



The PIPAH Study Newsletter

January 2019



The last year has been an important year for research studies. The implementation of the General Data Protection Regulation (GDPR) in May had wide-reaching implications for research across the UK and Europe. On a smaller scale, the study's presence internationally has increased as we have now contributed data collected by the PIPAH study to three international collaborative projects. At the same time, the PIPAH study's own research programme has developed further using the data we have collected over the past few years. You can read more about these in the Newsletter below.

Why are we interested in pesticides?

The PIPAH study is trying to better understand the health problems that may occur with regular pesticide use, and how to keep people who use these safe and healthy at work. The use of pesticides is very important to our lives in many ways, and we are really keen to make sure that when they are used, they are used safely.

Our sixth year.....

We had a wonderful response to our invitation to complete the Respiratory Health and Pesticide Use Questionnaire in January 2018. Nearly 2600 study members returned completed questionnaires and we are very grateful to everyone who took part. These data provide a valuable snapshot of respiratory health among people who use, or have previously used, pesticides in Britain. We are still busy analysing the data we collected, but we have included some early results in this Newsletter. We plan to write a more detailed manuscript, which we will submit for publication in a peer reviewed journal. Once published, the article will be freely accessible online and we will put a copy on our website. We will also present the work at relevant conferences and meetings and provide an update in next year's Newsletter.



The Buxton laboratory

The questionnaire we have sent with this Newsletter represents another milestone in the PIPAH study. It has been six years since the PIPAH study started and so it is time to invite you to update the information you provided on joining the study. Your job, health, diet and lifestyle can all change over time, and so it is important that we keep this information up-to-date. This questionnaire is similar to the one you completed on joining but we have removed the sections that are not needed at this stage of the study.

The General Data Protection Regulation (GDPR)

The General Data Protection Regulation (GDPR) came into force in May 2018 and had wide-reaching implications for research across the UK and Europe. The PIPAH study complied with the terms of the previous Data Protection Act. Because of this, the study was already compliant with most aspects of the GDPR before it was implemented. The main change we have made is to ensure that we are clear about the legal basis for processing your data. To do this we have updated the PIPAH study website and study documentation. The website includes a link to a webpage, which describes how we process data (the 'privacy statement'). The webpage can be accessed at <http://www.hse.gov.uk/privacy.htm>. If you would like to learn more about this, we would encourage you to take a look at the study website (<https://www.hsl.gov.uk/resources/major-projects/pipah>) and follow the link to the Privacy Statement.



International collaborations

An important way of making sure that the data we collect in the PIPAH study has the biggest impact is to work with other researchers. In the past year we have been working on three different international collaborations. We reported on two of these in last year's newsletter. The first of these collaborative projects was established under the AGRICOH consortium of agricultural studies (<http://agricoh.iarc.fr>). Its aim is to study the amount of respiratory disease, and chronic obstructive pulmonary disease (COPD) in particular, which occurs among people who work in, or have a spouse/partner who works in, agriculture. We contributed tables that contained the data needed for their analysis. Altogether the project leader has assembled information from 18 studies from around the world, covering over 200,000 men and women. The information collected has been analysed and a paper describing the findings is in its final stages of editing.

The second collaboration, the IMPRESS project we reported on last year, aims at improving the methods of assessing someone's exposure to pesticides. The lead organisation for this project is the Institute of Occupational Medicine (Edinburgh) and the other members of the collaboration are the University of Manchester, the Institute of Risk Assessment Sciences (Utrecht, Netherlands) and the Health and Safety Executive. If you are interested in reading more about this project, we can recommend looking at the project website (<http://www.impress-project.org/>). The website includes a short overview of the project as well as copies of conference and other publication materials. In the last year the IMPRESS project has made good progress. A major

review of the methods previously used to assess exposure to pesticides is nearly finished. The findings will be summarised in a publication, which will be freely available online. Over the past year a lot of effort has also been put into setting everything up for the data collection phase of the project. All the materials we need, such as survey questionnaires, and the methods of data collection have been finalised. We have obtained research ethics approval for the data collection and so this phase of the project is nearly ready to go. As mentioned in last year's newsletter, the PIPAH study team will be contacting a number of members of the PIPAH study to invite them to take part in this project. If you receive this invitation to participate in the IMPRESS project, you are of course free to choose whether or not you would like to take part.

During the last year we have also agreed to contribute to a new AGRICOH consortium project. The lead organisation for this project is the Bordeaux Population Health Research Centre, based at the University of Bordeaux in France. The project is still at an early stage, but it aims to study the occurrence of neurological conditions among men and women involved with agriculture. The PIPAH study will contribute tables summarising the information needed for the project. We anticipate that the results from this project will be ready for publication during the latter part of 2019.

We would like to reassure you that the information we share with other researchers is completely anonymous. No personal data are shared and no individual can be identified in the summary tables we contribute to the project.

Cereals 2018

Cereals 2018 was back at Chrishall Grange near Duxford in Cambridgeshire and the PIPAH study shared a stand there with NRoSO. We met many PIPAH study members and had some interesting discussions. One topic which came up is how to make it easier for study members to complete the questions we ask about pesticide use. Although we ask only for estimates and have reduced the questions to 'main areas of pesticide use' rather than specific pesticides, it can take some members a while to put their estimates together. We discussed several options, but in the end thought that including a note in the Newsletter about the following year's questionnaire would suit most members. Anyone who thinks that they might like to complete the following year's questionnaire can then decide if they would like to keep a tally over the year of the days and hours they work in the different areas of pesticide use or if they are happy to make an estimate at the time. We have put a document on the PIPAH study website (<https://www.hsl.gov.uk/resources/major-projects/pipah>) that you could download and use for this. We give more information about the 2020 questionnaire in the 'What's next?' section.



Behind the scenes....

You may remember completing quite a lengthy questionnaire about pesticide use in January 2017. Over the past year we have continued using the information from that questionnaire to develop a method for estimating your use of pesticides without having to ask you such detailed questions. Working with the experts at Fera Science who manage the annual Pesticide Usage Surveys (<https://www.fera.co.uk/chemical-regulation/post-market-stewardship/pesticide-usage-survey>), we now have a Crop Exposure Matrix method for estimating a person's use of pesticides. Once we have fully tested it, we will be in a position to apply it to specific research questions.

The questionnaire accompanying this Newsletter covers your health, a wide range of factors that can affect your health, and your main areas of pesticide use. The section on pesticide use is included in all of our questionnaires so that we can keep up with any big changes in your work with pesticides. Because the main objective of this year's questionnaire is to update the information you gave us on joining, it includes similar questions to the ones you completed then. This includes questions on your general health, diet and physical activity. We have added two new health-related sections: one, called the EQ5D (<https://euroqol.org/>), is used internationally as a measure of overall health, and the other is the Office for National Statistics measure of personal well-being (<https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing>). There are many advantages in adding widely used question sets into the questionnaire, but one of them is that we can compare our study members as a group with other occupational groups or with the British population as a whole.

Some of you may have spotted that our contact details have changed. The PIPAH study is managed at HSE's Health and Safety Laboratory in Buxton. In 2013, when the PIPAH study started, the Health and Safety Laboratory was an agency of the Health and Safety Executive (HSE). Now, the Health and Safety Laboratory is a fully integrated part of HSE. Apart from our contact details, this change in the Laboratory's status has not affected the PIPAH study or its management. But please make a note of the new contact details, in case you ever need to get in touch with us.

What's next?

The first target this year is to finish the Crop Exposure Matrix, which we have been working on. This will be a key tool in assessing someone's exposure to pesticides. Most of the work on this has been completed. The only outstanding task left is to test it. We have compared it with the data we collected as part of the PIPAH study, but we also plan to use the findings from the IMPRESS project to check our results. So the final step in developing this tool will have to wait until these findings are available.

In this newsletter we have included some early results from the analysis of the respiratory health information we collected in January 2018. It is a really interesting data set and the full analysis inevitably takes time. Once we have completed the analysis, we will submit the results for publication in a peer reviewed journal so that they are freely available. Our study medical officer is also planning to present the results at a major international conference on occupational health, which will be held in New Zealand later this year.

When we have completed all the analysis, writing and presentations we will safely store the data. At some point in the future, we may ask you the same questions on respiratory health again. We will then be able to investigate changes in respiratory health over time by comparing the newly collected information on respiratory health with the 'old' 2018 information. This will provide another and again unique aspect of the respiratory health of men and women who use or previously used pesticides at work.

In January 2020 we will invite you to complete a short questionnaire. It will have just two sections: the first will cover a particular area of health and the second will ask about your main areas of pesticide use. Taking this more in-depth look at specific health conditions gives a unique snapshot of the health of our study members, which will help to build the body of evidence on the relationships between the use of pesticides at work and long-term health.



Respiratory health among study members

Many thanks for your help with the PIPAH study. We had nearly 2600 questionnaires about breathing problems completed, so thank you once again. The average age of those of you who responded was 60 years old, and most (97%) were male. Here is a quick summary of what we found.

We were interested in asthma, because it is a common condition. Over one in ten of you (11.4%) said that you had previously been diagnosed with asthma by a doctor. Whilst this seems quite a high figure, this is a similar amount to the rest of the UK.

Interestingly, if you said that you had asthma, it was common for you to also report that something at work may make it worse or aggravate it. We asked you to let us know what type of exposures or work made your asthma worse. We had lots of different answers to this question, and so have grouped them. Dust exposure was by far the commonest reason given for worsening of asthma, followed by mixed exposures and then chemical exposures. A few people also suggested that temperature changes and exercise at work also worsened their asthma.



Other breathing problems diagnosed by a doctor were much less common, and included Chronic Obstructive Pulmonary Disease (known as COPD), bronchitis and Farmer's Lung. Symptoms of breathing problems were common, however, with high levels of people saying that they get wheezy (18%), regular coughing (14%) and difficulty in breathing (13%). Allergies that affect the nose, such as hay fever, were also common (21%).



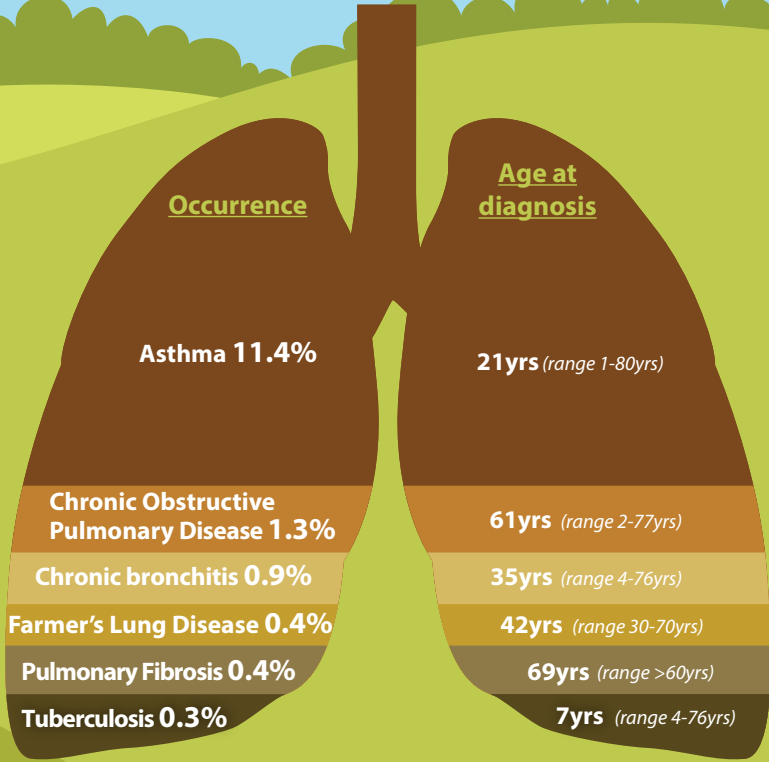
This study has shown that many of you suffer with common breathing and allergy problems, and that sometimes these are made worse by dust and chemical exposures at work.

If you feel that you may have problems with your breathing, it is sensible to talk to your practice nurse or GP when you next see them. Why not take this newsletter along as it may be a good starting point for a chat about your breathing, particularly if you think your work may be making things worse.

More information is available at the study website

(<https://www.hsl.gov.uk/resources/major-projects/pipah/>),
and the British Lung Foundation (<https://www.blf.org.uk/>)
and Asthma UK websites (<https://www.asthma.org.uk/>).

Occurrence of doctor diagnosed breathing problems

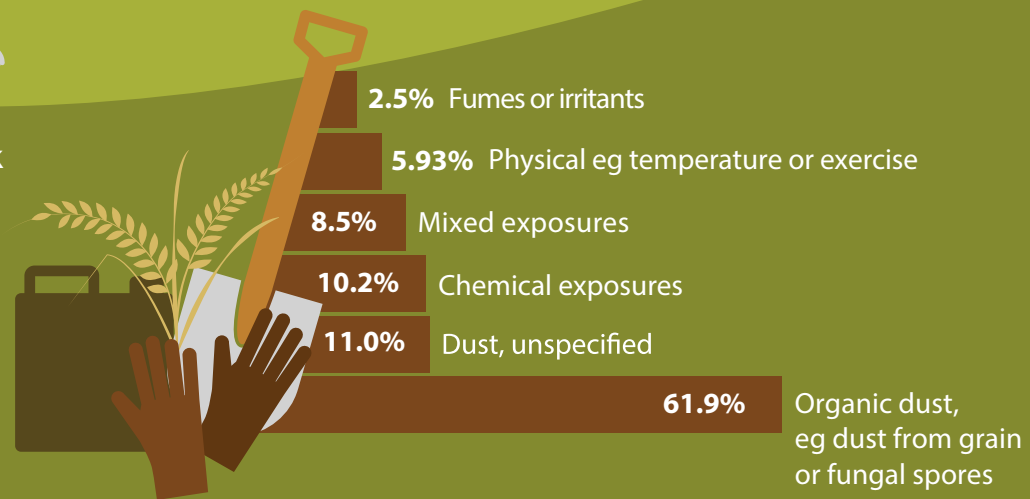


Asthma

For those of you who reported being diagnosed with asthma



What at work caused or made your asthma worse?





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Once again, we would like to thank you for taking part in the PIPAH study and hope you continue to remain members of it. We certainly can't do without you and we look forward to sending you another update. In the meantime, please don't hesitate to contact us either by email PIPAH@hse.gov.uk or by freephone 0800 093 4809 if you have any queries, want to discuss any aspect of the PIPAH study with us, or if you would like to update your current contact information.

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Visit our webpage <http://www.hsl.gov.uk/resources/major-projects/pipah>

