

Switzerland - Serum dioxin concentrations in the Lausanne population – A pilot population-based survey

David Vernez, Aurélie Berthet

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Identification

SURVEY ID NUMBER
10.16909-dataset-61

TITLE
Serum dioxin concentrations in the Lausanne population – A pilot population-based survey

TRANSLATED TITLE
Etude d'imprégnation de la population lausannoise aux dioxines – Etude pilote basée sur la population

COUNTRY

Name	Country code
Switzerland	CHE

ABSTRACT

Polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/Fs) are ubiquitous in the environment and the main route of exposure for humans is food. A high and widespread soil contamination was discovered in 2021 in Lausanne city. Previous human exposure assessment study showed that consumption of home-produced eggs and cucurbits were dominant exposure scenarios. In the absence of epidemiological data in Switzerland, we conducted a cross-sectional study in 2023 to assess the difference between control (n=50) and exposed (n=51) groups, living in the contaminated area and reporting to consume selected home-produced foods (eggs and cucurbits). We sampled blood serum and asked the participants to fill several questionnaires on their lifestyle and dietary habits.

Primary objective: Assess exposure to PCDD/Fs from dietary intake of foods produced in contaminated areas of Lausanne

Secondary objective: Correlate serum concentrations of endocrine disruptors with the Aryl hydrocarbon receptor (AhR) response

Third objective: Determine the exposure determinants influencing the serum concentrations of PCDD/Fs and OCPs

KIND OF DATA

Survey data, Face to face medical visit

UNIT OF ANALYSIS

Individuals

Version

VERSION DATE

Scope

KEYWORDS

Keyword
Environmental Exposure
Dioxins
PCDD/Fs
Food frequency questionnaire
Environmental contamination

Coverage

GEOGRAPHIC COVERAGE

This study focused on the soil contamination of Lausanne, selecting healthy volunteers from Lausanne and surrounding areas.

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
David Vernez	Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland
Aurélie Berthet	Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland

PRODUCERS

Name	Abbreviation	Affiliation	Role
Oltramare Christelle	CO	Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland	Co-author, researcher
Markus Zennegg	MZ	EMPA	Co-author, researcher
Murielle Bochud	MB	Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland	Co-author, researcher
Valentin Rousson	VR	Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland	Co-author, researcher
Julien Riou	JR	Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland	Co-author, researcher
Yves Henchoz	HY	Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland	Co-author, researcher

FUNDING AGENCY/SPONSOR

Name	Abbreviation
Department of Health, Canton of Vaud	DGS

OTHER IDENTIFICATIONS/ACKNOWLEDGMENTS

Name	Affiliation	Role
Agathe Deschamps	Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland	Study nurse

Sampling

SAMPLING PROCEDURE

Sample size =102

Data collection

DATES OF DATA COLLECTION

Start	End	Cycle
2023-05-01	2023-09-15	1

DATA COLLECTION MODE

Internet [int]

Questionnaires

QUESTIONNAIRES

Online questionnaire

Access policy

CONTACTS

Name	Affiliation	Email
David Vernez	DSTE, Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland	david.vernez@unisante.ch
Aurélie Berthet	DSTE, Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland	aurélie.berthet@unisante.ch
Christelle Oltramare	DSTE, Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland	christelle.oltramare@unisante.ch

ACCESS CONDITIONS

This dataset is submitted to the Federal Act on Research involving Human Beings (HRA). Therefore, an ethical approval will be required to use this dataset.

The Data transfer agreement must be signed before releasing the dataset

CITATION REQUIREMENTS

Vernez, D., Berthet, A., Oltramare, C., Zennegg, M., Bochud, M., Rousson, V., Riou, J., & Henchoz, Y. Serum dioxin concentrations in the Lausanne population – A pilot population-based survey. Unisanté, Center for Primary Care and Public Health & University of Lausanne, Lausanne, Switzerland. Version 1.0 of the licensed dataset (02/2026), provided by the Unisanté Research Data Repository. DOI:<https://doi.org/10.16909/dataset/61>

ACCESS AUTHORITY

Name	Affiliation	Email	URL
Documentation and data unit (UDD)	Unisanté, University Center for Primary Care and Public Health, Lausanne, Switzerland	udd.data@unisante.ch	Link

LOCATION OF DATA COLLECTION

Unisanté Data repository

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