

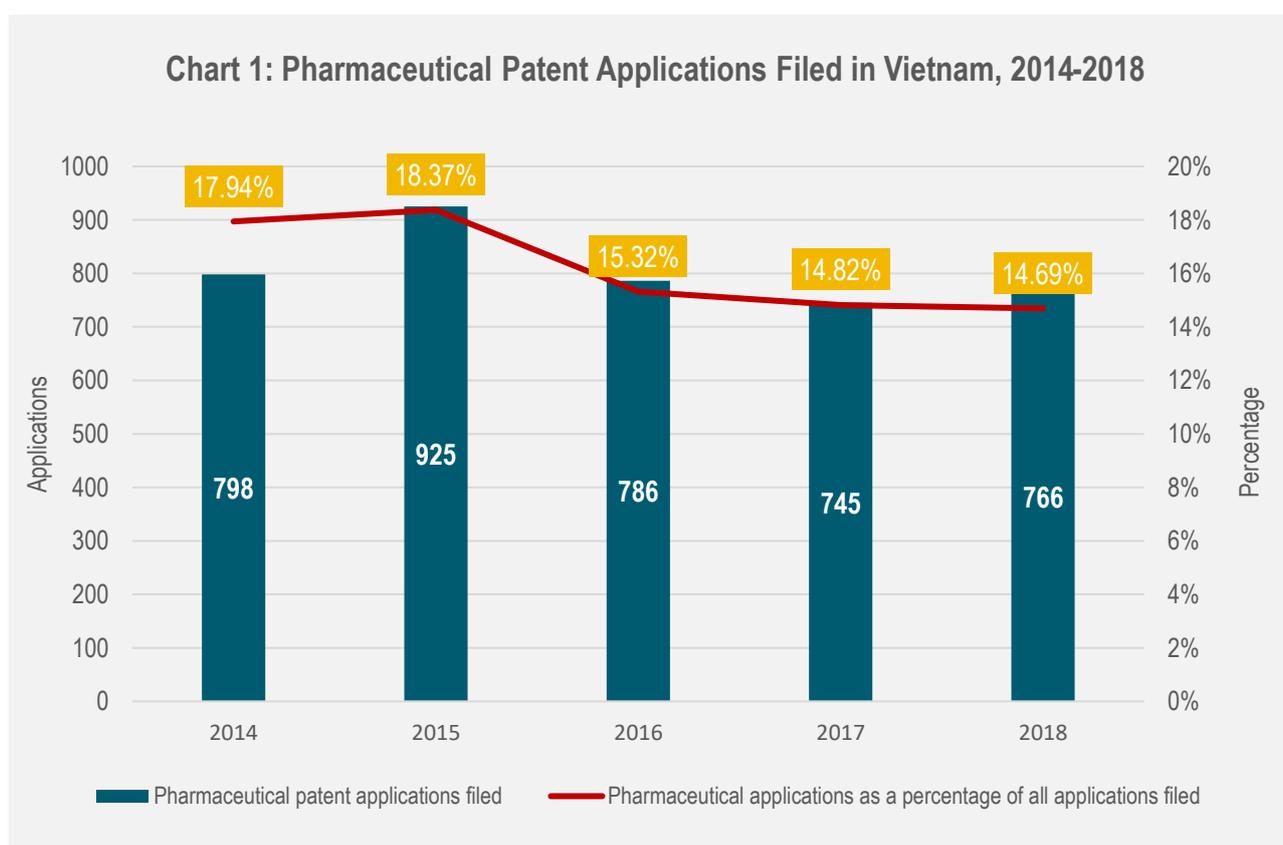
## Patent Filing Statistics in the Pharmaceutical Sector in Vietnam

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With the growth of Vietnam's economy and population, the country's pharmaceutical market has become increasingly important. Vietnam is classified by the IQVIA Institute as a "pharmerging" market—a developing country with a relatively low per capita income but strong market growth potential for prescription medication. According to statistics from the Drug Administration of Vietnam (DAV), the sector will continue to see double-digit growth for the next five years, offering many opportunities for development.

The statistics presented below on pharmaceutical patent filings in Vietnam reveal some trends, challenges, and opportunities in this important market.

### 1. Number of applications



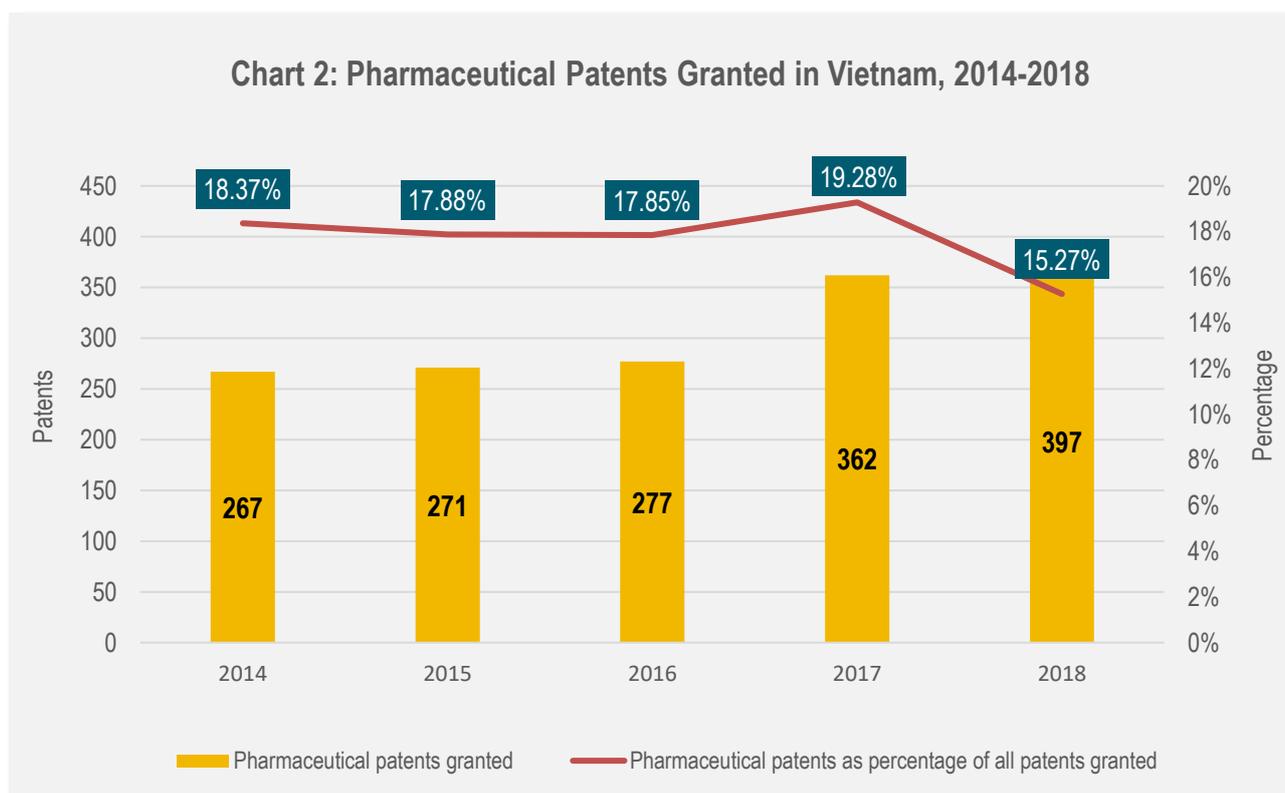
During the period 2014-2018, the number of pharmaceutical patent applications filed annually was relatively stable, with the exception of a spike in 2015, and accounted for about 16% of total patent application filings in Vietnam. In comparison with the statistics of PCT (Patent Cooperation Treaty) applications, 16% is a very high figure, indicating that the pharmaceutical sector in Vietnam is attractive to manufacturers of brand-name drugs.

Many factors are pointing toward increased consumption of pharmaceutical products in Vietnam: Vietnam is the 15th largest country in the world by population; living standards and household incomes are increasing; and in a rapidly growing economy, environmental protection sometimes lags behind industrial development, leading to an increase in the incidence of certain diseases. This growth is attracting investors and explains why the number of pharmaceutical application filings in Vietnam is high, and is likely to increase in the coming years.

Vietnam currently does not provide patent protection for use inventions—only for products and processes. In negotiations for the failed Trans-Pacific Partnership Agreement (TPP), the member states, including Vietnam, would have been required to provide protection for use inventions. The successor of the TPP, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) includes some provisions on use inventions that have not yet been applied, and it is not known when they will be applied. However, based on the global trend, it is possible that Vietnam will protect use inventions in the future.

Medical use inventions are popular in the pharmaceutical field and are protected in many countries. If use inventions were protected in Vietnam, it is expected that pharmaceutical application filings from foreign countries would increase dramatically.

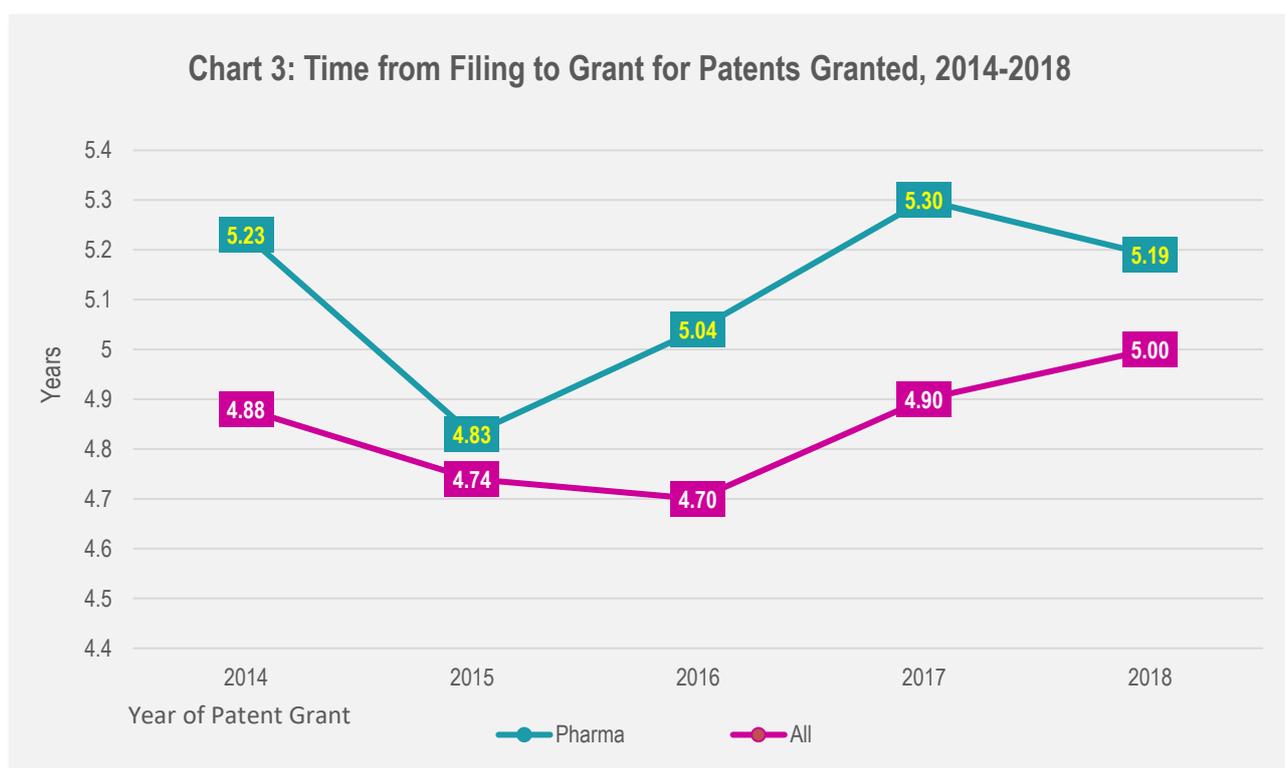
## 2. Number of patents granted



The number of pharmaceutical patents granted has risen each year. This is primarily due to increased efforts from the Intellectual Property Office of Vietnam (IP Office) to examine applications more promptly in order to clear its backlog.

However, the percentage of pharmaceutical patents granted in 2018 (as a percentage of total patents granted) was significantly lower than in any of the previous four years. One of the reasons is that in 2018 the IP Office focused on handling all outstanding applications that were filed before 2013 and not patentable.

### 3. Prosecution time

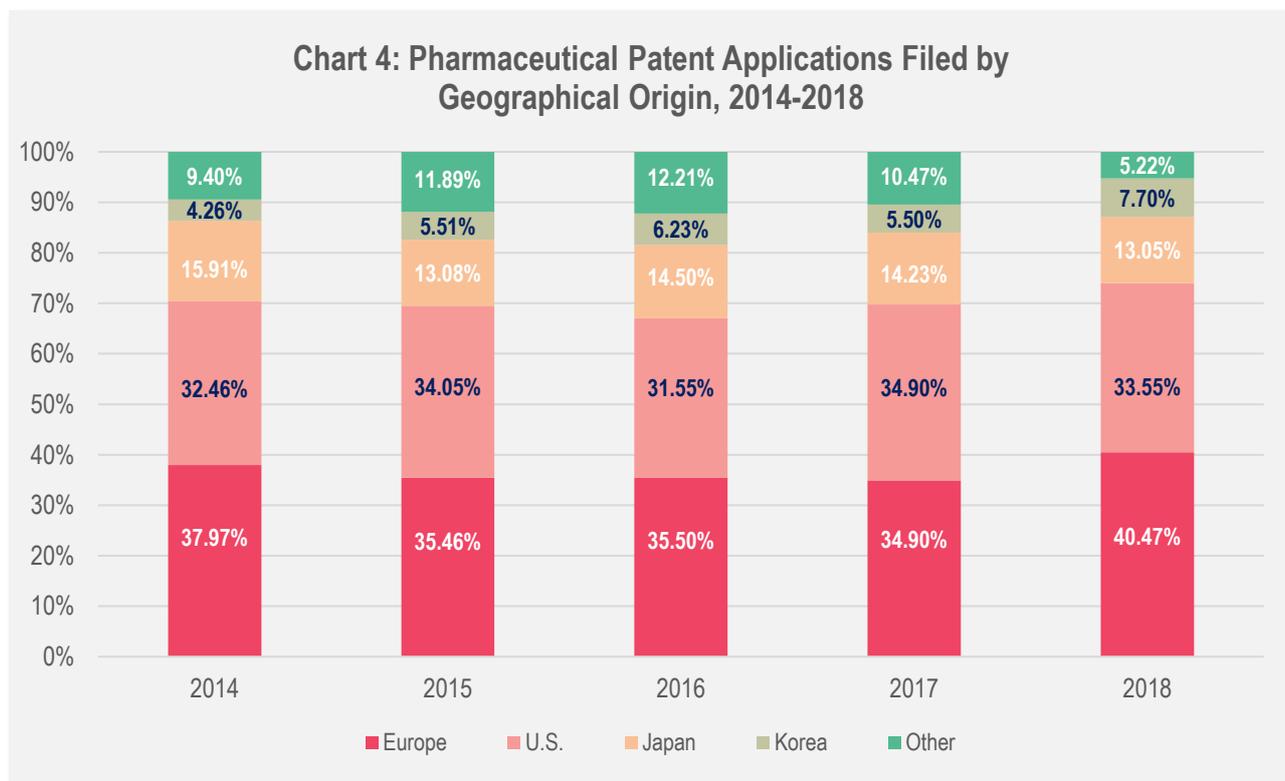


For patents granted within the 2014-2018 period, the average time from filing to grant for a pharmaceutical patent was about 5 years; a little longer than the average time for all patents. As the protection term of a valid patent expires 20 years after the filing date, about one-quarter of this time is tied up in waiting for the patent office to examine and grant the patent.

The IP Office has been actively trying to improve this situation, and the number of applications handled in 2018 was higher than the number in 2017. If this trend continues, the pending time in Vietnam will be shortened in the near future.

The IP Office has provided guidelines for patent examination in general, and intends to issue specific guidelines for pharmaceutical patent examination as well. It is also exploring new avenues for patent acceleration, such as the recently extended Patent Prosecution Highway (PPH) between the Vietnam IP Office and the Japanese Patent Office, and a new PPH pilot program with the Korean Patent Office. These measures could all help to significantly shorten the examination time for patents.

## 4. Geographical origin of applicants



For the period 2014-2018, Europe and the United States together accounted for two-thirds to three-fourths of all pharmaceutical applications filed each year. Although Japan consistently files a high number of patent applications in Vietnam, the number of these applications that are for pharmaceutical patents is modest in comparison to Europe and the United States.

Just as the number of pharmaceutical patent application filings in Vietnam has been stable recently, the top countries/territories have seen few dramatic changes in their application filings.

## 5. Diseases targeted

According to recent reports by the WHO, Vietnam's Ministry of Health, and local medical professional associations, some of the biggest threats to Vietnamese health come from cancer, cardiovascular diseases, diabetes, liver diseases, and neurological diseases.

**Cancer:** The rate of Vietnamese people suffering from cancer is on the rise. Vietnam ranks 99th out of 185 countries and territories with a cancer incidence rate of 151.4 cancer patients per 100,000 people.

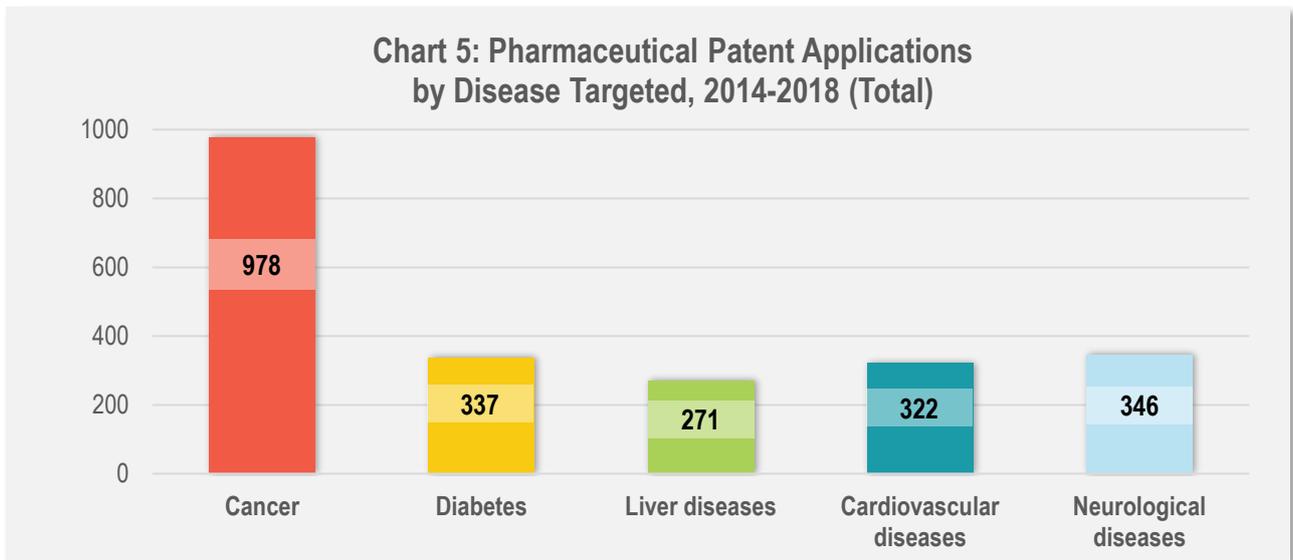
**Cardiovascular diseases:** Around 25% of the population in Vietnam now suffers from cardiovascular and hypertension diseases. Each year, there are around 200,000 deaths due to these diseases.

**Diabetes:** In Vietnam, about 5.4% of the population suffers from diabetes (more than 5 million people). This incidence rate has doubled in the past 15 years.

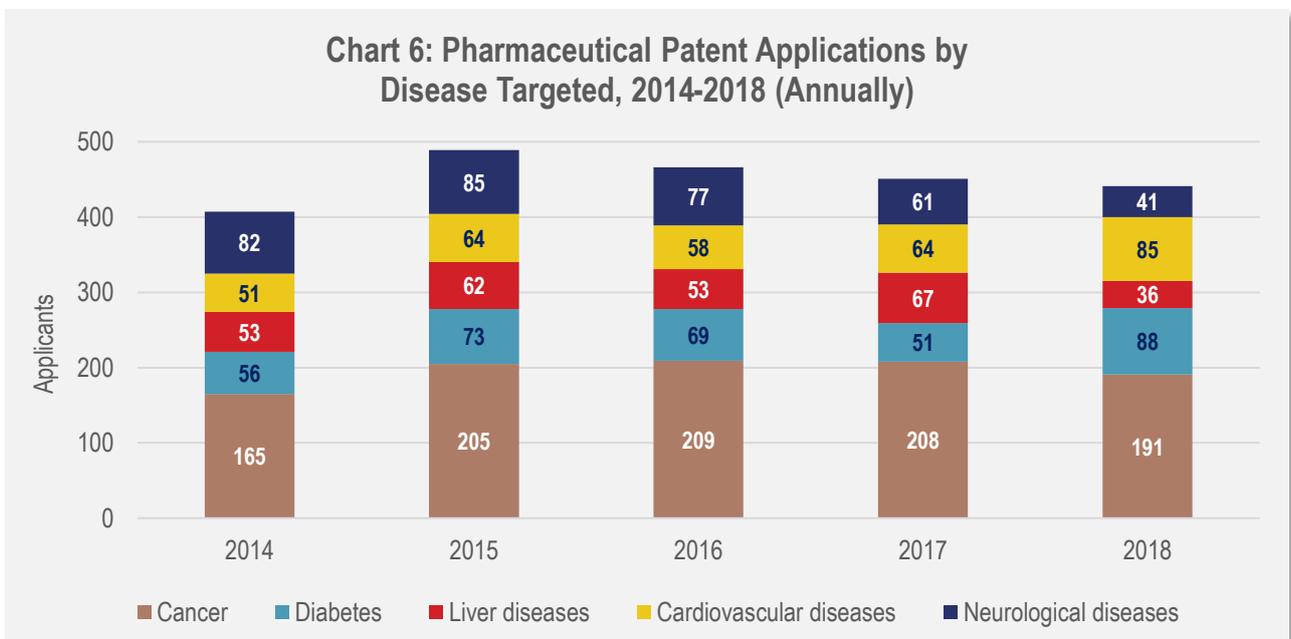
**Liver diseases:** On average, approximately one in every 10 Vietnamese people has hepatitis B. Each year, there are around 22,000 deaths due to liver diseases in Vietnam.

**Neurological diseases:** As much as 20-30% of the Vietnamese population suffers from neurological diseases. The rate is highest among children and the elderly.

More than half of all pharmaceutical patent applications filed in Vietnam during the 2014-2018 period focused on diagnosing or treating these diseases.



*Note: Diseases other than those shown above accounted for 1,766 applications (43.9%).*



The filing statistics show that cancer is the primary treatment target for pharmaceutical patents, with more than twice as many filings each year compared to any other disease category. Diabetes and cardiovascular diseases have shown a recent increase in the number of filings.



## Outlook

Foreign interest in the pharmaceutical market of Vietnam is apparent, as illustrated by the fact that pharmaceutical patent applications make up a large percentage of all foreign patent filings. However, the number of filings each year has the potential for even more growth.

It is likely that foreign pharmaceutical companies' concerns about the IP enforcement system in Vietnam have led them to be cautious in filing applications in Vietnam thus far. Now that Vietnam has become a member of the CPTPP and the EU-Vietnam Free Trade Agreement (EVFTA), the enforcement of patent rights in Vietnam should improve significantly, encouraging foreign pharmaceutical companies to increase the number of patent applications they file in this pharmerging market in the near future.