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NATIONAL NETWORK
FOR MONITORING AND
PREVENTION OF
OCCUPATIONAL
DISEASES (RNV3P)

2021 Annual Report



The National Network for Monitoring and Prevention of Occupational Diseases (RNV3P) is a grouping of occupational health professionals that includes all 28 occupational and/or environmental disease centres (CCPP(E)s). It works to detect and prevent risk situations, in order to identify diseases suspected of being potentially work-related, independently of any concerns about compensation or redress by the social security schemes. The occupational health problems identified are recorded in a shared database and coded according to several national and international nomenclatures, namely the International Classification of Diseases (ICD-10), French Classification of Activities (NAF 2008) and International Standard Classification of Occupations (ISCO 2008). Risks to which workers have been exposed are coded according to a nomenclature called the "Occupational Exposure Thesaurus" (TEP).

Coordinated by ANSES, the RNV3P also includes five other national partners (CNAM, INRS, CCMSA, SFMT and *Santé Publique France*)¹. The network is governed through a steering committee, an operational unit and working groups (on Emerging issues, Data exploitation methodology & strategy, and Occupational psychopathologies).

¹ CNAM: National Health Insurance Fund; INRS: National Research and Safety Institute; CCMSA: French Central Fund for the Agricultural Mutual Insurance Scheme; SFMT: French Society for Occupational Medicine

Last year saw publication of the implementation texts for decree no. 2019-1233 of 26 November 2019 on the regional occupational and environmental disease centres (CRPPEs): the ministerial order of 16 February 2021, the circular of 24 December 2021, and the instruction to the regional health agencies (ARSs) on calls for applications and the timetable. The decree stipulates that a CRPPE should be nominated in each region. Where there are already several CCPPs in a region, the other CCPPs will become part of, and coordinate with, the regional centre. Besides carrying out expert appraisals, training, teaching and research in occupational health, the regional centres will also take responsibility for people suffering from diseases with a suspected link to the environment. The call for applications was to be issued before 01/03/2022 with an application deadline of June 2022. The CRPPEs are scheduled to be nominated no later than the end of the third quarter of 2022, for a period of five years. Currently, there are no CCPPs in the French overseas regions, Bourgogne-Franche-Comté or Corsica.

KEY FIGURES

Over **40**

extractions from the RNV3P database carried out for the CCPPs, ANSES, the other RNV3P partners or the RNV3P working groups.

18

clinical cases and 74 risk situations identified from the literature monitoring and discussed within the Emerging issues WG, resulting in 13 analyses of the RNV3P database and seven information messages on occupational risk situations sent to the CCPPs.

3

clinical cases posted on the OccWatch platform

HIGHLIGHTS

Specifications drafted for the information system (IS) upgrade

The redesign of the IS has two main objectives: to better identify the different activities of the CCPPs, and to reduce data entry time while improving the application's performance. This is because the RNV3P's current IS is old and uses obsolete technology, resulting in frequent slowdowns and failures. In addition, the growing environmental component of consultations, encouraged by the nomination of the CRPPEs, means that changes are needed to the IS to enable the characteristics of environmental exposure to be recorded.

A service provider, Capgemini, assisted ANSES in drafting the specifications for this upgrade, supported by experts from the RNV3P's Data exploitation methodology & strategy working group.

The call for tenders to identify the service provider that will carry out the IS redesign is expected to be issued in the first half of 2023.

Occupational Exposure Thesaurus (TEP)

In March 2018, work began on renovating the Occupational Exposure Thesaurus, with the aim of ensuring that all occupational health stakeholders have a common language for describing occupational exposures, available in a freely accessible tool. This major project is being led by ANSES and involves representatives of the CNAM, INRS, MSA, SFMT, *Santé Publique France* and Présanse, as well as doctors from inter-company health services and the CCPP(E)s. Two of the nine classes in the TEP were updated in 2021: "Biomechanical factors" and "Quality of the work space". A specification was also drawn up for the development of an IT tool to make the thesaurus available.

R&D agreement on developing a method for determining causality

ANSES's Scientific Committee on work and the environment had recommended that the methods for determining causality used in the five vigilance schemes administered by the Agency be scientifically validated and published in a scientific journal. A 24-month research and development agreement (CRD) was signed with the university hospitals of Bordeaux and Rennes in September 2020, in order to create a method for assessing the causality of exposure to a substance or environment in the occurrence of a disease or a group of syndromes, whether this exposure occurs in an occupational or non-occupational setting. Currently, experts estimate this causality empirically. Acute, sub-acute and chronic conditions will be considered.

The first step in the CRD was to conduct a review of the scientific literature in order to identify validated and published methods for determining causality. This identified 39 "general" methods and seven "specific" methods (for liver damage and musculoskeletal disorders) in the following areas: pharmacovigilance, occupational and environmental health, toxicovigilance, nutrivi-gilance and cosmetovigilance. The next step will be to build an algorithm for determining a causality score. This will be tested (and adapted if necessary) for different types of disease: solid cancers, fertility disorders, pregnancy diseases and birth defects, asthma and allergies, musculoskeletal disorders, haematological disorders, psychopathologies, systemic diseases, respiratory diseases.

R&D agreement on developing a prototype for the visualisation and spatial analysis of occupational health data for vigilance purposes

This CRD, signed in 2018 with the Grenoble CCPP and the geomatics research team (Steamer) of the Grenoble IT laboratory, has led to development of a functional prototype of the OH-GEOVIS geographical data interface. This tool is currently exploring geographical data, INSEE data, and 19 years of occupational health data from the RNV3P.

The close cooperation of the different stakeholders is one of the key elements that has enabled high-quality results and helped fully demonstrate the tool's potential:

- in capitalising on the data collection work carried out beforehand by the staff of the CCPP(E)s, in particular drawing on the expertise of the RNV3P;
- in the support offered for a flexible exploration of occupational health data gathered from the regions;
- in the production of knowledge and cartographic figures designed to guide public health

decision-making.

Besides its application to RNV3P data, the underlying OH-GEOVIS geographical data interface provides both a conceptual and concrete framework for accommodating other sources of information of interest in occupational health. Looking further ahead, the spatially projected RNV3P data could contribute to occupational health diagnosis on a regional basis once additional data have been integrated into the interface. The CNAM's data on claims had already been provided as part of an agreement, but it was not possible to integrate them in the time frame of this CRD. Experiments should be carried out with occupational health services, which are ultimately the main prevention stakeholders throughout the company network. This will enable them to take advantage of an overall spatialised view, not only of their own data, but also those of the CCPPs and the occupational health and pension insurance funds (CARSATs).

KEY DATES



Outlook and projects initiated

Tutorials providing training in data entry and coding

Members of the CCPP(E)s expressed a need for training tools for coding and data entry in the RNV3P, especially in view of the turnover of occupational medicine interns and consultation staff. As it was not possible to meet this need by organising face-to-face or even remote meetings, ANSES's RNV3P unit undertook a programme to develop tutorials, comprising segments lasting a few minutes each on a specific theme (coding of a patient file, coding of causality, etc.), which will be available in the information system. Priority is given to tutorials that present the data being entered directly in the network interface, with a reminder of the coding rules and the formalism of data entry. The tutorials are intended for new staff and will not be specific to an occupation, thus being equally suitable for training doctors, interns, secretaries and nurses. In total, more than 15 tutorials are planned.

In 2021 working groups were set up, and a working method and timetable were drafted. Nine doctors from six CCPP(E)s volunteered.



Bone and joint disorders encountered in lorry drivers

Work continued in the WG made up of experts from the four occupational health surveillance/vigilance schemes: 1) the occupational diseases programme (MCP) run by *Santé Publique France*, 2) the EVREST scheme run by a scientific interest group, 3) the RNV3P, and 4) the SUMER survey implemented by the Directorate for Research, Studies and Statistics (DARES). After studying the occupational health problems of home helps, it will now look at musculoskeletal disorders suffered by drivers, analysing CNAM data on occupational accidents and diseases. This is because applications for recognition of occupational diseases relating to musculoskeletal disorders submitted by this population are often sent to the Regional Committee for the Recognition of Occupational Diseases (CRRMP) because they are unable to benefit from the system of occupational disease tables.

Other work

Occupational asthma in women and comparison with data on men

Asthma is the most common cause of occupational respiratory disease in industrialised countries. Epidemiological data on gender predominance in the population of workers with occupational asthma (OA) are contradictory, with the most recent literature suggesting a predominance in women.

The aim of this retrospective study of data from the RNV3P was to compare, by sex, the exposure types and industry sectors within a French population of workers who had consulted a CCPP(E) for work-related asthma.

Only exposure cases where the clinician had determined that causality was moderate or high were selected. Between 2001 and 2018, 8385 cases of OA (ICD-10 codes J45, U05 and J68) were recorded, mostly in men (54.5%); 13.5% involved asthma related to irritant products. A downward trend in the number of OA cases was observed over the period. Women with OA were significantly more likely to work in hairdressing or hospital activities, and were mainly exposed to quaternary ammonium compounds, cleaning products and detergents. Men worked significantly more often in the bakery and construction sectors, and were mostly exposed to flour dust, cyanates and isocyanates.

occupational exposure and industry sectors. It seems necessary to consider the specific features of OA in both sexes in order to quickly establish a link between exposure, an industry sector, and the onset or aggravation of asthma, in order to recommend the necessary preventive measures.

Continued work on updating the Occupational Exposure Thesaurus (TEP)

As part of a new request from the Directorate General for Labour, work to update the TEP will continue in 2022 and 2023 on two widely used TEP exposure classes: "Chemical agents" (which has more than 2300 descriptions) and "Physical agents" (about 100 descriptions). The "Organisational, interpersonal and ethical factors" class, the new "Quality of the work space" class and the accentuation of all the descriptions have been added to the 2022 version of the TEP, which has been made available to the partners.

"Organisational, interpersonal and ethical factors" class of the TEP

The "Organisational, interpersonal and ethical factors" class was overhauled as part of the TEP WG's partnership work, mainly in order to simplify this class and make it easier to use. Work began by verifying inclusion in the TEP of the risk factors identified in 2011 by the expert panel on statistical monitoring of psychosocial risks at work in the "Gollac report" (the benchmark in this area). New or missing exposures were added, including several hazards associated with teleworking, which has become much more widespread since the pandemic, as well as "Work in health crisis situations", for the same reason. Descriptions that were too long were removed, and those involving several exposures were modified to improve their accuracy. The tree structure itself was not fundamentally altered, apart from the "Working relations and violence" subclass (insertion of descriptions related to a lack of recognition, improvement of the precision of descriptions related to internal or external violence). Lastly, the former subclass "Other multiplication factors" was changed to "Psychosocial risk multiplication factors", in order to code situations that compound psychosocial risks (e.g. socio-economic insecurity, legal claims, etc.). This class is particularly used to characterise exposure related to psychopathologies. In the future, a document clarifying the meaning of certain descriptions or giving examples of use will provide coding assistance to users.

Transformation of RNV3P working groups into ANSES expert groups

The RNV3P has working groups whose members contribute their expertise to analysing the data in the shared database and detecting emerging occupational diseases or risks (through discussions of unusual clinical cases and articles published in the scientific literature). Considering that these experts speak in their own name and advise the Agency on occupational health risks as "knowledgeable individuals", the RNV3P steering committee noted the relevance of gradually transforming these working groups into ANSES expert groups, i.e. groups meeting the standards of the charter for health-related expert appraisal (call for candidates, appointment *intuitu personae* for a three- or four-year term, requirement to file a public declaration of interests and report any new interests during the term of office, as well as compensation for participation in the expert appraisal work). A call for applications to form the Emerging issues WG was therefore issued in late 2021, and the WG will meet for the first time in June 2022. The call for applications concerning the transformation of the RNV3P's Data exploitation methodology & strategy WG will take place in the second half of 2022, and that for the Occupational psychopathologies WG at the end of 2022. On the other hand, the working group leading renovation of the occupational exposure thesaurus, made up of representatives of the RNV3P partners speaking on behalf of their respective organisations, will not become an ANSES WG.

Main publications

Chauvet C., Andujar P., Letheux C., Nourry N., Serres N., Verdun-Esquer C., Bloch J., Méthodologie de mise à jour d'un thésaurus des expositions professionnelles, *Références en santé au travail*, n° 168, décembre 2021

Matrat M., Gain M., Haioun C., Fabien Le Bras, Nisse C., et al. Development of a Questionnaire for the Search for Occupational Causes in Patients with Non-Hodgkin Lymphoma: The RHELYPRO Study. *International Journal of Environmental Research and Public Health*, MDPI, 2021, 18 (8), pp.4008. (10.3390/ijerph18084008). (hal-03273719) <https://hal.archives-ouvertes.fr/hal-03273719>

RNV3P team within ANSES's Health Alerts & Vigilance Department (DAVS)

Juliette BLOCH
Director of the DAVS

Agnès BRION
Executive Assistant

Claire CHAUVET
Occupational Health Research
Officer

Serge FAYE
Biostatistician

Lynda LARABI
Coordinator & IT specialist

Natalie VONGMANY
Occupational Health Research Officer

Sergey ZHIVIN
Project Officer for Emerging issues in Occupational
Health

Partners





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FRENCH AGENCY FOR FOOD, ENVIRONMENTAL
and Occupational Health & Safety

14, rue Pierre et Marie Curie
F94701 Maisons-Alfort cedex

www.Anses.fr@Anses_fr

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