WORKPLACE AIR QUALITY: A GLOBAL CONCERN EMERGES

Office Workers Share Attitudes and Perceptions About the Safety of Indoor Air

Honeywell 2022 Healthy Buildings Survey



TABLE OF CONTENTS

OVERVIEW: OFFICE AIR QUALITY IS NO LONGER INVISIBLE	2
THERE IS NEAR-UNIVERSAL CONCERN ABOUT AIR QUALITY	3
WORKERS LACK CLEAR UNDERSTANDING OF WHAT CONTRIBUTES TO HEALTHY INDOOR AIR	8
WORKERS WANT MORE INFORMATION ABOUT WORKPLACE IAQ	9
THERE'S A DISCONNECT BETWEEN THE INFORMATION WORKERS WANT AND WHAT THEY'RE RECEIVING	10
REGIONAL BREAKOUTS	13
ASEAN: SURVEYED WORKERS RECOGNIZE STRONG LINK BETWEEN IAQ AND HEALTH	13
GERMANY: SURVEYED WORKERS ARE LEAST CONCERNED ABOUT IAQ	16
INDIA: SURVEYED WORKERS MOST CONCERNED, MOST INFORMED ABOUT BUILDING IAQ	20
MIDDLE EAST: SURVEYED WORKERS AMONG MOST INFORMED ABOUT IAQ	23
UNITED KINGDOM: SURVEYED WORKERS LEAST INFORMED, LEAST WORRIED ABOUT BUILDING IAQ	26
UNITED STATES: SURVEYED WORKERS AMONG LEAST INFORMED ABOUT BUILDING IAQ	30
SURVEY METHODOLOGY	33

OVERVIEW

OFFICE AIR QUALITY IS NO LONGER INVISIBLE

Even before COVID-19 abruptly raised awareness of indoor air quality (IAQ), government agencies in the United States and other countries researched the possibility that stale or polluted office air might be adversely affecting employee health and productivity. With the onset of the global pandemic in early 2020, airborne pathogens and their transmissibility soon became a global preoccupation.

As a leader in creating healthy building solutions, Honeywell continues to research occupant perspectives and concerns worldwide and has redoubled efforts to support building owners' initiatives to improve IAQ as well as to keep occupants informed. With many office employees still working from home in some regions, Honeywell is also monitoring their attitudes toward returning to the workplace. Do workers believe employers are improving IAQ to protect their well-being? Are they receiving enough information about their indoor work environment? Will they consider leaving their job rather than returning to work if employers have done nothing to upgrade IAQ?

In late 2021 and early 2022, Honeywell conducted its second annual Healthy Buildings Survey with Wakefield Research to gauge office workers' perspectives about the air in their facilities. The survey queried 3,000 employees who work in buildings with 500 or more occupants in six geographic regions: ASEAN, Germany, India, the Middle East, the United Kingdom and the United States.

This report explores these global findings – both within the six regions and across five different facility types: office buildings, hospitals, airports, schools and hotels. It offers insights into office workers' expectations and apprehensions as they work in or return to their workplaces – or even contemplate whether they should remain with their current employers.

The survey finds that employees in all regions remain highly concerned about IAQ. They expect their employers and building managers to take measures to protect their health and well-being and keep them apprised of the quality of the air they breathe. The results also reveal an important disconnect: Many employers and building managers are falling short of these expectations.

THERE IS NEAR-UNIVERSAL CONCERN ABOUT AIR QUALITY

Surveyed office workers in all six regions are united in their belief that good air quality plays a critical role in keeping them healthy and safe. Nearly all agree that good indoor air can result in one or more health-related benefits.

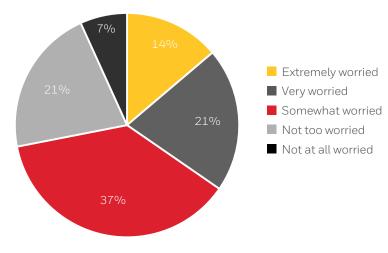
89%

AGREE THAT THE AIR THEY BREATHE HAS A DIRECT IMPACT ON THEIR HEALTH AND WELL-BEING

WORKPLACE AIR QUALITY IS AN ONGOING CONCERN

Given that most workers believe safe indoor air brings health benefits, they are particularly concerned about the air in their workplace. Nearly three in four (72%) surveyed in-person workers are at least somewhat worried about their building's IAQ, including 35% who are extremely or very worried.

Surveyed global workers' level of worry about IAQ in their building



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Top health benefits of safer IAQ, according to surveyed office workers

62%Better overall physical health (lungs, asthma, etc.)

60%

Fewer allergens and pollutants in the air resulting in less sneezing and coughing

57%
Fewer airborne contaminants

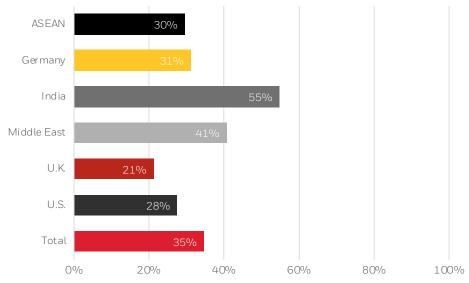
53%
Better overall mental health (mood, general functioning at work, etc.)

48%
Fewer odors in the air

43% Improved productivity and problem-solving

However, survey respondents in the six geographic regions differ significantly in their levels of concern. Levels of worry were highest in India and lowest in the United Kingdom.

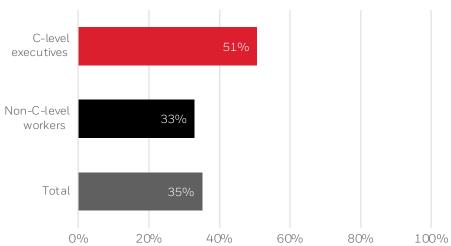
Surveyed workers who are very or extremely worried about their building's IAQ, by region



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Respondents' degrees of concern also correlate positively with their organizational level; those at more senior levels are more concerned about their building's IAQ. More than half of C-level executives are very or extremely worried about it, compared with just a third of non-C-level workers.

Surveyed workers who are very or extremely worried about their building's IAQ, by organizational level

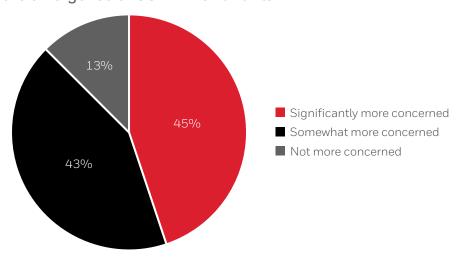


Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

COVID-19 VARIANTS HEIGHTEN IAQ CONCERNS

As new COVID-19 variants emerge, surveyed office workers are even more worried about air quality in their buildings. Nearly nine in 10 respondents (87%) currently feel more uneasy about working indoors than they did before.

Surveyed workers with heightened concern about working in a building since the emergence of COVID-19 variants

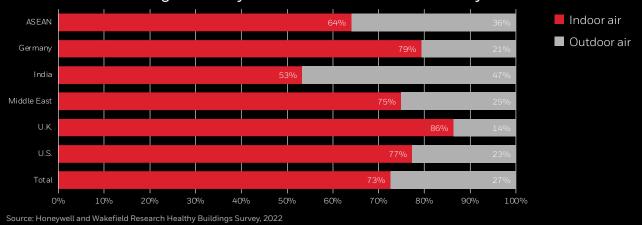


Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022 Percentages may not add up to 100% because of rounding

IS INDOOR AIR MORE UNHEALTHY THAN OUTDOOR AIR?

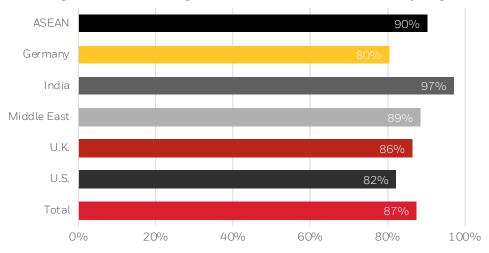
Nearly three-quarters of survey respondents believe indoor air is less healthy to breathe than outdoor air; however, perceptions differ significantly by region. For example, 86% of surveyed workers in the United Kingdom are more likely to believe indoor air is less healthy than outdoor air, whereas just 53% of workers in India agree with this sentiment.

Which of the following do surveyed workers consider less healthy to breathe?



Again, there are notable geographic differences. At the high end, nearly all respondents in India (97%) are more worried about working in a building because of COVID-19 variants, compared with just 80% of those in Germany.

Surveyed workers with heightened concern about working in a building since the emergence of COVID-19 variants, by region

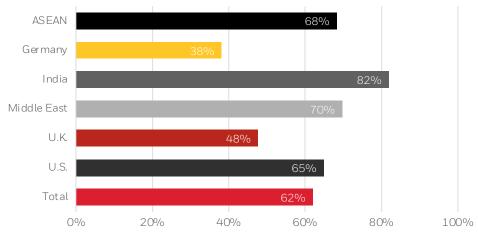


Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

UNHEALTHY INDOOR ENVIRONMENTS CAN DRIVE EMPLOYEES AWAY

Healthy indoor conditions are increasingly becoming a "make-or-break" factor in workers' decisions to remain at their jobs. More than six in 10 respondents say they'll quit their position if their employer doesn't take necessary steps to create a healthier indoor environment that promotes their well-being; however, results vary by region.

Surveyed workers who would leave their job if their employer does not take measures to create a healthier work environment, by region



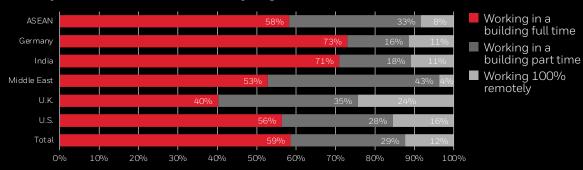
Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

This sentiment is significantly higher among C-level executives, with 73% reporting they would leave their job over an unhealthy indoor environment. This compares with just 61% of non-C-level workers.

IN-PERSON WORK IS BOUNCING BACK

The COVID-19 pandemic curtailed in-person office work in 2020 and 2021, but most workers in the survey are now back at their facilities. Nearly nine in 10 respondents (88%) report they are currently working in a building, either full or part time, with only 12% working remotely full time. Overall, the percentage of in-person workers is up from 83% in 2021.

Surveyed office worker status, by region



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

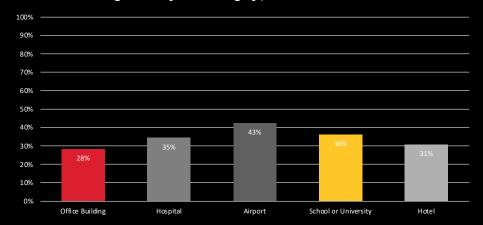
Surveyed office workers in specific facility types are more likely to be working in person full time, with airport and hospital employees more likely than those working in office buildings, universities or hotels.

SURVEYED OFFICE WORKERS WORKING IN THEIR BUILDING FULL TIME, BY FACILITY TYPE



Respondents whose buildings are open to the general public – including airports, schools and hospitals – tend to be more concerned about potentially unsafe indoor air in their workplace.

Surveyed office workers who are very or extremely concerned about building IAQ, by building type



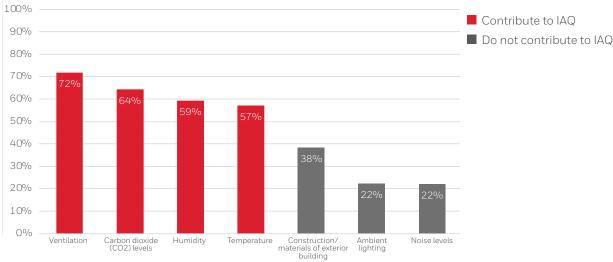
 $Source: Honeywell \ and \ Wakefield \ Research \ Healthy \ Buildings \ Survey, 2022$

WORKERS LACK CLEAR UNDERSTANDING OF WHAT CONTRIBUTES TO HEALTHY INDOOR AIR

Most surveyed workers agree that safe IAQ is important to their health and well-being, yet a majority are not completely aware of specific IAQ parameters. When presented with a list of factors that affect IAQ, the majority do not know that ventilation, carbon dioxide (CO2) level, humidity and temperature all contribute to IAQ and that ambient lighting, noise levels and exterior building materials do not.

59%
CANNOT CORRECTLY
IDENTIFY ALL
FACTORS THAT
AFFECT IAQ

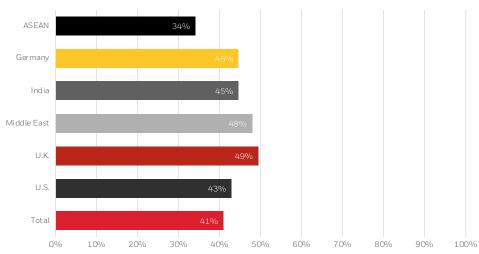
Factors that surveyed workers believe contribute to IAQ



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Respondents in the United Kingdom most accurately identify all the factors that contribute to IAQ, followed by those in the Middle East and Germany. Workers in India and ASEAN are less aware.

Surveyed workers who correctly identify factors contributing to IAQ, by region



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

WORKERS WANT MORE INFORMATION ABOUT WORKPLACE IAQ

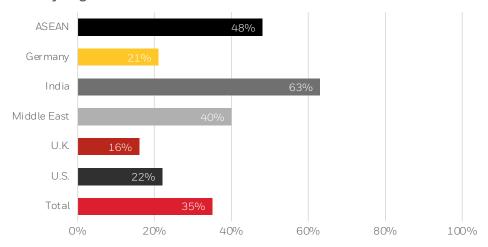
Though they cannot always identify all factors that contribute to IAQ, surveyed office workers look to their employers and building managers to keep them apprised of their building's IAQ. Nearly two-thirds of respondents working in person say it is very or extremely important that they be kept informed about the air quality in their buildings.

DETAILED KNOWLEDGE ABOUT WORKPLACE IAQ IS LOW

A substantial majority (82%) of surveyed workers say they know at least a little about their building's IAQ, and just over one-third claim to know a lot. Those in India and ASEAN claim the highest levels of knowledge.

OF SURVEYED
IN-PERSON WORKERS
SAY IT'S VERY
OR EXTREMELY
IMPORTANT TO BE
INFORMED ABOUT
BUILDING IAO

Surveyed workers who claim to know a lot about their building's IAQ, by region



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

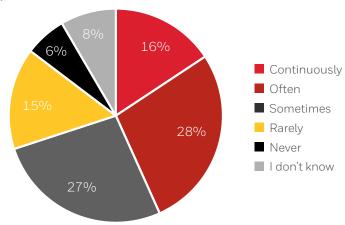
Senior-level employees claim to be more knowledgeable. More than nine in $10\,(91\%)$ C-level executives say they know at least a little about their building's IAQ, including 56% who say they know a lot – significantly more than the 81% and 33% of non-C-level workers, respectively.

At the other end of the spectrum, just 18% of total respondents – including 34% in the United Kingdom, 27% in the United States and 25% in Germany – say they have no knowledge about their building's IAQ.

THERE'S A DISCONNECT BETWEEN THE INFORMATION WORKERS WANT AND WHAT THEY'RE RECEIVING

Despite workers' desire for more information about workplace IAQ, many employers and building managers are not currently providing it. For some, this is likely because they're not regularly monitoring IAQ or because they haven't established regular communication channels. Just 43% of global respondents say their building monitors IAQ continuously or often, while 48% say their building monitors it only sometimes, rarely or never.

Frequency with which surveyed workers say their building's IAQ is monitored



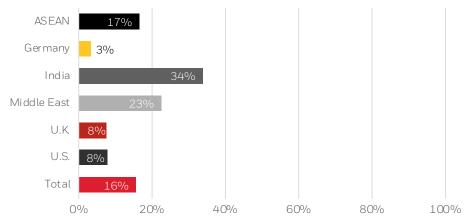
15%

OF SURVEYED
IN-PERSON
WORKERS SAY THEY
GET CONTINUOUS
UPDATES ABOUT
THEIR BUILDING'S
AIR QUALITY

Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Results vary widely by region. Workers in India (34%), the Middle East (23%) and ASEAN (17%) are most likely to say their building's IAQ is monitored continuously compared with just 8% each of workers in the United States and United Kingdom, and 3% of workers in Germany.

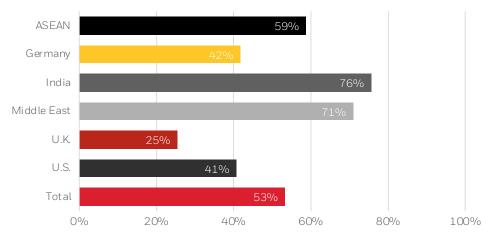
Surveyed workers who say their building's air quality is monitored continuously, by region



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

The ability to access self-service information about IAQ also differs by region. Notably more workers in India, the Middle East and ASEAN report having a place where they can read or see their building's IAQ for themselves.

Surveyed workers who have a place in their building to read or see IAQ levels

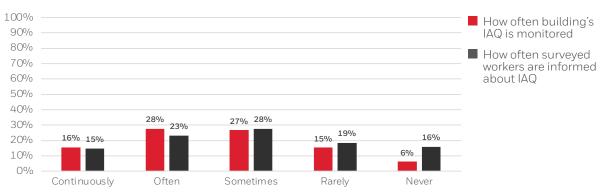


Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

MORE MONITORING LEADS TO MORE COMMUNICATION

Employers and building managers who frequently monitor their facilities' IAQ are more likely to provide regular information to their workers.

Frequency of IAQ monitoring compared with frequency of informing surveyed workers about air quality



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

As with IAQ information in general, senior-level employees tend to have more access to real-time data. Nearly a third (29%) of C-level executives say they receive continuous updates, compared with just 13% of non-C-level workers. Nearly two-thirds (64%) of non-C-level workers receive updates only sometimes, rarely or never.

These results suggest that while workers are getting at least some information about their building's air quality, building managers and employers may be falling short when it comes to monitoring IAQ and providing the desired amount of information to employees.

"THESE FINDINGS SUGGEST THAT WORKERS IN EVERY REGION ARE AWARE THAT INDOOR AIR QUALITY CAN AFFECT THEIR WELL-BEING AND EXPECT EMPLOYERS TO TAKE ACTION - BOTH TO IMPROVE IAQ AND KEEP THEM BETTER INFORMED. IN A COMPETITIVE LABOR MARKET, DEMONSTRATING AN EFFORT TO CREATE A HEALTHIER WORK ENVIRONMENT CAN BE AN ADVANTAGE IN ATTRACTING AND RETAINING EMPLOYEES. EVERY INVESTMENT MADE IN UPGRADING WORKPLACE AIR QUALITY. MONITORING IAO DATA AND COMMUNICATING IT TO EMPLOYEES WILL PAY **OFF STRATEGICALLY."**

- DOUG WRIGHT, PRESIDENT AND CEO, HONEYWELL BUILDING TECHNOLOGIES



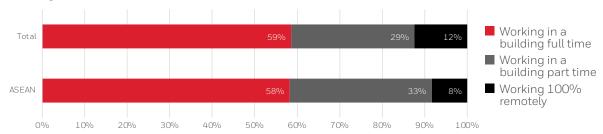
REGIONAL BREAKOUTS

ASEAN: SURVEYED WORKERS RECOGNIZE STRONG LINK BETWEEN IAQ AND HEALTH

Surveyed office workers in ASEAN feel strongly that safe IAQ contributes to their health and well-being but have a relatively low level of understanding about its contributing factors. Still, they receive higher-than-average levels of information about their building's IAQ.

Ninety-two percent of surveyed office workers in ASEAN are currently working in a building.

Surveyed ASEAN worker status



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

79%

BELIEVE THE QUALITY OF THE AIR THEY BREATHE HAS A DIRECT IMPACT ON THEIR **HEALTH AND WELL-BEING**

64%

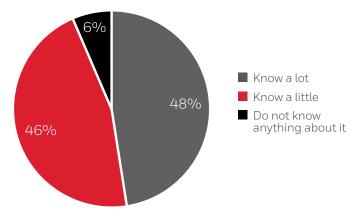
BELIEVE INDOOR AIR IS LESS HEALTHY TO BREATHE THAN **OUTDOOR AIR**

A majority see the benefits of safe indoor air and agree that it promotes better overall physical health, among other benefits.

Across all regions surveyed, ASEAN office workers are among the least knowledgeable about specific factors that affect IAQ. Just 34% correctly identify the factors that contribute to air quality.

Despite this seeming lack of awareness, ASEAN workers report having more knowledge about their own building's IAQ than workers in other regions.

Surveyed ASEAN workers' knowledge about their building's IAQ



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Knowledge aside, a large percentage of in-person ASEAN workers (69%) are still at least somewhat worried about their building's IAQ – and the emergence of new COVID-19 variants is only heightening their concerns.

90%

OF SURVEYED ASEAN WORKERS
WORRY MORE ABOUT IAQ AS A
RESULT OF NEW COVID-19 VARIANTS

ASEAN workers are likely to take action if they feel their employer isn't taking steps to create a healthier indoor environment. More than two-thirds (68%) say they would likely quit their job under these conditions.

With all these concerns top of mind, 73% of those currently working in their building say it is very or extremely important that they be informed about their workplace's IAQ.

Top health benefits of safer IAQ according to ASEAN workers

69%
Better overall physical health (lungs, asthma, etc.)

66%

Fewer allergens and pollutants in the air resulting in less sneezing and coughing

56%
Fewer airborne contaminants

58% Better overall mental health (mood, general functioning at work, etc.)

53%
Fewer odors in the air

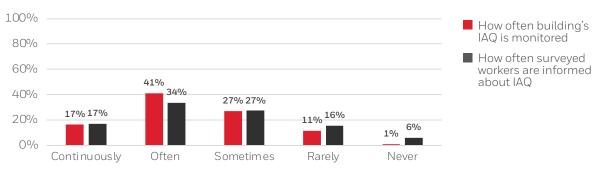
46% Improved productivity and problem-solving

"THESE FINDINGS SUGGEST THAT COMMUNICATION OF IAQ METRICS TO EMPLOYEES SHOULD BE A TOP PRIORITY FOR EMPLOYERS."

- SHARAD YADAV, VICE PRESIDENT AND GENERAL MANAGER, HONEYWELL BUILDING TECHNOLOGIES, ASEAN

Many surveyed workers (58%) say their building IAQ is monitored often or continuously – more than the global average of 43% – and more than half (51%) say they are being informed at the same frequency. The option for self-service IAQ data is also prevalent in the ASEAN region; 59% of workers have a place where they can read or see current air quality data on their own.

Frequency of IAQ monitoring compared with frequency of informing surveyed ASEAN workers about air quality



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

There is room for improvement, however. Almost four in 10 (39%) ASEAN workers say their building IAQ is never, rarely or only sometimes monitored, while 49% say they are never, rarely or only sometimes informed of the results.

"WITH A LARGE PERCENTAGE OF WORKERS IN THE ASEAN REGION WORKING IN THE OFFICE AT LEAST PART TIME, AND DESPITE MANY HAVING ACCESS TO IAQ INFORMATION IN THEIR WORKPLACE, EMPLOYEES STILL DESIRE MORE INFORMATION. SINCE THE START OF THE PANDEMIC, HONEYWELL HAS WORKED TO HELP CUSTOMERS IN THE REGION BRING PEOPLE SAFELY BACK TO THEIR BUILDINGS AND TO DEPLOY INNOVATIVE TECHNOLOGY THAT HELPS REASSURE EMPLOYEES THAT THEIR WORKSPACES ARE HEALTHIER."

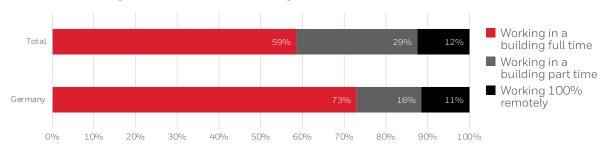
- NORM GILSDORF, PRESIDENT, HONEYWELL ASEAN

GERMANY: SURVEYED WORKERS ARE LEAST CONCERNED ABOUT IAQ

Surveyed workers in Germany feel the least concern about their building's indoor air quality, but many still say they are not adequately informed.

Nearly nine in 10 surveyed office workers in Germany are currently working in buildings, including 73% (highest among regions) working full time and 16% working part time.

Status of surveyed workers in Germany



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

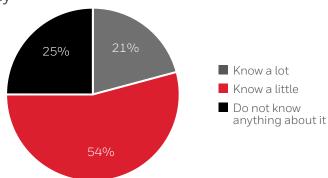
92%

BELIEVE THE QUALITY OF THE AIR THEY BREATHE HAS A DIRECT IMPACT ON THEIR HEALTH AND WELL-BEING

The vast majority (79%) believe that indoor air is less healthy than outdoor air, higher than the global average of 73%. More than half (56%) agree that better overall physical health results from good IAQ, but fewer (48%) say the same about mental health. Both percentages lag global averages.

While more than nine in 10 (92%) surveyed workers in Germany agree that safe IAQ has health benefits, there is a lack of knowledge about what factors affect IAQ. More than half (55%) of office workers in Germany cannot correctly identify all of the factors that contribute to IAQ, and one-quarter do not know anything about IAQ in their workplace.

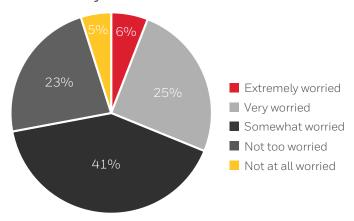
Knowledge of their building's IAQ according to surveyed workers in Germany



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

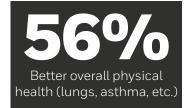
Nearly three-quarters (72%) of those currently working inside their building are at least somewhat worried about the IAQ there. Those with more knowledge are more likely to be concerned. Seventy-six percent who know at least something about their building's IAQ are at least somewhat concerned, compared with 58% of those with no knowledge.

Level of concern about their building's IAQ according to surveyed workers in Germany



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Top health benefits of safer IAQ according to surveyed workers in Germany













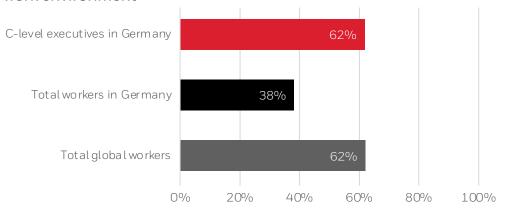
Meanwhile, COVID-19 variants are heightening concerns among surveyed workers in Germany. Four in five say they are more worried about IAQ now than before the new strains emerged.

80%

OF SURVEYED WORKERS IN GERMANY WORRY MORE ABOUT IAQ AS A RESULT OF NEW COVID-19 VARIANTS

Despite their concerns, more surveyed workers in Germany are likely to stay put in their jobs despite potentially unsafe indoor air. Fewer than two in five workers (38%) say they would leave their job if they feel their employer is not taking steps to provide a healthier indoor environment – the lowest percentage among regions. C-level executives, however, are more likely to say they would quit.

Surveyed workers in Germany who would leave their job if their employer does not take measures to create a healthier work environment



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

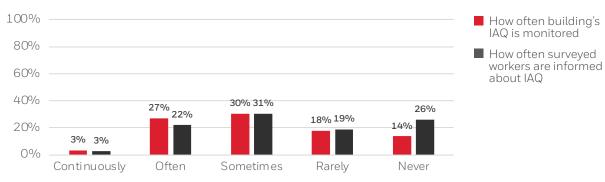
Nearly half of surveyed office workers in Germany (47%) who are currently working inside a building say it is very or extremely important that they be informed about their building's IAQ – the lowest percentage among all regions.

Those who are aware of their building's IAQ generally feel more strongly that it is important to know about it. More than half (55%) of those who are knowledgeable about their building's IAQ say it is very or extremely important to be informed, compared with only 24% of those who don't know anything about their building's IAQ.

Employers and building managers in Germany are behind the curve when it comes to both IAQ monitoring and reporting. More than three-fifths of office workers (62%) report that their building IAQ is monitored only sometimes, rarely or never, including 14% who say it is never monitored. This ties the United Kingdom for the highest percentage among all regions.

A lack of regular monitoring may explain why many building managers are not consistently sharing IAQ information with workers. Only 3% of workers in Germany – versus 15% globally – say they receive continuous updates about their building's IAQ, the lowest percentage among all regions.

Frequency of IAQ monitoring compared with frequency of informing surveyed workers in Germany about air quality



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

In-person workers in Germany also lag the global average in their ability to get real-time IAQ information about their facility. Only 42% (versus 53% globally) report having a place where they can go to read or see their building's air quality on their own.

"CURRENTLY, MORE WORKERS IN GERMANY HAVE RETURNED TO THEIR OFFICES COMPARED WITH THE OTHER REGIONS SURVEYED. YET THEY DON'T KNOW A LOT ABOUT THE QUALITY OF AIR IN THEIR **WORKSPACES. WHILE THEY MAY SEEM COMPLACENT, THOSE SURVEYED ARE ANXIOUS ABOUT COVID-19 VARIANTS."**

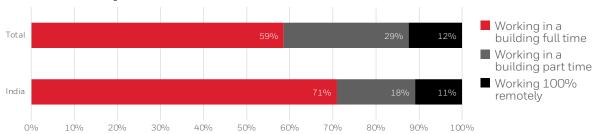
DOUG WRIGHT, PRESIDENT AND CEO, HONEYWELL BUILDING TECHNOLOGIES

INDIA: SURVEYED WORKERS MOST **CONCERNED, MOST INFORMED ABOUT BUILDING IAQ**

Surveyed office workers in India are the most worried about their building's IAQ and most likely to receive IAQ updates, yet most do not completely understand the specific factors that contribute to IAQ.

The number of surveyed office workers in India currently working in buildings is significantly higher than the global average. Eighty-nine percent of respondents in India are working in person at an office building.

Status of surveyed workers in India



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

More than in other regions, surveyed workers in India are nearly unanimous in their agreement that the quality of air they breathe has a direct impact on their health and well-being.

96%

BELIEVE THE QUALITY OF THE AIR THEY BREATHE HAS A DIRECT IMPACT ON THEIR **HEALTH AND WELL-BEING**

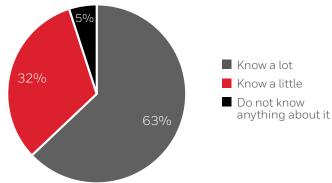
BELIEVE INDOOR AIR IS LESS HEALTHY TO BREATHE THAN **OUTDOOR AIR**

Many surveyed workers in India are more concerned about their outdoor air quality than those in other regions. This may explain why they also believe that safe indoor air can promote better overall physical health and better overall mental health — the highest percentages globally.

Though surveyed office workers in India believe IAQ has significant potential health benefits, they are the least knowledgeable of all regions about its contributing factors. Nearly three-quarters (73%) are unaware of all the factors that can affect it.

Despite this lack of IAQ knowledge, respondents in India consider themselves well-informed about their own building's air quality. In fact, India leads all regions in the percentage of workers who say they know a lot about their facility's IAQ, based on regular updates from their employer or building manager. It also leads the regions in the percentage of workers who report knowing at least a little about it.

Knowledge of their building's IAQ, according to surveyed workers in India



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

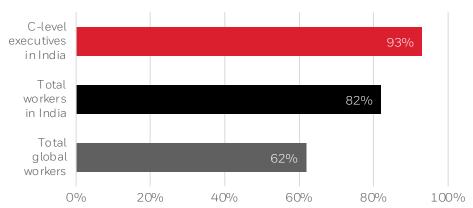
Surveyed workers' concerns about IAQ in India are particularly acute, with 82% of in-person workers – 10 percentage points higher than the global average – expressing at least some worry about their building's IAQ.

The emergence of new COVID-19 variants has further heightened their concerns. More than four-fifths (82%) of respondents in India say they are willing to leave their position if their employer isn't taking steps to create a healthier indoor environment that promotes their well-being. This number exceeds the global average by 20 percentage points.

97%

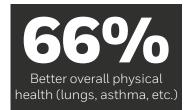
OF SURVEYED WORKERS IN INDIA WORRY MORE ABOUT IAQ AS A RESULT OF NEW COVID-19 VARIANTS

Surveyed workers in India who would leave their job if their employer does not take measures to create a healthier work environment



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Top health benefits of safer IAQ according to workers in India











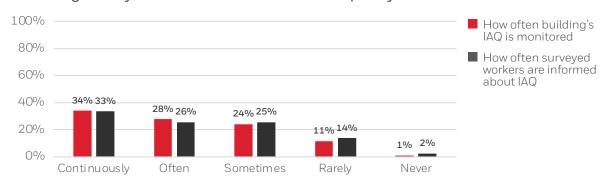


A region-leading 86% of surveyed in-person workers in India agree that it is extremely important for them to be informed about their facility's IAQ.

India leads all regions in reported frequency of building IAQ monitoring. More than one-third (34%) of respondents say their building's IAQ is monitored continuously – double the global average of 16%. Just 36% of respondents say their building's air quality is monitored only sometimes, rarely or never.

The regularity of IAQ monitoring tracks closely with the frequency with which workers in India say they are informed about their building's IAQ. One-third of workers in India (33%) say they receive continuous updates on their building's air quality.

Frequency of IAQ monitoring compared with frequency of informing surveyed workers in India about air quality



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Surveyed workers in India also have accessibility to more self-service IAQ information than their counterparts in other regions. More than threequarters (76%) report having a place where they can read or see their building's current air quality data on their own, compared with the global average of 53%.

"OF ALL REGIONS SURVEYED, WORKERS IN INDIA EXPRESSED THE HIGHEST LEVEL OF DEMAND THAT EMPLOYERS KEEP THEM **INFORMED OF BUILDING AIR QUALITY AND THE MOST WILLINGNESS** TO LEAVE THEIR JOBS OVER LESS HEALTHY CONDITIONS."

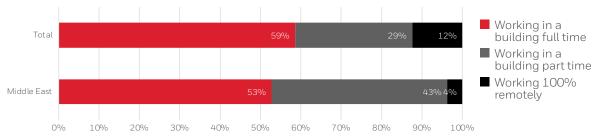
ASHISH MODI, PRESIDENT, HONEYWELL BUILDING TECHNOLOGIES, ASIA

MIDDLE EAST: SURVEYED WORKERS AMONG MOST INFORMED ABOUT IAQ

Surveyed office workers in the Middle East are more knowledgeable than their global peers about the factors that contribute to IAQ, and receive higher-than-average levels of information about their building's IAQ.

Nearly all workers surveyed in the Middle East (96%) are working in person at an office building.





Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

85%

BELIEVE THE QUALITY OF THE AIR THEY BREATHE HAS A DIRECT IMPACT ON THEIR HEALTH AND WELL-BEING **75%**

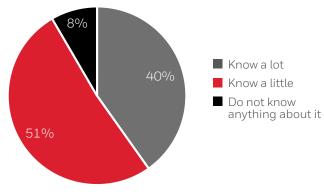
BELIEVE INDOOR AIR
IS LESS HEALTHY
TO BREATHE THAN
OUTDOOR AIR

They see benefits in safe indoor air and agree that it can result in better overall physical and mental health, among other benefits.

Compared with other regions, surveyed workers in the Middle East are both relatively well-informed about IAQ and more knowledgeable about IAQ levels in their buildings. Nearly half (48%) can correctly identify the factors that contribute to air quality; the second-highest percentage among all regions.

Surveyed workers in the Middle East also report having a higher-than-average level of knowledge about the IAQ in their own building.

Surveyed Middle East workers' knowledge about their building's IAQ



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022 Percentages may not add up to 100% because of rounding

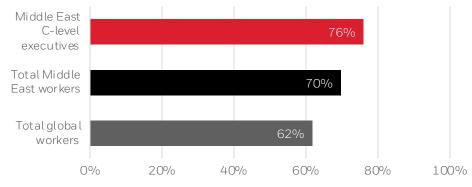
Nearly four in five (79%) of those working inside their building are at least somewhat worried about its IAQ. The emergence of new COVID-19 variants is further heightening these concerns.

89%

OF SURVEYED WORKERS IN THE MIDDLE EAST WORRY MORE ABOUT IAQ AS A RESULT OF NEW COVID-19 VARIANTS

A substantial majority (70%) of surveyed workers in the Middle East say they would leave their job if their employer does not take steps to create a healthier indoor environment. This percentage is higher among C-level executives.

Surveyed Middle East workers who would leave their job if their employer does not take measures to create a healthier work environment



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Top health benefits of safer IAQ according to workers in the Middle East

55%
Better overall physical health (lungs, asthma, etc.)

51%

Fewer allergens and pollutants in the air resulting in less speezing.

pollutants in the air resulting in less sneezing and coughing

48% Fewer airborne contaminants

45% Better overall mental health (mood, general functioning at work, etc.)

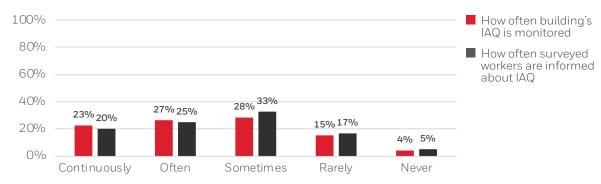
45%
Fewer odors in the air

37% Improved productivity and problem-solving

Most surveyed office workers in the Middle East (72%) currently working in their building say it is very or extremely important that their employer or building manager keep them informed about their facility's IAQ.

Many employers and building managers are living up to these expectations. Nearly half (49%) of surveyed workers report that their building IAQ is monitored continuously or often, whereas just 3% report not knowing how often it is monitored. Likewise, the percentage of workers (45%) in the Middle East who say they receive building IAQ updates continuously or often exceeds the global average.

Frequency of IAQ monitoring compared with frequency of informing surveyed Middle East workers about air quality



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

However, there is also room for improvement when it comes to monitoring IAQ and updating workers: Nearly as many respondents (47%) report their building air quality is monitored rarely, never or only sometimes at best, while 55% say they receive updates with the same frequency.

"OFFICE WORKERS IN THE MIDDLE EAST HAVE A BETTER UNDERSTANDING OF AIR QUALITY COMPARED WITH THE GLOBAL AVERAGE, BUT OUR RESEARCH SHOWS THEY REMAIN HIGHLY CONCERNED ABOUT IAQ LEVELS WITHIN THEIR BUILDINGS."

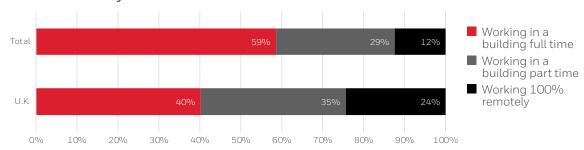
- FAHMI JABRI, GENERAL MANAGER, BUILDING MANAGEMENT SYSTEMS, HONEYWELL BUILDING TECHNOLOGIES, MIDDLE EAST, TURKEY AND AFRICA

UNITED KINGDOM: SURVEYED WORKERS LEAST INFORMED, LEAST WORRIED ABOUT BUILDING IAQ

Surveyed office workers in the United Kingdom are the most knowledgeable about the factors that contribute to IAQ, but the least informed and the least worried about their own building's IAQ.

At 75%, the United Kingdom has the lowest percentage of any region of respondents working in buildings. Nearly a quarter are working remotely, the highest percentage among regions surveyed and double the global average of 12%

Status of surveyed U.K. workers



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

94%

BELIEVE THE QUALITY OF THE AIR THEY BREATHE HAS A DIRECT IMPACT ON THEIR HEALTH AND WELL-BEING 86%

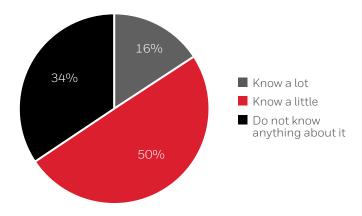
BELIEVE INDOOR AIR
IS LESS HEALTHY
TO BREATHE THAN
OUTDOOR AIR

Surveyed U.K. workers are more likely than those in other regions to believe that indoor air is less healthy to breathe than outdoor air. U.K. workers, however, do see the benefits of safer indoor air.

They also appear to have more knowledge than their global peers about the specific factors that contribute to IAQ. Nearly half (49%) can correctly identify all the components that do and do not factor into IAQ.

Despite this knowledge, they are largely in the dark about the state of their own building's IAQ and have the lowest levels of building-specific knowledge of any region.

Surveyed U.K. workers' knowledge about their building's IAQ



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

This lack of building-specific IAQ knowledge may account for lower levels of extreme concern. While three in five (61%) surveyed U.K. workers are at least somewhat worried about their building's IAQ, just 21% are extremely or very worried (versus 35% globally). These are among the lowest levels in the survey. However, the emergence of new COVID-19 variants has heightened their worries.

OF SURVEYED U.K. WORKERS WORRY 86% **MORE ABOUT IAQ AS A RESULT OF NEW COVID-19 VARIANTS**

Still, fewer than half of surveyed U.K. workers say they would leave their job if their employer does not take steps to create a healthier indoor environment - significantly lower than the global average. C-level executives, however, are more likely to say they will leave under such conditions.

Top health benefits of safer IAQ according to surveyed **U.K.** workers

Better overall physical health (lungs, asthma, etc.)

Fewer allergens and pollutants in the air resulting in less sneezing and coughing

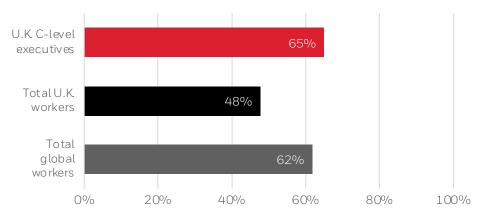
Fewer airborne contaminants

Better overall mental health (mood, general functioning at work, etc.)

Fewer odors in the air

Improved productivity and problem-solving

Surveyed U.K. workers who would leave their job if their employer does not take measures to create a healthier work environment



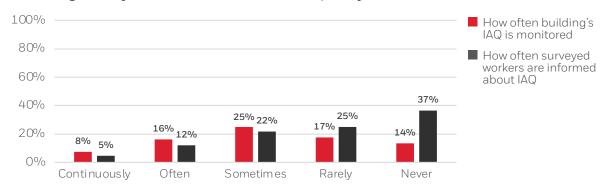
Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Amidst all these concerns, 97% of surveyed U.K. workers say it is important that their employer or building manager keep them apprised of their office building's IAQ. However, only 17% say it is extremely important – the lowest percentage globally.

Like their peers in other regions, surveyed U.K. workers who know about their building's IAQ are more likely to say it is important for them to be informed. Three-fifths (60%) of those who know about their office building's IAQ say it is very or extremely important to be kept in the loop about it, compared with only 31% of those who don't know anything.

Just 8% of surveyed U.K. workers say IAQ is monitored continuously in their building, while 56% say monitoring takes place rarely, never or only sometimes at best.

Frequency of IAQ monitoring compared with frequency of informing surveyed U.K. workers about air quality



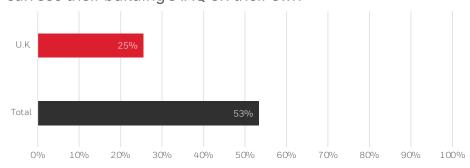
Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

This might explain why U.K. workers are the most likely of all regions to say that information about their building's IAQ is not being shared with them consistently. Just 5%, compared with 15% globally, receive continuous updates about their building's IAQ, (83%) receive updates only sometimes, rarely or never.

It's also not easy for U.K. workers to access IAQ information themselves. Just 25% of respondents currently working in buildings report having a place where they can read or see their building's IAQ data on their own – the lowest percentage among all regions.

OF SURVEYED U.K. **WORKERS DON'T KNOW HOW OFTEN** THEIR BUILDING'S **IAQ IS MONITORED**

Surveyed U.K. workers who have access to a place where they can see their building's IAQ on their own



"THESE FINDINGS SUGGEST THAT U.K. OFFICE WORKERS ARE GIVEN **NEITHER ADEQUATE INFORMATION ABOUT THEIR BUILDING'S IAQ** NOR A PROPER EDUCATION ABOUT THE FACTORS THAT CONTRIBUTE TO INDOOR AIR QUALITY IN GENERAL."

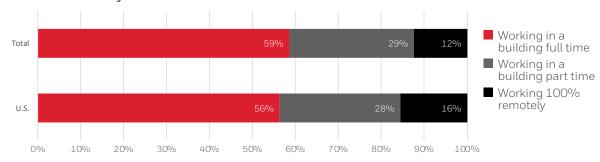
-DOUG WRIGHT, PRESIDENT AND CEO, HONEYWELL BUILDING TECHNOLOGIES

UNITED STATES: SURVEYED WORKERS AMONG LEAST INFORMED ABOUT BUILDING IAQ

Surveyed office workers in the United States believe safe indoor air promotes major health benefits and have concerns about their building's IAQ. They cite a lack of information from their employers and building managers.

More than eight in 10 surveyed U.S. office workers are currently working in buildings - either full or part time.

Status of surveyed U.S. workers



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

Like their counterparts in other regions, an overwhelming majority agree that the quality of air they breathe has a direct impact on their health and well-being.

91%

BELIEVE THE QUALITY OF THE AIR THEY BREATHE **HAS A DIRECT IMPACT** ON THEIR HEALTH AND **WELL-BEING**

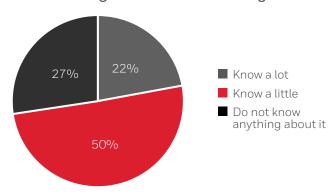
77%

BELIEVE INDOOR AIR IS LESS HEALTHY TO BREATHE THAN **OUTDOOR AIR**

Despite agreement that safe IAQ has significant health benefits, surveyed U.S. office workers lack both an overall understanding of the factors that contribute to IAQ and have little knowledge about their own facility's IAQ.

Nearly three in five surveyed U.S. office workers (57%) cannot correctly identify the components that contribute to IAQ, and more than threequarters (77%) have little or no knowledge of their own building's IAQ.

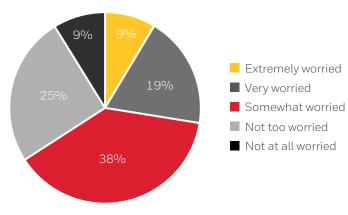
Surveyed U.S. workers' knowledge about their building's IAQ



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

This lack of knowledge appears to be breeding anxiety. Two-thirds (66%) of surveyed U.S. workers currently working inside a building are at least somewhat worried about the IAQ in their workplace, and those reporting more knowledge about their building's IAQ also express higher levels of concern. Seventy percent of those who know at least something about their building's IAQ are at least somewhat worried, compared with 54% who know little or nothing about their building's IAQ.

Surveyed U.S. workers' level of concern about their building's IAQ



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

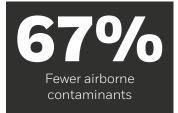
82%

OF SURVEYED U.S. WORKERS WORRY **MORE ABOUT IAQ AS A RESULT OF NEW COVID-19 VARIANTS**

Top health benefits of safer IAQ according to U.S. workers







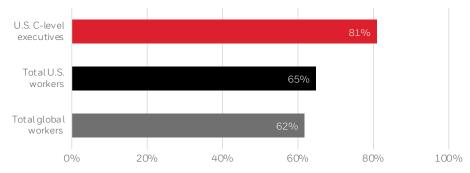






Many surveyed workers in the United States are willing to take action if they feel their health is at risk. Nearly two-thirds say they would leave their job if their employer doesn't take steps to create a healthier indoor environment. U.S. C-level executives are even more likely to say this.

Surveyed U.S. workers who will leave their job if their employer is not taking measures to create a healthier indoor environment

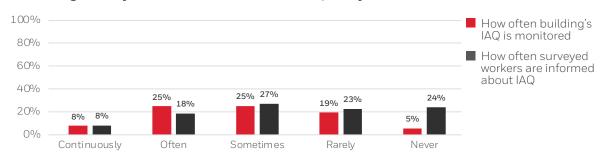


Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

With these worries top of mind, an overwhelming majority (85%) say it is at least somewhat important for their employer or building manager to keep them informed about their office building's IAQ, including 55% who say being informed is very or extremely important.

Unfortunately, respondents in the United States are informed less frequently than the global average about their building's current IAQ. Just 8% receive information continuously (versus 15% globally), while 74% receive it sometimes, rarely or never.

Frequency of IAQ monitoring compared with frequency of informing surveyed U.S. workers about air quality



Source: Honeywell and Wakefield Research Healthy Buildings Survey, 2022

"BASED ON THESE FINDINGS, AN OVERWHELMING MAJORITY OF U.S. RESPONDENTS CALLED OUT THE IMPORTANCE OF THE QUALITY OF AIR THEY BREATHE AND ITS DIRECT IMPACT ON THEIR HEALTH AND WELL-BEING."

- DOUG WRIGHT, PRESIDENT AND CEO, HONEYWELL BUILDING TECHNOLOGIES

SURVEY METHODOLOGY

The Honeywell Healthy Buildings Survey was conducted by Wakefield Research (www.wakefieldresearch.com) among a sample of 3,000 office workers in buildings with 500 or more workers in six regions: ASEAN, Germany, India, the Middle East, the United Kingdom and the United States. The survey was fielded between December 17th, 2021, and January 11th, 2022, using an email invitation and an online form. "Middle East" includes Egypt, Saudi Arabia and the United Arab Emirates. "ASEAN" includes Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam.

Results of any sample are subject to sampling variation. The magnitude of the variation is measurable and is affected by the number of interviews and the level of the percentages expressing the results. For the interviews conducted in this particular study, the chances are 95 in 100 that a survey result does not vary, plus or minus, by more than 4.4 percentage points for the data conducted in each market, and 1.8 percentage points across all markets, from the result that would be obtained if interviews had been conducted with all persons in the universe represented by the sample.

THE FUTURE IS WHAT WE MAKE IT



Honeywell Building Technologies

715 Peachtree St. NE Atlanta, Georgia 30308 honeywell.com