# Effect of migration on risk of diabetes

Submission date	Recruitment status	<ul><li>Prospectively registered</li></ul>
13/01/2014	No longer recruiting	☐ Protocol
Registration date	Overall study status	Statistical analysis plan
06/02/2014	Completed	Results
Last Edited	Condition category	Individual participant data
06/02/2014	Nutritional, Metabolic, Endocrine	Record updated in last year

### Plain English summary of protocol

Background and study aims

Type 2 diabetes is an increasing problem in sub-Saharian Africa: the prevalence and burden are rising very quickly as a consequence of major changes in lifestyle. In 2009 the International Diabetes Federation projected a 98% growth in the number of diabetic adults in this region. The main cause of diabetes in Africa, as everywhere, is impaired glucose tolerance (IGT), when blood glucose is raised beyond the normal range but it is not so high that you have diabetes. It is a consequence of urbanization and changes in diet. In Senegal (West Africa) it is already a great public health problem in the main city (Dakar) and its suburbs. In the villages, with a very different way of life, it is still unknown. In our hospital in Saint-Die (France) we have found that the Senegalese migrants (in majority coming from Fuuta, the northern region along the Senegal river) have a very high prevalence of IGT or type 2 diabetes. The aim of this study was to compare the prevalence of abnormal glucose status between the Senegalese migrants in France, especially around Saint-Die, and their relatives living in their villages in Fuuta. Our objective is to find out whether migration can lead to an increase of prevalence of IGT or type 2 diabetes among Senegalese migrants.

### Who can participate?

We studied adults of both sexes, older than 18 years, who had accepted to be tested. The study involved two different populations. First, a study was conducted in Senegalese migrants in Saint-Die (SD group). Second, we studied the adult population of five villages in Fuuta (F group).

## What does the study involve?

For all the selected participants we recorded the sex and age and measured height, weight, body mass index (BMI), waist/hip ratio and blood sugar levels.

What are the possible benefits and risks of participating?

There were no risks for the subjects. If we discovered a participant had type 2 diabetes the participant was informed of this so they could be treated.

Where is the study run from?

Centre Hospitalier Saint-Charles à Saint-Dié-des-Vosges (France).

When is the study starting and how long is it expected to run for? The study began in November 2000 and finished in November 2001.

Who is funding the study? Association pour la Prévention de lObésité et du Diabète en Déodatie (APODD) (Saint-Die, France).

Who in the main contact?
Dr JM Dollet
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## Contact information

### Type(s)

Scientific

### Contact name

Dr Jean-Marc Dollet

### Contact details

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## Additional identifiers

### Protocol serial number

**Diabetes FUUTA** 

## Study information

#### Scientific Title

High frequency of abnormal glucose tolerance in Senegalese migrants: a new example of the heavy consequences of the nutritional transition

#### Acronym

Diabetes SD/F

### Study objectives

Senegalese migrants have a higher risk of developing diabetes mellitus than their relatives remaining in their birth country. The main reason seems to be the nutritional transition (diet and sedentarity).

We compared the prevalence of abnormal glucose status between Senegalese migrants and their relatives staying in their villages in Fuuta (a region in the Northern part of Senegal).

## Ethics approval required

Old ethics approval format

### Ethics approval(s)

Ethics Commitee of Centre Hospitalier Saint-Charles à Saint-Dié-des-Vosges, June 2000

### Study design

Observational cohort study

### Primary study design

Observational

### Study type(s)

Screening

### Health condition(s) or problem(s) studied

Diabetes, migration, public health

#### **Interventions**

Study on Senegalese adults living in Saint-Die (France) and a representative sample of their relatives in five villages in Fuuta (Senegal). For all the selected subjects we measured four anthropometric parameters (height, weight, BMI and waist/hip ratio) and fasting capillary glycaemia. We stay for one day in each village.

### Intervention Type

Other

#### Phase

Not Applicable

### Primary outcome(s)

- 1. Anthropometric measures (height, weight, BMI and waist/hip ratio)
- 2. Blood capillary glucose, measured using a Glucotrend device (Lab. Boehringer)

All of the measures were taken at baseline in one day.

## Key secondary outcome(s))

N/A

## Completion date

01/11/2001

## **Eligibility**

### Key inclusion criteria

- 1. All Senegalese migrants living in Saint-Die (France)
- 2. A representative sample of their relatives in five villages in Fuuta (Senegal)
- 3. Adults between 18 and 75 years

## Participant type(s)

Patient

## Healthy volunteers allowed

### Age group

Adult

### Lower age limit

18 years

### Sex

All

### Key exclusion criteria

- 1. Pregnancy
- 2. Illness

### Date of first enrolment

01/11/2000

### Date of final enrolment

01/11/2001

## Locations

### Countries of recruitment

France

Senegal

### Study participating centre Service de Médecine A

Saint-Dié-des-Vosges France 88100

## Sponsor information

### Organisation

Centre Hospitalier Saint-Charles à Saint-Dié-des-Vosges (France)

#### **ROR**

https://ror.org/000tm9s39

## Funder(s)

### Funder type

Hospital/treatment centre

### Funder Name

Centre Hospitalier Saint-Charles à Saint-Dié-des-Vosges (France)

## **Results and Publications**

Individual participant data (IPD) sharing plan

### IPD sharing plan summary

Not provided at time of registration

### **Study outputs**

Output type Details Date created Date added Peer reviewed? Patient-facing?

Participant information sheet Participant information sheet 11/11/2025 No Yes