

RESEARCH PROJECT : COPD PREVALENCE IN PEOPLE WITH MENTAL ILLNESS

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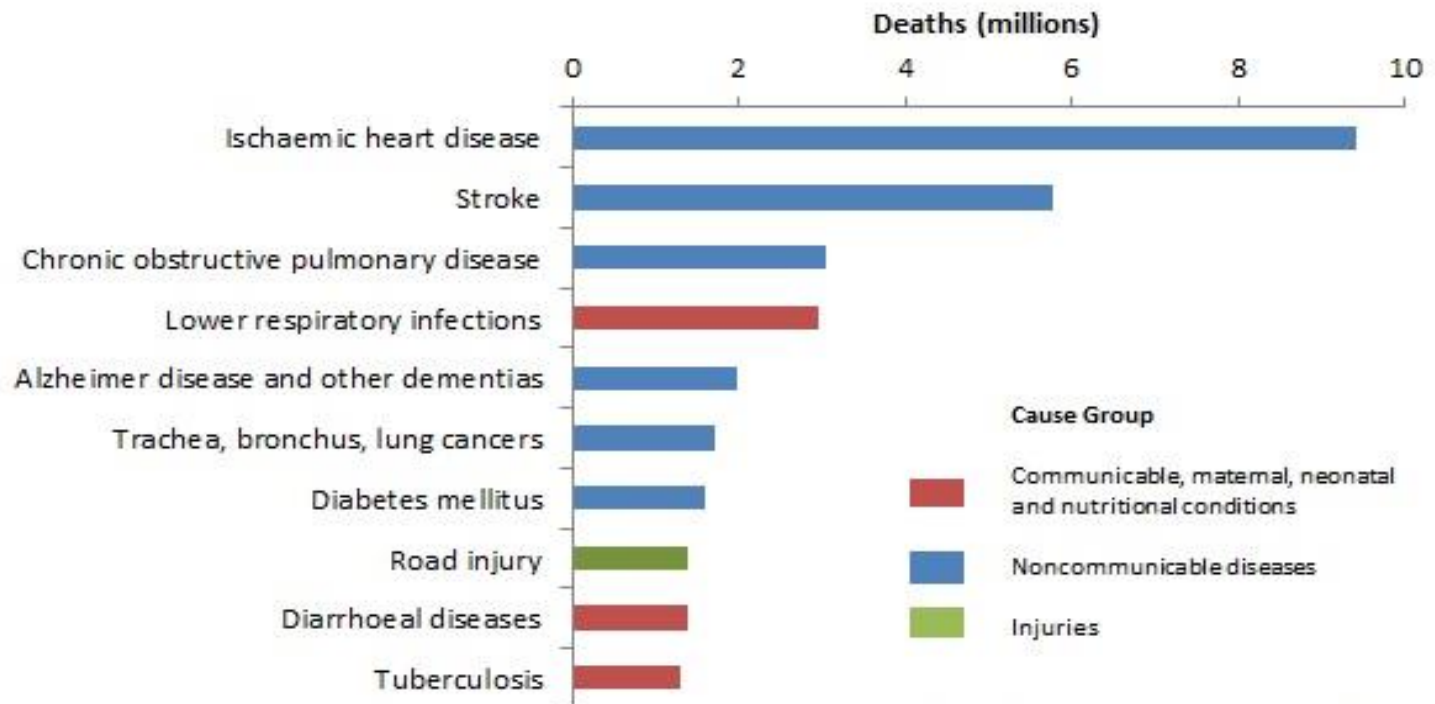
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Why COPD ?

Top 10 global causes of deaths, 2016



Source: Global Health Estimates 2016: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2016. Geneva, World Health Organization, 2018.

What is the benefit of screening in the psychiatric population?

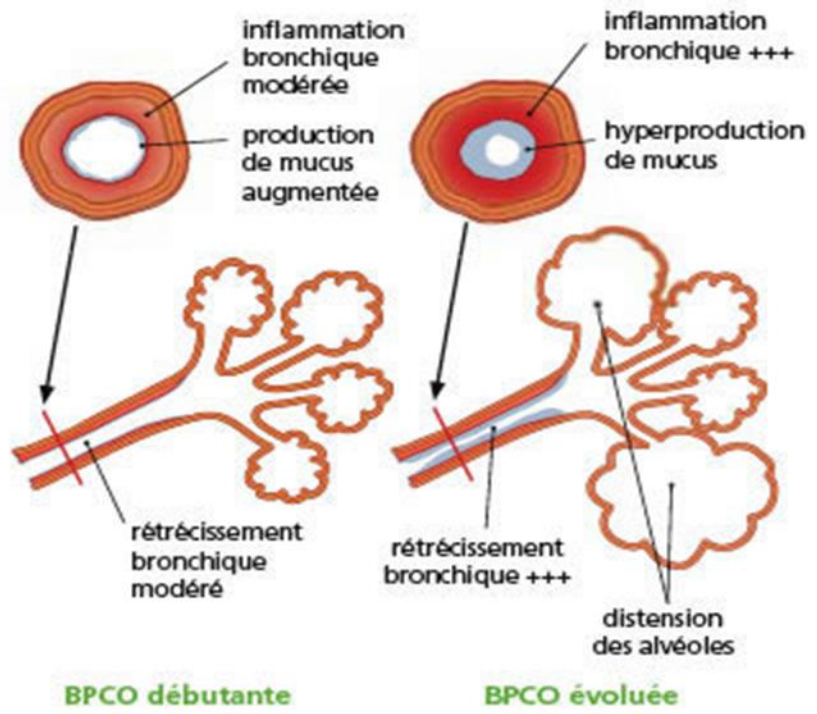
- People with psychiatric disorders (especially those with schizophrenia, agoraphobia, panic disorder and severe depression) are twice as likely to consume tobacco as the general population.
- For example, 66% of people with schizophrenia are smokers.
- In addition, smokers with psychiatric disorders smoke more cigarettes per day than those who have no mental disorder.
- As a result, tobacco-related illnesses are a leading cause of death for adults with psychiatric disorders. In addition, smoking increases the risk of suicide.
- Source: Spring B, Pingitore R, Mc Chague DE (2003) Reward value of cigarette smoking, comparatively heavy smoking schizophrenic, depressed, and nonpatient smokers. *Am J Psychiatry* 160 (2): 316-22.

Which comorbidities?

- Patients with COPD are 5 times more likely to have a cardiovascular disease and 3 times more likely to have a stroke than those without COPD. This link is even stronger in young people (35 -44 years) and, in particular, in those who did not smoke. "Overall, 40% of COPD patients have at least one of these vascular co-morbidities.
- High prevalence of snoring among subjects with COPD and the prevalence of obstructive sleep apnea and diurnal symptoms such as falling asleep or ease of sleep during daytime activities is 5.4% in the COPD population versus 2.3% for healthy subjects on the respiratory level.

Source : [Larsson LG, Lindberg A, Franklin KA, Lundback B. Obstructive Lung Disease in Northern Sweden Studies. Obstructive sleep apnoea syndrome is common in subjects with chronic bronchitis. Report from the Obstructive Lung Disease in Northern Sweden studies. *Respiration* 2001;68:250-5](#)

What is COPD?



Which are the causes of COPD?

- Smoking is by far the leading risk factor in developed countries: 30% of smokers whose intoxication exceeds 20 pack-years (1 packet per day for 20 years) will have COPD. This represents 400,000 cases in Switzerland.
- COPD affects adults over 45 and increases with age.
- Men are more affected than women.
- However, in the industrialized countries, the proportion of women affected increases, particularly because of the increase in female smoking and increased susceptibility to the disease (their bronchi are more sensitive).

Which are the causes of COPD?

- Adverse living conditions and malnutrition exacerbate the risk of developing severe COPD.
- Neonatal antecedents (prematurity), passive smoking during pregnancy, genetic factors, and respiratory infections in childhood appear to be contributing factors.
- Pollution is an aggravating factor of COPD, be it air pollution, domestic or occupational pollution.

Which are the causes of COPD?

Genetic Factors :Even if an individual has never smoked or been exposed to pollutants for an extended period of time, they can still develop COPD. Alpha-1 Antitrypsin Deficiency (AATD) is the most commonly known genetic risk factor for emphysema². Alpha-1 Antitrypsin related COPD is caused by a deficiency of the Alpha-1 Antitrypsin protein in the bloodstream. Without the Alpha-1 Antitrypsin protein, white blood cells begin to harm the lungs and lung deterioration occurs. The World Health Organization and the American Thoracic Society recommends that every individual diagnosed with COPD be tested for Alpha-1.

What are the symptoms of COPD?

They are common: a chronic cough often in the morning when waking up "cough of the smoker", expectoration, shortness of breath on the stress put on account of a lack of training, excess weight, evolution is slow and insidious over many years, the symptoms become troublesome in everyday life when lung lesions are important.

Which screening ?

- <https://www.liguepulmonaire.ch/nc/fr/maladies-et-consequences/bpco/diagnostic/test-de-risque-bpco.html>

What diagnosis?

Spirometry: easily, painlessly and in a matter of minutes. It measures respiration and can detect obstructive pulmonary diseases such as COPD

Why is it important to get tested?

Leaving symptoms misdiagnosed, untreated, or undertreated may cause them to worsen faster than if they were treated with proper medication and therapy. Many adults are incorrectly diagnosed with asthma. Providing a proper diagnosis means individuals will receive the right treatments and follow up monitoring. There's no cure yet for COPD but treatments are available to help individuals live better.

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Tobacco and mental illness

- **People with mental illness :**

- Smoke more cigarettes than general population (de Leon et Diaz 2005)
- Prevalence of tobacco use X 2 or 3
- Vulnerable population clearly identified by the tobacco companies : 44% of cigarettes in USA are smoked by persons with mental illness (Lasser and al. Jama 2000)
- Anxiety, depression and suicidal risk are increased with tobacco use (A.Dervaux and al., 2004) (I.Berlin and al. 2013)

Tobacco and mental illness

- **Increased risk of mortality :**
 - Cardiovascular disorders : X 6 (Goff and al. 2005)
 - Respiratory disorders : X 5 (Goff and al. 2005)
- **Persons with mental illness suffer :**
 - COPD : 22,6% vs 7,5 % gen.pop , 40 +
 - Chronic bronchitis : 9,7 % vs 6,1% in gen.population
 - Emphysema : 7,9 % vs 1,5 % in gen. population

(Himmelhoch S, Lehman A, Kreyenbuhl J, et al. Prevalence of chronic obstructive pulmonary disease among those with serious mental illness. Am J Psychiatry 2004;161:2317—9.)

Tobacco and mental illness

- People with mental illness die 20-25 years earlier than people without mental illness :
- They are somatically more vulnerable :
 - Physical inactivity
 - Poor nutrition
 - smoking
 - Indesirable effects of anti psychotics
- **However : People with mental illness**
 - are not helped in smoking cessation
 - rarely have screening for COPD
 - And they wish to stop smoking as much as the general population (Aguilar Mc and all , 2005)

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Our project:

Study design:

Objective: Individual with serious mental illness have elevated smoking rates and smoking is significant risk for COPD. Our descriptive study aim is a simple description of the phenomena in order to know what exists.

Method: First prospective observational study on all patients who will be admitted to our service the next six months.

Observing general state of health, psychiatric and somatic diagnosis, smoking habits, COPD screening by self-administered questioning, psychiatric and somatic treatments.

- Results and conclusions: expected for june 2019 in order to see the interest in continuing by comparing our sample to a randomly selected matched subset of comparison subjects.

Thank you for your attention !