

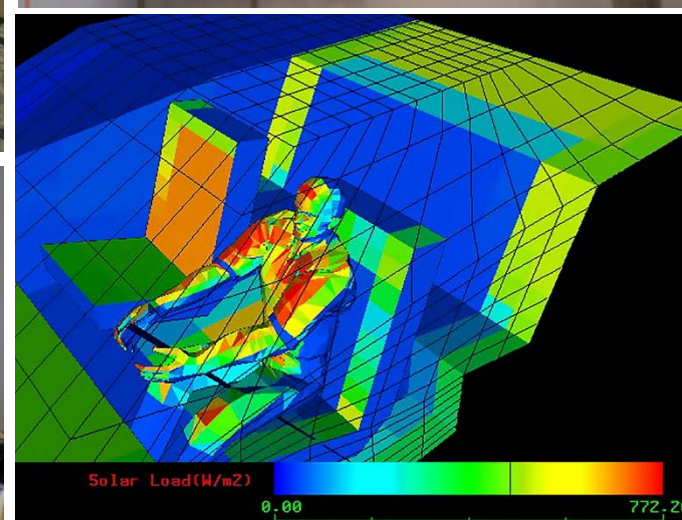
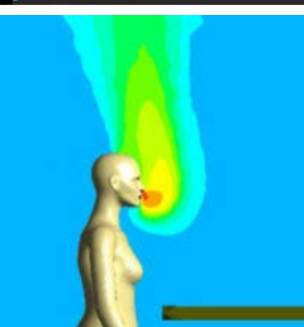
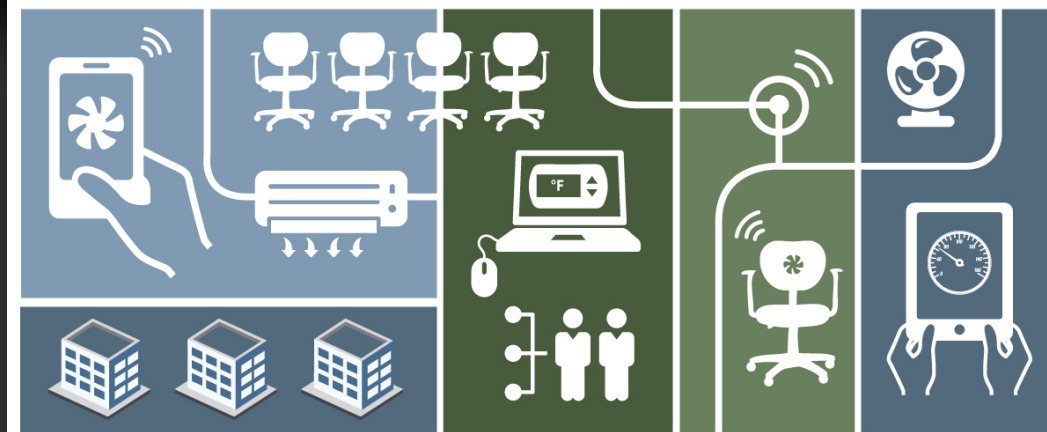


# Putting Health and Wellbeing Research Findings into Practice

Mara Baum AIA, LEED Fellow, EDAC, WELL AP, Fitwel Ambassador  
Sustainable Design Leader, Health and Wellness, HOK







1. Did a university or research institution play a significant role?
2. Did any of the research funders/leaders have a financial stake in outcomes?
3. Are the methods transparent?
4. Does it make sense? (Did the researchers directly address potential confounding factors? Is causality logical?)
5. Is it applicable to my project?
6. Is it repeatable?



# HEALTHY OFFICES RESEARCH AT A GLANCE

People function and perform significantly better in a healthy work environment. It also makes people more aware of their health and it inspires them to live healthier at home.

## CBRE HEALTHY OFFICES RESEARCH

UNIVERSITY OF TWENTE IN  
COLLABORATION WITH CBRE

124 PARTICIPANTS

5 RESEARCH METHODS

7 MONTHS

GROUNDBREAKING

MULTIDISCIPLINARY  
STUDY

> 100,000  
DATA POINTS



Improved performance  
(based on objective experiment)



Improved performance  
(based on interviews)



Percentage of participant  
who felt more energised



Percentage of participant  
who felt happier








Percentage of participant  
who felt healthier

	NATURAL SPACE	MORE PLANTS ON THE WORK FLOOR	+10%	+10%	76%	78%	65%
	RIGHT LIGHTING	CIRCADIAN LIGHTING	+12%	+18%	71%	76%	50%
	HEALTHY NUTRITION	HEALTHY ALTERNATIVES TO SUGAR AND CAFFEINE	+45%	+20%	78%	66%	52%
	MENTAL BALANCE	MEDITATION, YOGA, POWERNAPS AND MESSAGES AT WORK	+30%	+16%	66%	63%	53%
	PHYSICAL EXERCISE	LESS SITTING DOWN, MORE EXERCISE	+12%	+11%	65%	36%	71%

*“The Snowball Effect of Healthy Offices” - Univ. of Twente, VU Amsterdam & CBRE*  
<https://cbrenl.uberflip.com/i/823602>

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## **Ways to Gain ROI by Implementing an IAQ Strategy**

Implementing an IAQ strategy won't cost you an arm and a leg. Not having one might.

Sorry for the harsh introduction but sometimes you just need some tough love.

So let's start with some facts. According to the US Environmental Agency, the economic loss due to poor indoor air quality was in the "tens of billions" of dollars per year. Yes billions with a b! Did you know that improving some aspects of your building ventilation can improve work performance by \$600 per worker? Well now you know. Enough with the statistics, let's focus on the positive and discuss how you can gain ROI with an IAQ strategy.

**GIMME THAT ROI**



**CAUTION**

**WORK IN  
PROGRESS**

EU20456

EURO SIGNS and SAFETY 

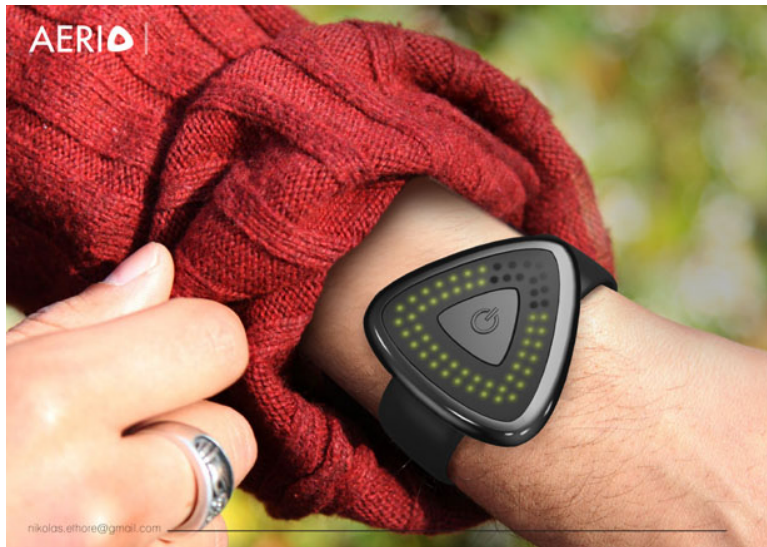


# Lesson Learned #1: Be open to unexpected outcomes.



## Lesson Learned #2: Be prepared to deal with lawyers.







# Lesson Learned #3: All data is not created equal.

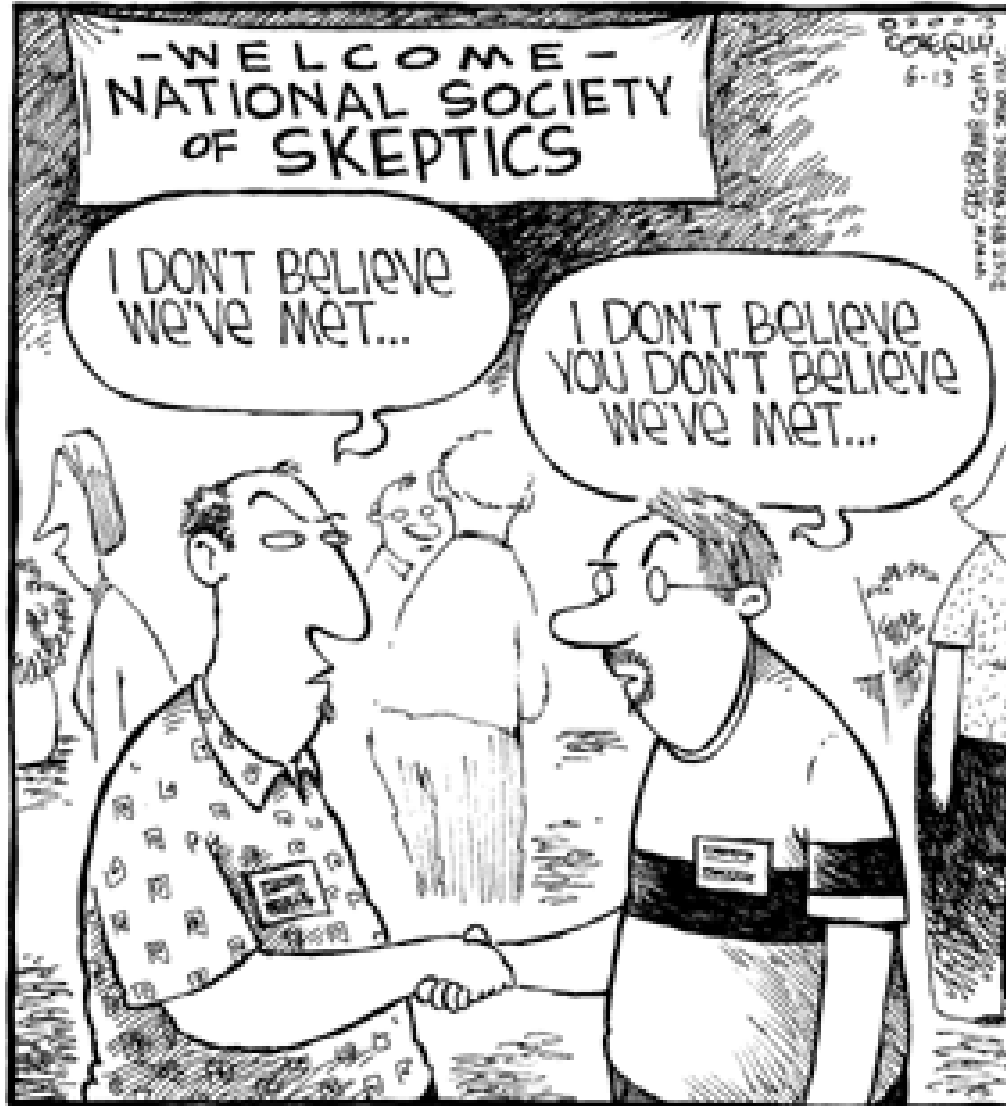


# Lesson Learned #4: Everyone wants finite financial costs and benefits



## Lesson Learned #5: Be prepared for skeptics and frustration.

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NOW

# Understand occupant view corridors





# Address circadian rhythm in lighting design

Brightest whites in the morning

Neutral in the afternoon

Warm in the evenings





Continuous monitoring and smart buildings:  
Start with what is most important to you /  
your client.





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[mara.baum@hok.com](mailto:mara.baum@hok.com)