SEVERE CHRONIC RESPIRATORY DISEASES IN FRENCH SELF EMployed TRADES AND SERVICES: A CROSS SECTIONAL STUDY.

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Background
Epidemiologists predict that, in 2020, Chronic Pulmonary Diseases (CPD) will be the third cause of world wide mortality if nothing is done. Domiciliary Oxygen Therapy (DOT), which provides mortality and morbidity benefits for patients, is a surrogate of the gravity of CPD. Occupations associated with CPD are well known (e.g.: professional drivers, wood workers, bakery workers, hairdressers, garage workers, dental prosthetist or workers of the construction or textile sector) [1-7]. The aim of our study was to focus on a particularly less monitored population: the self-employed trades and services population, to assess if the occupational sector plays also a role on the CPD and/or the DOT consumption occurrence. For that purpose we data mined the self employed workers and small business owners population covered by the French Régime Social des Indépendants (RSI), a legal mandatory statutory health care reimbursement scheme for independent workers.

Methods
For that purpose, from the RSI databases, we implemented a cross sectional study on the population covered in 2010 by the RSI. The inclusion criteria were first to benefit of a reimbursement in 2010 for at least one health care provider whichever it was, second to have his principal residency in the south east region of France named Provence Alpes Côte d’Azur (PACA) and third to be a worker or, if retired or disabled, a former worker in trades and services. The exclusion criteria and the analysed population are shown in the figure below. The dependant variable for each subject was: -either the enlistment to benefit of exemption of co-payment (i.e.100 percent reimbursement level [8]) for a long duration disease with a CPD motive (RSI data protected by confidentiality) -or the reimbursement of DOT (RSI billing data) -or both of the two conditions. The independent variables were: age, gender, occupation or former occupation if retired or disabled at the time of the cross section, living in a rural or urban area, and living in a high unemployment rate area. A multivariate logistic regression analysis was used for adjustment on confounding factors.

Conclusion
153 334 subjects were analysed; their average age was 49 (mini 30, maxi 90) with 30% of women; 47% worked in services and 53% worked in trade.
Our key findings show that, in an independent workers population (self employed and small business owners in trades and services), CPD and/or DOT are strongly associated with occupation as it has been already shown for labourers and employees before. All the more our results are conservatives because of the latency between the occupational exposure and the full risk realization. These findings strongly justify the fact that the RSI health policy makers have prioritized, since several years, preventive actions on occupational exposure factors. The most concerned occupations were two fold more at risk (i.e bakery workers, tobacconists, and dental prosthetist); consequently they should be targeted for prevention messages diffusion on the use of anti-dust or anti smoke protections. Salaried workers already receive prevention messages but independent workers should justify the same attention from government agencies and health services. They should not let them aside of such preventive interventions. For the tobacconists, the French law forbidding smoking in public is too recent for having yet corrected the tendencies.