

The children from the Elfe cohort turn three and a half First results from the first interviews!

The Elfe children are now three and a half years old¹, and a new survey was launched on 21 October to gather more detailed information about early childhood. This survey was conducted for the first time by telephone and through home visits with the families. The success of this new stage comes from the investment made by all of the families who believe in the value of this research, which will continue until their child turns 20 years old. Led by INED and INSERM, and in partnership with EFS, this study requires many stages starting from data collection up until the researchers publish the results. Some of this data has just been published in the three fields of health, environment and social sciences.



Insight on the preliminary findings of the Elfe study, by Marie-Aline Charles,
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Elfe study director (Ined-Inserm-EFS combined unit)

In the health field, the survey showed that 70 % of mothers breastfeed, a number that has significantly grown since the 1970s².

Although infant formula is a completely acceptable alternative today for mothers who do not want to or cannot breastfeed, a considerable amount of scientific research shows that breastfeeding has a positive effect on the health of the mother and child. The findings of this Elfe study confirm that there has been an increasing trend documented over the last several years to initiate breastfeeding in the maternity ward, in conjunction with numerous public health initiatives that were started to promote breastfeeding. In the maternity ward, 59% of mothers breastfeed only and 11% give both a bottle and breast milk. Mothers who breastfeed more frequently are older, have a normal body weight and belong to a higher socio-professional category. Mothers born in other countries breastfeed more often; likewise for mothers who took childbirth education classes and who did not smoke during their pregnancy. It also appears that breastfeeding is more common when fathers are involved and present during the birth, and when couples are married.

To continue efforts to promote breastfeeding, researchers suggest involving fathers as much as possible while allowing more women to attend childbirth classes (for example, 70% of those in the working class did not attend a class, compared to 27% of those in the managerial/professional class).

In the field of environmental health, the preliminary findings on housing contamination by micro-organisms are going to be published³.

3,000 dust collectors were placed in children's rooms for the first two months of their life, and the micro-organisms collected (mites, mold, etc.) were analysed to evaluate their influence on future health, particularly respiratory health. Six different housing contamination profiles were identified, of which two were commonly found in Western France (one had high numbers of mites and bacteria, and the other had mites, bacteria and mold). A higher humidity rate and temperatures more conducive to the growth of these micro-organisms could explain these results. The geographic breakdown of these profiles overlaps with the breakdown from a recent study conducted in day care nurseries on the frequency of asthma in young children⁴. The follow-up data from the Elfe children will help confirm whether or not there is a relationship between these contamination profiles and children's respiratory health. The objective within the Elfe study is to observe the respiratory diseases in these regions more carefully in correlation with the quality of housing, ventilation, isolation, etc.

¹ Elfe is the first French longitudinal study dedicated to monitoring children from birth to adulthood. It takes a look at childhood from the multiple perspectives of social science, health and environmental health in order to better understand the interaction between them. During four enrolment periods in 2011, more than 18,000 families agreed to take part in this Elfe adventure in metropolitan France.

² BEH no. 27 from 07 October 2014, Prevalence of breastfeeding based on parent characteristics and delivery conditions. Results from the Elfe maternity survey, Metropolitan France, 2011, by Claire Kersuzan and coll., Institut national de la recherche agronomique (Inra - National Institute of Agronomic Research) [//www.invs.sante.fr/Publications-et-outils/BEH-Bulletin-epidemiologique-hebdomadaire](http://www.invs.sante.fr/Publications-et-outils/BEH-Bulletin-epidemiologique-hebdomadaire)

³ Steffi Rocchi, Gabriel Reboux and coll., Université de Franche Comté, UMR 6249 Chrono-environnement, publication to appear in Sciences of total Environment under the title: Microbiological characterization of 3193 French dwellings of Elfe cohort children.

⁴ Study conducted with 20,000 children in day care nurseries who presented with wheezing and asthma: Delmas MC, Prevalence and controlling asthma in young children, Revue des maladies respiratoires, 2012.

The next publications in the field of social sciences will provide information on **how parents prepare for the birth of a child, and in particular their desire to find out the baby's gender**⁵.

The Elfe results show that nearly nine future parents out of ten want to know the gender of their child before his/her birth. For their first child, 60% of parents have no preference. When they do have a preference, it is equal for mothers (20 % for a girl and 20% for a boy), while fathers favour boys (25% would prefer a boy and 14% a girl). When it is a second child, the proportion of parents who do not have a preference decreases slightly. And when they do have a preference, it depends greatly on the gender of the oldest child; parents often want mixed-gender siblings. One of this research project's objectives is to measure if this preference influences the beginning of parenthood.

A new survey when the child is three and a half and entering preschool

Two contacts are planned during this important stage young children's lives:

- **A telephone interview** with one of the parents will focus primarily on updating information about the child's environment (family, social, economic, culture, diet, etc.), the parents' child-rearing practices, the child's psychomotor development and health events. New topics including entry into preschool will also be discussed.
- **A home visit** with approximately 10,000 families, which will provide direct contact with the child. Researchers will use drawing, visual games and image association to gather information about the child's cognitive development and learning.

For families who have already participated in the lab work component in the maternity ward, new non-invasive sample collections, such as a urine sample from the child, are scheduled. Dust will also be collected in a few households to measure the substances found in the children's environment. Finally, volunteer families can have their child wear a "movement counter" or accelerometer to measure their physical activity and sleep quality.



[Video – Survey home visit](#)

The progress of this unprecedented study, which includes one child out of 50 of the births in France in 2011, is based on the involvement of families who agreed to an initial interview in the maternity ward and then regular follow-up. The Elfe study families are playing a vital role in research for 20 years!

About the Elfe study

The Elfe study involves a large number of French researchers in a wide variety of scientific disciplines. Led by the Institut National d'Études Démographiques (INED - French National Institute of Demographic Studies), the Institut National de la Santé et de la Recherche Médicale (INSERM - National Institute of Health and Medical Research), in partnership with the Etablissement Français du Sang (EFS - French Blood Agency), the Elfe study is supported by the ministries in charge of research, sustainable development, social affairs and health, and by public institutions: Institut de Veille Sanitaire (InVS - Health Watch Institute), Caisse Nationale des Allocations Familiales (Cnaf - French national family allowances fund) and the Institut National de la Statistique et des Études Économiques (Insee - National Institute of Statistics and Economic Studies). The Elfe study receives aid from the State managed by the Agence Nationale de la Recherche [National Research Agency] under a program entitled "Investments of the Future" under reference ANR-11-EQPX-0038.

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⁵ XVIIIe Aidelf international conference, Université de Bari, 26-30 May 2014, Olivia Samuel and coll., Université Versailles St Quentin, Spring/Ined-IPOPs