise, BIW, Cianbro, G+E Roofing, etc. They all went through a fundamental shift. They all started caring more about their workers – it was value-based.

## **Wellness: Even a person set in their ways can change and improve**

The world is full of folks who have changed. My Mom quit smoking and my Dad quit drinking. I started doing triathlons at age 41. Ethel Autorino, age 70, holds world record IM triathlon for 70-74 year olds set in 2000 – 15:19:20!!! How’s that for a hero, mentor, or idol?

## **EHS: Know the pieces of PPE and how they work**

Respirators, harnesses, level A suits, etc. There are a lot of EHS equipment and they’re not that easy to figure out. We have to know them each and be able to teach them each to our workers.

## **Wellness: Know what a portion is and how much you eat**

There are a lot of “pieces” to wellness, too. Portions are not necessarily what is served on our plates at home and forget about what restaurants think a portion is these days. In actuality 3 oz meat = deck of cards, dishes/cups have all gotten more “grande”, closed fist = pasta/rice serving, bottle of soda might say “2 servings” when we know it’s one to most folk.

## **EHS: There are many (false) roadblocks/excuses to EHS**

We’ve heard them all – it takes too much time, cuts into production, costs us money, it’s too complex, etc. All are false though they’re often believed as the myths that they are.

## **Wellness: There are many (false) roadblocks/excuses to health**

Listen to the typical excuses – I have no time, it costs too much, work gets in the way, it doesn’t work, foods taste lousy, etc. Sound familiar? They should – we’ve all heard them before. They’re all false – just look at others who have done it despite the time, cost, work, etc.

## **EHS: There's a lot of misinformation and confusion**

It's hard enough teaching the workers and management the truths about EHS without having to deal with the myths. Internet hoaxes, OSHA myths, unscientific studies, mis-citing of regulations – they all contribute to making our jobs promoting EHS that much more difficult. Yet we persist in trying to promote EHS anyway – because it matters to their safety and health.

## **Wellness: There are many false claims and “quackery”**

We're all bombarded by all sort of false claims (try watching TV really late or really early). “Miracle” weight loss, “6-pack” abs using electrical stimulation, supplements that don't have what they're supposed to and/or do have what they're not supposed to, etc. If it sounds too good to be true, it probably is. We have to help others understand what is real and works and what is false and doesn't anyway – because it matters to their well-being.

Well, that's 26 principles to apply in the workplace and for everyone's improved wellness! Be safe, be healthy, be well!