

Movement towards Designing for Health and wellbeing in the MENA Region

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The discussions around healthy buildings have increased noticeably over the last 3-5 years. In the hot, arid climate of the MENA region, the majority of our time is spent indoors, whether in offices, homes or commercial buildings. It is therefore of great importance to plan and design the indoor environment with comfort and wellness in mind, in addition to the creation of spaces that promote outdoor activities when possible. Creating an environment that nurtures our health and wellness, especially for more sensitive and vulnerable users such as young children and individuals with chronic illnesses, is a necessity not a luxury. As such, there is a big movement towards the promotion of improved Indoor Environmental Quality (IEQ). IEQ benchmarks the quality of the built environment and addresses many factors including lighting, air quality, water quality, thermal comfort, acoustics and ergonomics. In the Middle East the UAE is leading the implementation of these measures in new buildings, with thirteen projects now registered under the WELL Building Standard. With this growing market trend, and in consideration of the principles of healthy living that are involuntarily affecting our health on a day to day basis, it is important that the public as well as developers and designers are aware of the concepts of designing for occupant health and wellness.

In the IEQ forum held in May 2018, Engr Aisha Alabdooli, Director of the Air Quality Department at the UAE Ministry of Climate Change, shared her experience regarding government policies and projects, stating that the UAE has adopted an integrated approach towards the achievement of improved air quality. Elaborating, she explained that the UAE has identified key performance indicators for sustainable development, with air quality being prioritised among these. It was also noted that the UAE has specific air quality targets to be reached by 2021, adding "action plans are already in place, and we are confident that we will reach those targets by collaborating with different stakeholders."

In light of the above, this article aims to shed light on the topic of health and well-being in buildings, through an examination of existing green building rating schemes, as well as providing some examples of early adopters in the region along with key takeaways and solutions.



GREEN BUILDING STANDARDS

The transition towards sustainable design and construction has increased exponentially in recent years, along with the development of new green building rating systems. Green building rating systems such as BREEAM, LEED and other local systems such as ESTIDAMA, DGBR, Saafat and GSAS have been widely adopted for new as well as existing buildings. Existing green building rating systems address a range of parameters and approach sustainability in a comprehensive manner. These parameters include reducing carbon footprint, operation and maintenance, waste recycling, efficiency of building systems as well as enhancing indoor environmental quality for building occupants. While the existing rating systems address topics related to health and well being and integrate requirements that address healthy buildings, new standards are available that are more focused on multiple aspects with a much deeper assessment of health and wellbeing in new and existing buildings.

In October 2014, the WELL Building Standard was officially launched. The WELL Building Standard was pioneered by Delos and is administered by the International WELL Building Institute (IWBI)¹. Like LEED, WELL is also thirdparty certified through Green Building Certification Institute (GBCI). The standard is divided into seven major chapters, known formally as concepts. The seven concepts are Air, Water, Nourishment, Light, Comfort, Fitness, and Mind. Each concept consists of a certain number of features. There are three levels of certification which can be pursued; Platinum, Gold and Silver which are awarded upon achieving a number of preconditions (compulsory requirements) and (optional features).

The Fitwel certification has been launched globally in March 2017, by the US Center for Disease Control and Prevention (CDC) and the General Services Administration (GSA). Fitwel consists of seven impact categories, with no dominant category or area of focus. The categories consider community health, social equity, nutrition, physical activity and occupant safety and wellness. They are divided into 55+ design strategies where all strategies are voluntary with no individual prerequisites.

The WELL and Fitwel requirements focus solely on the health and wellness of building occupants. Simple steps to improve indoor air quality, increase natural light and introduce greenery have ancillary benefits related to building efficiency and performance. These measures can also have a significant impact on the bottom line by improving employee productivity and reducing absenteeism, staff turnover and medical costs.



EARLY ADOPTERS

There are approximately 13 projects which are already registered and pursuing the WELL Building standard in the UAE, including both offices and residential developments. Although most studies and work around the topic of healthy buildings has focused on office buildings, it is prudent to apply these principles in schools, universities and hospitals, where building users are greatly affected by the quality of the built environment given the typical increased occupancy and vulnerability of occupants. In a study conducted in the UAE to evaluate IEQ conditions in elementary school classrooms, results show that acoustic, light and air quality were not meeting recommended limits specified by local regulations ². Poor Indoor air quality in schools can lead to long term respiratory problems including bronchitis and asthma. Poor lighting, acoustics and thermal comfort can compromise the students' learning ability and performance during the day.

Among the early adopters of design for wellness is a Danish Interior Design firm, who have successfully integrated collaborative, ergonomic furniture, flexible space layouts and biophilic design. A recognized health insurance company has also recently completed the design and construction of their main office in Dubai, implementing many of these measures in addition to designating space for a "wellness room", separate phone booths for improved privacy as well as flexible space for eating and exercising within the office. While the application within commercial and residential spaces is evident, rating of community projects has not yet been considered. Early adopters of community rating schemes with a health and wellness focus are found in the US, UK, China, France and Ireland. Healthier communities can foster closer social bonds among residents, encourage creativity, uplift mood, reduce depression and lead to a more resilient population.

KEY TAKEAWAYS

Given the evidence on the positive impact of optimizing the indoor built environment for human comfort and well-being, from reduced sick leave and improved productivity to the impact of ROI, the importance of occupant centric design is non-debatable. In a study conducted by Saint Gobain, a 90% improvement in Indoor Air Quality and 40% improvement in acoustical comfort were reported. With these improvements, approximately 40% of employees reported feeling more productive in the Malvern headquarters and 53.7% reported an improvement in perceptions of health and wellbeing^{3.} In another study, it was recorded that an average of 3.5 fewer workdays due to sickness were missed in Skansa's remodeled office in Northern Hub, Doncaster, as compared to their other offices in the UK. This saved the company approximately USD 37,500 in staff costs in 2015 as well as improving employee satisfaction by 20%⁴. While it is difficult in many cases to provide an exact quantification of the ROI, employee satisfaction has been proven to have long term financial impacts.

The approach to enhancing IEQ is multifaceted, with several key factors to consider when establishing workplace / corporate wellness. These include promotion of physical activity, healthy nutrition, stress management, smoking control and team building. Other considerations include programs that encourage employee community engagement, through volunteering activities and charity work, as well as promoting a culture of health through design and visual cues.

In the design of new buildings and fit-out work, consideration to material and furniture selection, active furnishing, ergonomics, lighting design and the integration of natural elements through biophilia can have positive impacts on the perception of space and the quality of the indoor environment.

The recent trend towards healthy buildings emphasizes the importance of designing buildings while keeping the primary element in mind, which are the users who will inhabit them. The good news is that the uptake of certification schemes has helped improve wellbeing and satisfaction of building occupants as seen in different countries. In the UAE, materials and tools are becoming available to facilitate the implementation of these principles which we anticipate will continue to grow over the coming years.





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References

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³ Saint Gobain Headquarters Occupant Comfort Study reveals collective benefits of a systems-based design approach. (2018, July 20). Retrieved from https://prismpub. com/saint-gobain-headquarters-occupant-comfort-studyreveals-collective-benefits-of-a-systems-based-design-approach/

⁴ Urban Land Institute Center for Sustainability and Economic Performance. "The Business Case for Healthy Buildings Insights from Early Adopters." USA, Washington, 2018. Retrieved from: https://americas.uli.org/wp-content/ uploads/sites/125/ULI-Documents/Business-Case-for-Healthy-Buildings-FINAL.pdf

