

**NICE TO MEET YOU** 

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# WELL IS FOR PEOPLE





# We spend approximately 90% of our time indoors, and our environment is the largest determinant of our overall health.







That means our health begins at home – and at work, and in all of the spaces we frequent on a daily basis.



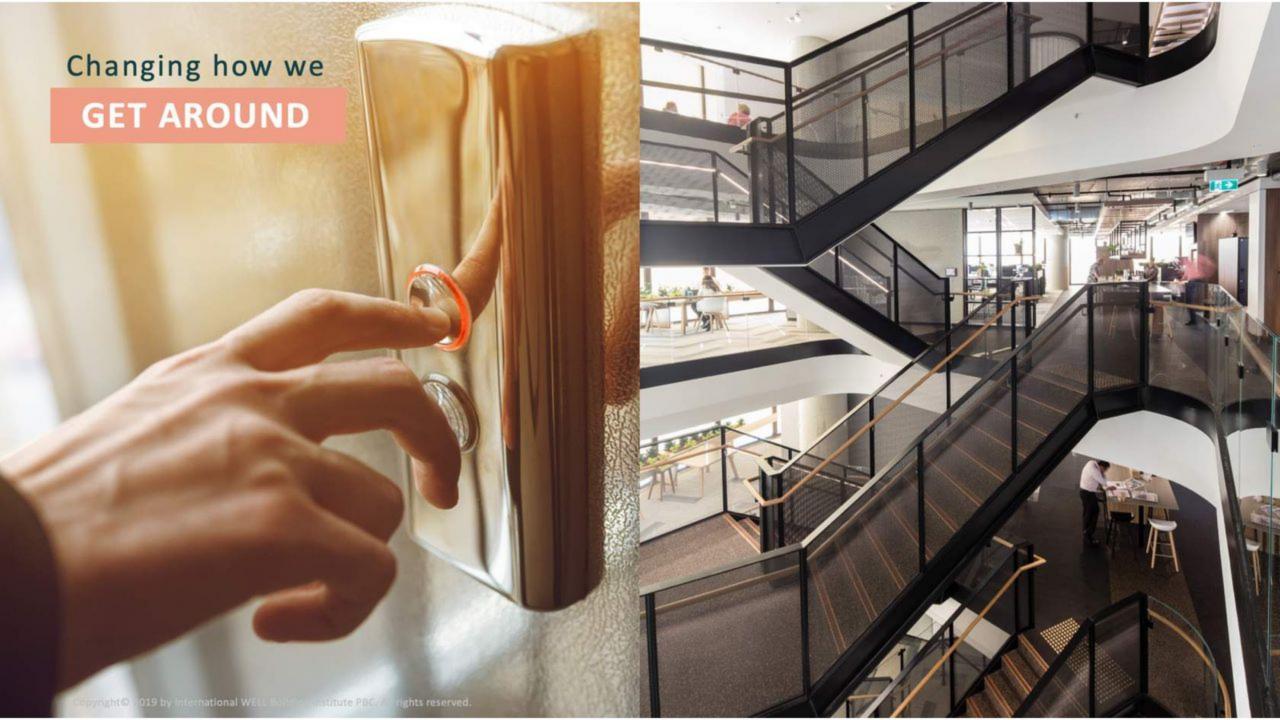
# Changing

# **VIEWS**











# WHAT DETERMINES THE STATE OF HEALTH?



THE ULTIMATE
GOAL OF OUR
BUILDINGS &
COMMUNITIES:

TO CREATE A
POSITIVE HUMAN
EXPERIENCE.



# INVEST IN PEOPLE FOR RETURN ON INVESTMENT



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# BETTER BUILDINGS ARE WELL



#### **OUR STANDARD**

The premier global standard for healthy buildings.



#### YOUR COMMUNITY

Join the movement with the WELL AP credential.



# BETTER BUILDINGS

WELL positions building design and operations as agents of public health.

WELL measures, verifies and monitors building features that impact health and well-being.





## DEVELOPMENT OF WELL









2014

IWBI launches the WELL

Building Standard<sup>TM</sup> after a
six-year, expert peer review
process that spanned three
phases: scientist, practitioner
and medical.

2017

With the debut of the WELL
Community Standard<sup>TM</sup> pilot,
IWBI expanded its scope to set a
new global benchmark for
healthy communities at the
district-scale.

2018

Condensing learnings from WELL users, project outcomes and the latest research, IWBI rolls out the WELL v2<sup>TM</sup> pilot. The next version of WELL represents a new paradigm for supporting human health through better buildings.

# WELL IS HOLISTIC



## WELL AT WORK

15%

Average participation in corporate wellness offerings

100%

Participation in a WELL
Certified space

HEALTH IS A STATE
OF COMPLETE
PHYSICAL, MENTAL,
AND SOCIAL WELLBEING, AND NOT
MERELY THE ABSENCE
OF DISEASE OR
INFIRMITY.

-The World Health Organization



# A COMPREHENSIVE APPROACH TO **WELL**-BEING















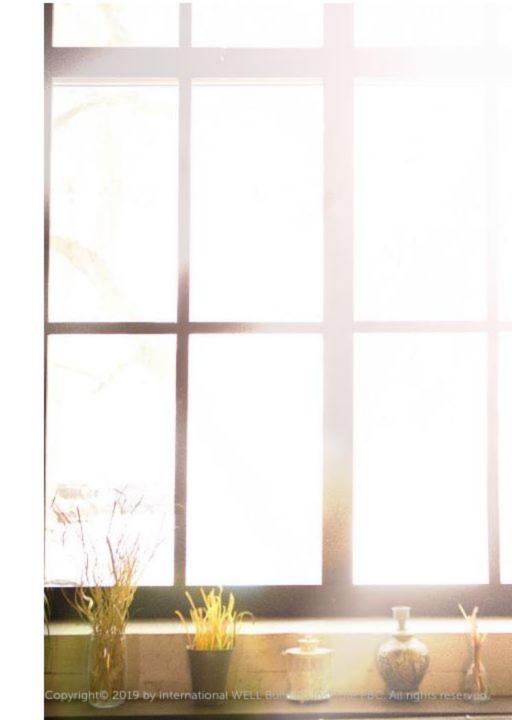








In the most recent Global Burden of Disease study, household air pollution was rated as the tenth most important cause of ill health for the world's population.<sup>1</sup>



Lim SS, Vos T, Flaxman AD, et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet (London, England). 2012;380(9859):2224-2260. doi:10.1016/S0140-6736(12)61766-8.



### Experience high-level indoor air quality across a building's lifetime.

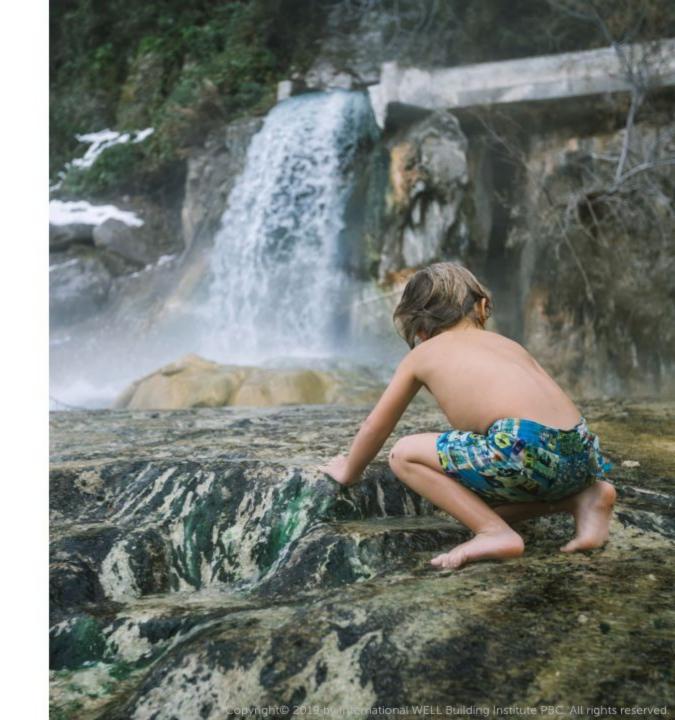
- Performance metrics
- Ventilation and operable windows
- Filtration
- Construction pollution management

- Source of concern protection
- Smoking ban
- Maintenance and operations
- Microbe and mold control



People who mistrust the safety of their water can be more likely to have lower intake of water and higher intake of sugar-sweetened beverages.

 Onufrak SJ, Park S, Sharkey JR. The Relationship of Perceptions of Tap Water Safety with Intake of Sugar Sweetened Beverages and Plain Water among U.S. Adults. Public Heal Nutr. 2015;17(1):179-185. doi:10.1017/S1368980012004600.





### Access to high quality drinking water and water management.

- Performance metrics
- Legionella control
- Treatment

- Drinking water promotion
- Moisture management
- Handwashing





Poor diets are the second-leading risk factor for mortality and morbidity globally, accounting for 8% of all deaths and contributing to an estimated 9.6% of the global burden of disease.<sup>1</sup>

 Gakidou E, Afshin A, Abajobir AA, et al. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990-2016: A systematic analysis for the Global Burden of Disease Study 2016. Lancet. 2017;390(10100):1345-1422. doi:10.1016/S0140-6736(17)32366-8



Encourage better eating habits by creating food environments where the healthiest choice is the easiest choice.

- Fruits and vegetables
- Nutritional transparency
- Ingredient restrictions
- Portion management
- · Accommodating special diets

- Food advertising and education
- Mindful eating spaces
- Food preparation guidelines
- Food production and sourcing





Disruption or desynchronization of the body's circadian rhythm has been linked with obesity, diabetes, depression and metabolic disorders.<sup>1-6</sup>

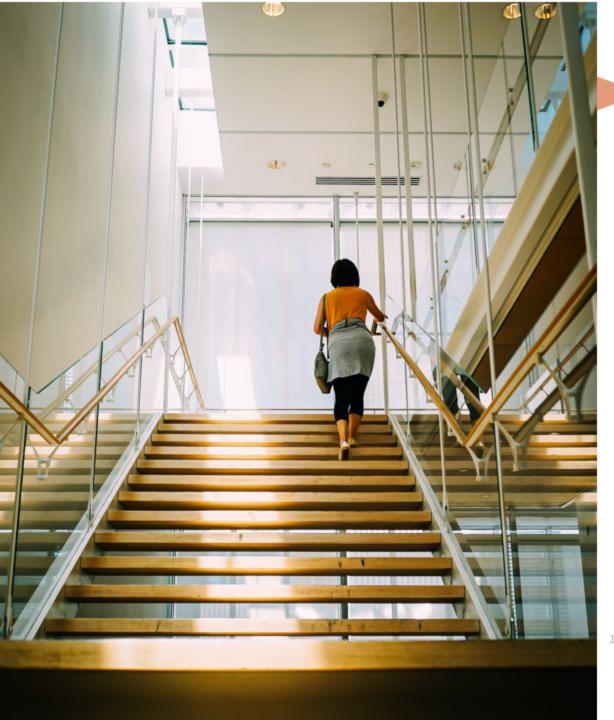
- Cho Y, Ryu SH, Lee BR, Kim KH, Lee E, Choi J. Effects of artificial light at night on human health: A literature review of observational and experimental studies applied to exposure assessment. Chronobiol Int. 2015;32(9):1294-1310. doi:10.3109/07420528.2015.1073158.
- Challet E, Kalsbeek A. Circadian Rhythms and Metabolism.; 2017. doi:10.3389/978-2-88945-282-8
- Plano SA, Casiraghi LP, García Moro P, Paladino N. Golombek DA, Chiesa JJ. Circadian and Metabolic Effects of Light: Implications in Weight Homeostasis and Health. Front Neurol. 2017;8:558: doi:10.3389/fneur.2017.00558
- Fonken LK, Nelson RJ. The effects of light at night on circadian clocks and metabolism, Endocr Rev. 2014;35(4):648-670. doi:10.1210/er.2013-1051.
- Boyce P, Barriball E. Circadian rhythms and depression. Aust Fam Physician. 2010;39(5):307-310. doi:10.1136/bmi.2.5961.3.
- Germain A, Kupfer DJ. Circadian rhythm disturbances in depression. Hum Psychopharmacol. 2008;23(7):571– 585. doi:10.1002/hup.964.



Benefit from daylight and lighting systems designed to increase alertness, enhance experience and promote sleep.

- Occupant controls
- Visual acuity
- Circadian lighting design
- Glare control

- Daylighting access
- Visual balance
- Light quality
- Light exposure and education





Data from 146 countries representing about 93% of the global population, shows that nearly a quarter of the adult population are physically inactive.<sup>1</sup>

Sallis JF, Bull F, Guthold R, et al. Progress in physical activity over the Olympic quadrennium. Lancet. 2017;388(10051):1325-1336. doi:10.1016/S0140-6736(16)30581-5



Promote active living through environmental design strategies, policies and programs.

- Active buildings and communities
- Ergonomics
- Active furnishings
- Movement and circulation
- · Active commuting

- Site planning and selection
- Physical activity space
- Physical activity promotion
- Self-monitoring



Thermal comfort is ranked as one of the highest contributing factors influencing overall satisfaction in buildings.<sup>1</sup>

 Frontczak, Monica, Stefano Schiavon, John Goings, Edwards A. Arens, Hui Zhang, and Pawel Wargocki (2012). Quantitative relationships between occupant satisfaction and satisfaction aspects of indoor environmental quality and building design. Indoor Air, 22(2), 119-31.https://doi.org/10.1111/j.1600-0668.2011.00745.x.





Maximize your productivity through improved HVAC system design and by meeting thermal preferences.

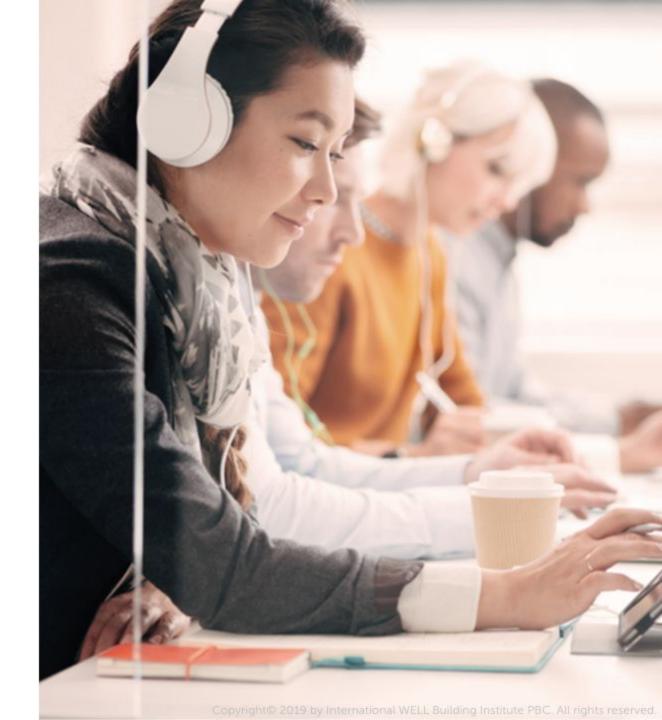
- Performance metrics
- Thermal zoning
- Individual controls

- Radiant thermal comfort
- · Ongoing monitoring
- Humidity control



Sound within an enclosed space from sources such as HVAC equipment, appliances and other people has been shown to hinder productivity, focus, memory retention and mental arithmetic.<sup>1-7</sup>

- Belojević G, Ohrström E, Rylander R. Effects of noise on mental performance with regard to subjective noise sensitivity. Int Arch Occup Environ Health. 1992;64(4):293-301. doi:10.1007/BF00378288
- Hedge A. The open-plan office: A Systematic Investigation of Employee Reactions to Their Work Environment. Environ Behav. 1982;14(5):519-542. doi:10.1177/0013916582145002
- 3 Gensler What we've learned about focus in the workplace, 2012.
- The American Society of Heating Refrigerating and Air-Conditioning Engineers, Chapter 48. Noise and Vibration Control. ASHRAE Handb HVAC Appl. 2009;(1):1-28.
- Jones DM, Miles C, Page J. Disruption of proofreading by irrelevant speech: Effects of attention, arousal or memory? Appl Cogn Psychol. 1990;4(2):89-108. doi:10.1002/acp.2350040203
- Söderlund, Göran BW, Sverker Sikström, Jan M Loftesnes EJS-B. Behavioral and Brain Functions The effects of background white noise on memory performance in inattentive school children. Behav Brain Funct. 2010;1-10. doi:10.1186/1744-9081-6-55
- Lercher P, Evans GW, Meis M. Ambient noise and cognitive processes among primary schoolchildren. Environ Behav. 2003;35(6):725-735. doi:10.1177/0013916503256260





#### Improve your experience with optimal acoustical comfort parameters.

- Performance metrics
- Mapping
- Barriers

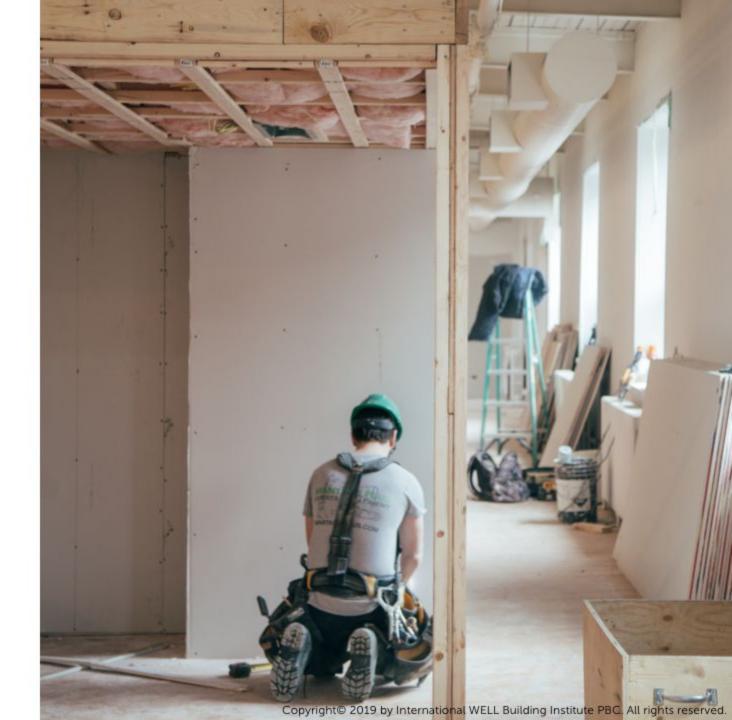
- Absorption
- Masking

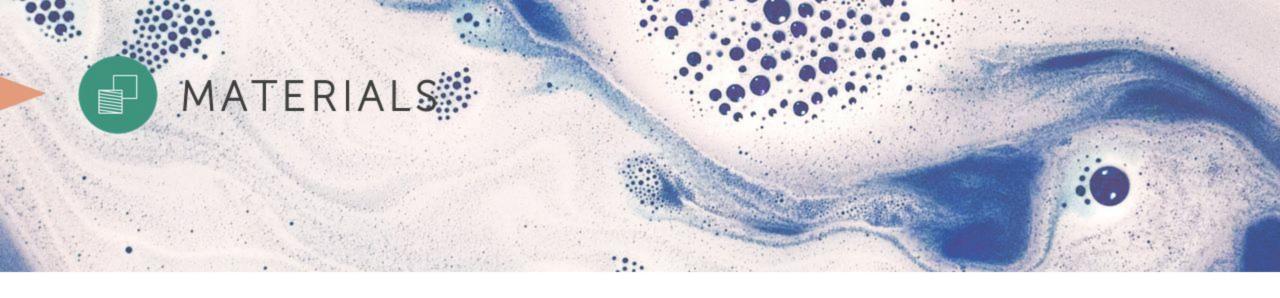


#### THE ISSUE

An estimated 95% of chemicals largely used in construction lack sufficient data on health impacts.<sup>1</sup>

 Pacheco-Torgal F, Jalali S, Fucic A. Toxicity of Building Materials. Sawston, Cambridge: Woodhead Publishing Limited; 2012.

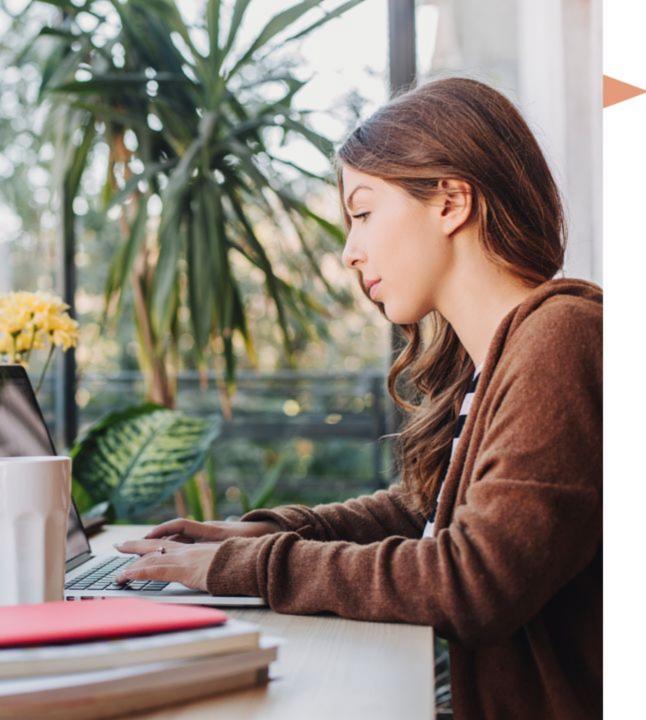




#### Reduce human exposure to hazardous building materials.

- Lead, Asbestos, PCB and Mercury safety
- Outdoor structures
- Waste management
- Site remediation
- Pesticide use

- Cleaning products and protocols
- VOC reduction
- Long-term emission control
- Enhanced material precautions
- Material transparency





#### THE ISSUE

Over 30% of adults will experience a mental health condition during their lifetime. Depression alone is the single largest contributor to global disability.

Steel Z, Marnane C, Iranpour C, Chey T, Jackson JW, Patel V, et al. The global prevalence of common mental disorders: a systematic review and meta-analysis 1980–2013. International Journal of Epidemiology 2014; 43(2):476–93. doi: 10.1093/ije/dyu038 PMID: 24648481

World Health Organization. Depression and Other Common Mental Disorders: Global Health Estimates, Geneva: World Health Organization; 2017. http://apps.who.int/iris/bitstream/handle/10665/254610/WHOMSD?sequence=1



Support cognitive and emotional health through design, technology and treatment strategies.

- Access to nature
- Focus support
- Sleep support
- Business travel

- Tobacco prevention and cessation
- Substance use education and service
- Opioid emergency response plan





#### THE ISSUE

Many people around the world still struggle with access to basic health services, and access varies based factors including ethnicity, gender identity, disability status and residential location.<sup>1</sup>

The design and function of built spaces can contribute to health disparities. Yet many environments are not designed with consideration of people with diverse abilities and priorities.

U.S. Department of Health and Human Services. Access to Health Services. Healthy People 2020. https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services.



Establish inclusive, integrated community through social equity, civic engagement and accessible design.

- Community immunity
- New parent and family support
- New mother support
- Civic engagement
- Organizational transparency

- Accessible and universal design
- Bathroom accommodations
- Emergency preparedness
- Community access and engagement

## LIVING WELL: MULTIFAMILY RESIDENTIAL

#### FOR RESIDENTS

- Health-focused environment
- · Positive impact on health
- · Improved energy and quality of sleep

#### FOR PROPERTY

- · Recognition and market differentiation
- · Increase in value



# THE WELL COMMUNITY STANDARD™ PILOT

The premier global standard for supporting health and well-being through inclusive, integrated and resilient communities.



### ENTERPRISE COMMUNITY PARTNERS & IWBI

#### ADVANCING HEALTH THROUGH AFFORDABLE HOUSING



Creating a streamlined criteria, blending planetary and human health strategies into a single framework for affordable housing.





# THE GLOBAL WELL MOVEMENT



3,824
WELL PROJECTS

456MM SQUARE FEET

58
COUNTRIES

9,056
WELL APs

