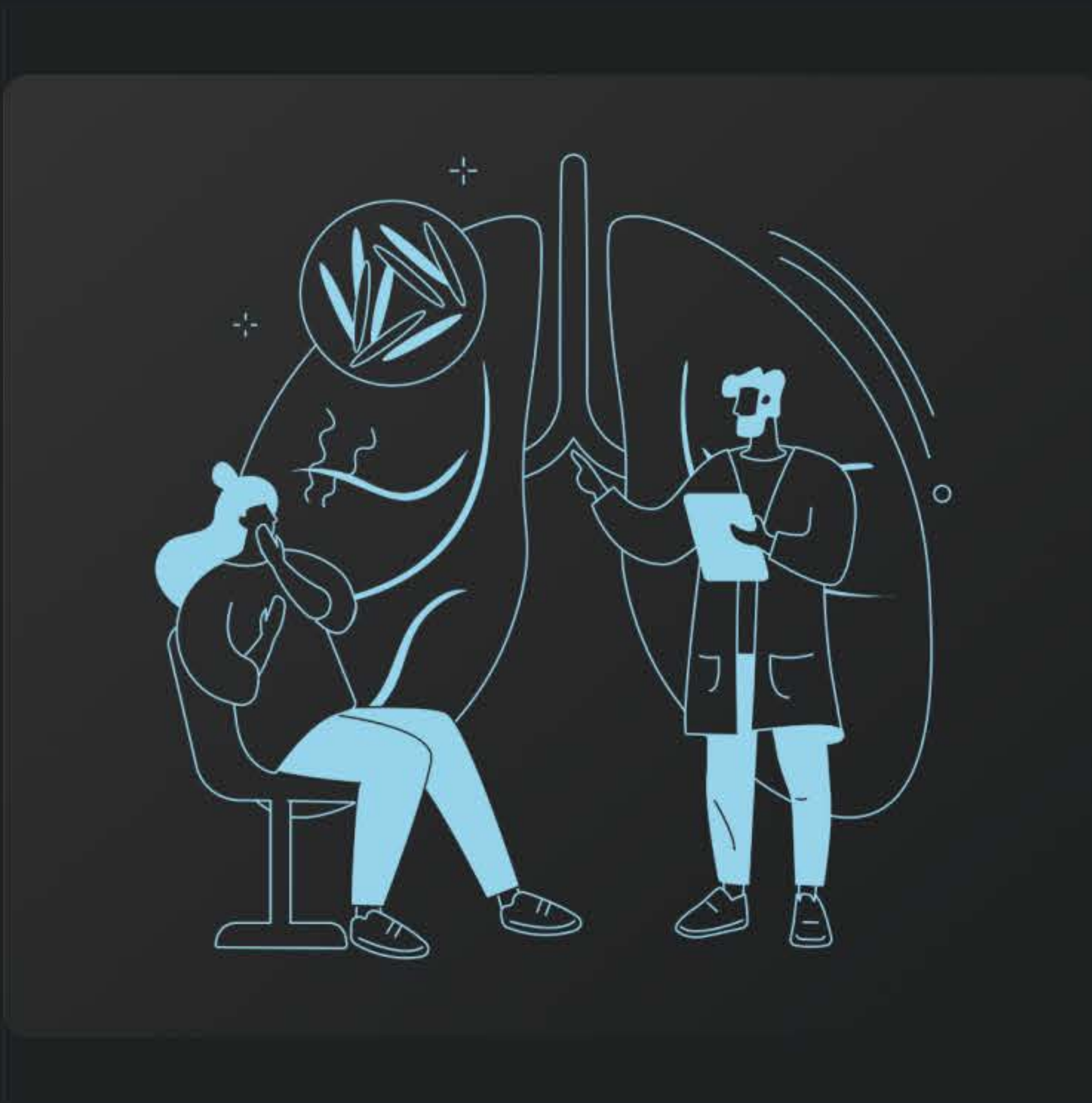# Wellthy Therapeutics Uses Ambee's Air Quality API to Enhance Personalized Digital Healthcare

ambee

The partnership in brief

With air pollution causing multiple respiratory diseases and aggravating other existing health issues like heart disease and asthma, Wellthy Therapeutics wanted to help healthcare partners (HCPs) and patients manage their chronic conditions better.

To achieve this, Wellthy looked to Ambee's air quality data to provide personalized treatment plans and better allergy diagnoses using patients' real-time and historical environmental conditions like air quality exposures.

The need for better air quality measurement

From smog over cities to smoke inside the home, air pollution is a significant threat to health and climate. The World Health Organization (WHO) estimates that seven million premature deaths are caused by air pollution every year. Their data also shows that almost all of the global population (99%) breathe air exceeding WHO guidelines.

Long-term effects of air pollution include heart diseases, lung cancer, and respiratory diseases such as asthma and emphysema. Acute manifestations in chronic airway diseases also contribute to the worsening of existing conditions, deterioration of quality of life, and increased mortality risk.

These events are often related to external environmental factors.

Poor air quality can make asthma symptoms worse for people with respiratory diseases.

Humidity can be a problem for some people with asthma. It makes the air stagnant, trapping pollutants. When you breathe in humid air, it activates the nerves in your lungs that narrows and tightens the airways.

Hot weather, cold weather, thunderstorms, or sudden weather changes can all trigger asthma symptoms for some people.

Pollen is also a common asthma trigger, as fine particles can invade the lungs.

Wellthy's solution for their customers

Wellthy Therapeutics, in collaboration with Ambee, aims to achieve better diagnosis and create personalized treatment plans providing detailed information on a patient's past exposure to hazardous pollutants and allergens directly to the patient or even to the patient's physician if authorized.

Wellthy's solution for asthmatics also provides live notifications to patients about their local air quality, humidity, temperature, and pollen.

Air Quality Index (AQI) value with categorized risk levels (Good | Satisfactory | Moderately Polluted | Poor | Very Poor | Severe)

Humidity value with categorized risk levels (Good | Fair | Poor)

Temperature value with categorized risk levels (Good | Fair | Poor)

Pollen Data with categorized risk levels (Low | High | Very High)

Powered by Ambee's air quality API, the 'Asthma Weather Insights' feature gives users access to hyperlocal air quality data so they can better understand the air around them to minimize the exacerbation of asthma caused by poor air quality. The results of the collaboration are still yet to come however, we are looking forward to seeing the impact of Ambee's data on Wellthy's noble cause.

Where Ambee's APIs come in

Ambee's APIs aid Wellthy in seasonal allergy diagnosis and helps devise personalized treatment plans based on the individual's triggers, symptoms, profile, and lifestyle.

The Air Quality Index (AQI) provided by Ambee helps understand the state of air quality around the patients. Providing information about patients' real-time and historical hyperlocal environmental conditions allows care providers to make better decisions. It also assists care providers in providing research-based preventive care and health recommendations for their patients.

AQI Data Range from Ambee:

AQI values and corresponding ambient concentrations (health breakpoints) as well as associated likely health impacts for the identified eight pollutants are as follows:

AQI Category (Range)	PM_{10} (24hr)	PM (24hr)	NO (24hr)	O (8hr)	CO (8hr)	SO (24hr)	NH (24hr)	Pb (24hr)
Good (0-50)	0-50	0-30	0-40	0-50	0-1.0	0-40	0-200	0-0.5
Satisfactory (51-100)	51-100	31-60	41-80	51-100	1.1-2.0	41-80	201-400	0.5-1.0
Mandatory polluted (101-200)	101-250	61-90	81-180	101-168	2.1-10	81-380	401-800	1.1-2.0
Poor (201-300)	251-350	91-120	181-208	169-208	10-17	381-800	801-1200	2.1-3.0
Very Poor (301-400)	351-430	121-250	281-400	209-748	17-34	801-1600	1200-1800	3.1-3.5
Severe (401-500)	430+	250+	400+	748+	34+	1600+	1800+	3.5+

AQI	Associated Health Impacts
Good (0-50)	Minimal impact
Satisfactory (51-100)	May cause minor breathing discomfort to sensitive people
Mandatory polluted (101-200)	May cause breathing discomfort to people with lung disease such as asthama and discomfort to people with heart disease, children and older adults.
Poor (201-300)	May cause breathing discomfort to people on prolonged exposure, and discomfort to people to people with heart disease.
Very Poor (301-400)	May cause respiratory illness to the people on prolonged exposure. Effect may be more pronounced in people with lung and heart diseases.
Severe (401-500)	May cause respiratory impact even on healthy people, and serious health people, and serious health impacts on people with lung/heart disease. The health impacts may be experienced even during light physical activity.

About Ambee's APIs

Ambee's environmental data enables anyone, anywhere in the world, to understand their hyperlocal environment in real time. The datasets provided by Ambee are used to power decisions across continents, from startups to Fortune 500 companies. Learn more at: www.getambee.com

About Wellthy

Wellthy's mission is to advance health equity and access to digital care in all parts of the world. We deliver patient-companion solutions that leverage behavioral science mechanisms to deliver clinical and business outcomes at scale. We enable our partners to build and own next-generation digital solutions (DTx 2.0) through a single, commercially and clinically validated front-end on a regulatory compliant back-end. Learn more at www.wellthytherapeutics.com

More questions?

Contact us at contactus@getambee.com.