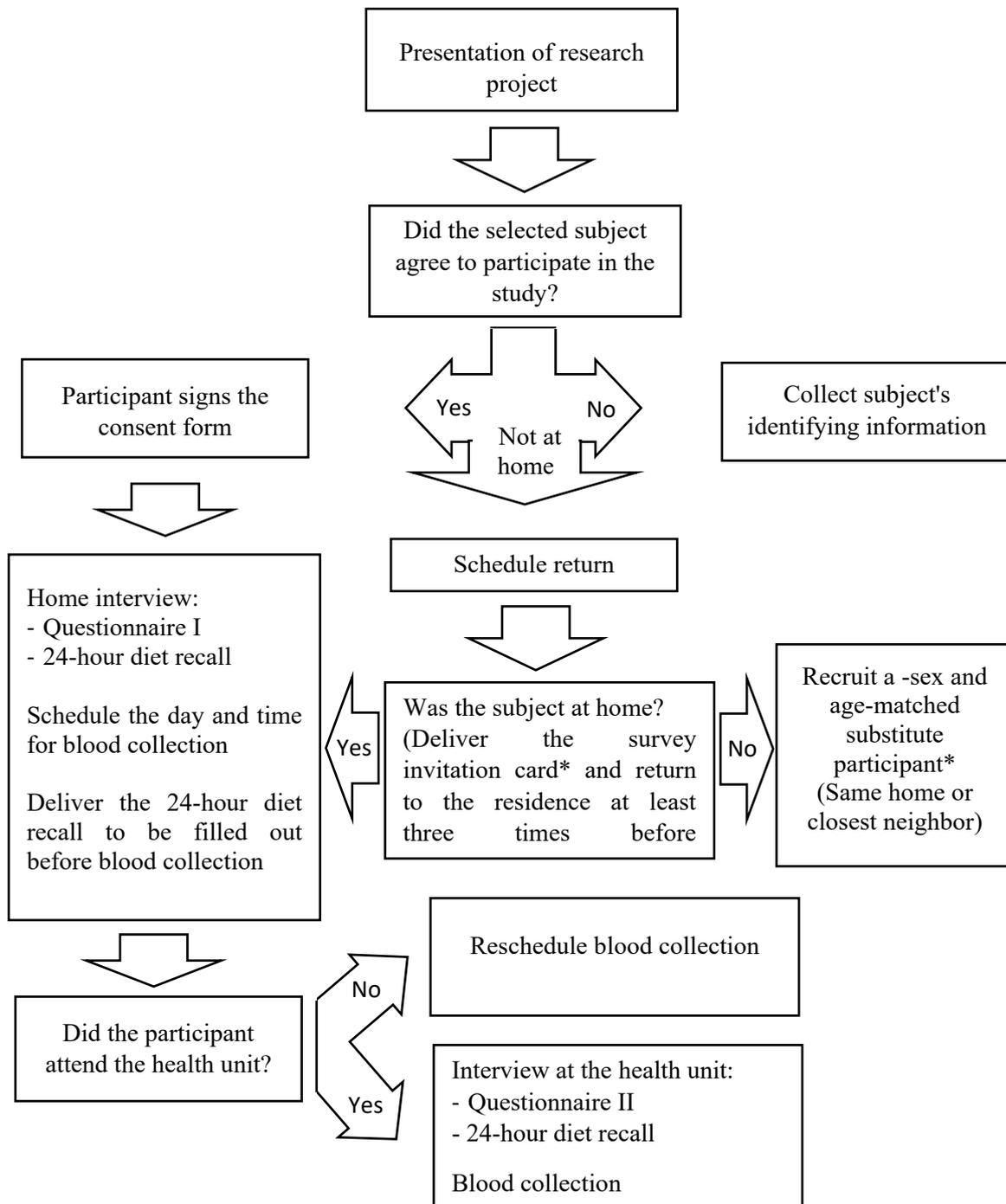
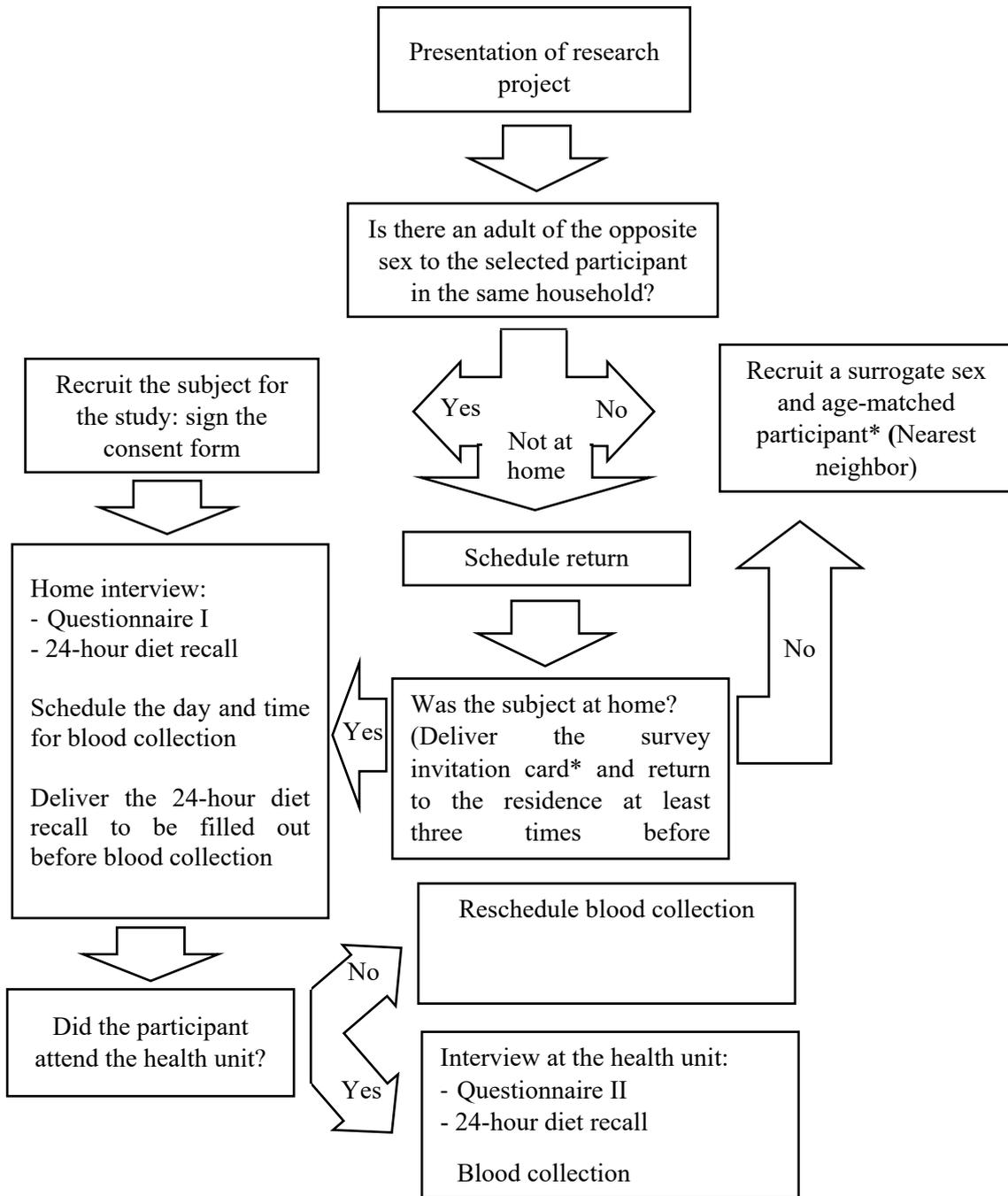


Figure S1: Recruitment protocol of the selected participants.



*Age matching and delivery of the research invitation card were strategies established during the pilot study.

Figure S2: Recruitment protocol of the sex-matched participant.

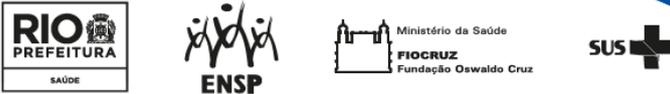


*Age matching and delivery of the research invitation card were strategies established during the pilot study.

Figure S3: Survey dissemination material.

BIOMONITORAMENTO
VOCÊ PARTICIPA?

A Superintendência de
Vigilância em Saúde está
realizando avaliação da
exposição a metais e efeitos
à saúde na população
residente em Santa Cruz.
PERÍODO 2018 A 2019



[Content translation: Biomonitoring - Do you participate?

The Health Surveillance Department is investigating exposure to metals and health effects in the population residing in Santa Cruz. Period 2018 to 2019]

Figure S4: Survey participation invitation card.



BIOMONITORAMENTO VOCÊ PARTICIPA?

SUPERINTENDÊNCIA DE VIGILÂNCIA EM SAÚDE

CONVITE

[Content translation: Invitation Card
Biomonitoring - Do you participate?
Health Surveillance Department]

A Superintendência de Vigilância em Saúde está realizando
avaliação da exposição a metais e efeitos à saúde
na população residente em Santa Cruz.

PERÍODO 2018 A 2019



Prezado(a) Sr(a) _____

Você foi selecionado para avaliação da exposição a metais e efeitos à saúde.

Compareça à _____

(clínica da família ou CMS)

a partir do dia ____/____, de 2ª a 6ª feira, até as 9h e
leve esse documento com você.

Obrigado e até lá!

Rio de Janeiro, ____ / ____ / ____

Agente de Vigilância em Saúde

[Content translation: The Health Surveillance Department is investigating exposure to metals and health effects in the population residing in Santa Cruz. Period 2018 to 2019. Dear Mr./Mrs. (*participant name*). You have been selected to participate in the metal exposure and health effects assessment study. Attend the (*health unit name*) from day (*date of appearance*) from Monday to Friday, until 9 am and take this document with you. Thanks, and see you there!]

Table S1: Methods and reference values of hematological and biochemical parameters.

| Parameter | Method | Reference value |
|----------------------|---|--|
| Blood count | Automation | |
| Red blood cells | | men= 4.4-5.9; woman= 4.0-5.4 $10^6/\mu\text{L}$ |
| Hemoglobin | | men= 13.0-18.0; woman=12.0-16.0 g/dL |
| Hematocrit | | men= 40-52; woman= 35-47% |
| MCV | | 80-100 fL |
| MCH | | 27-32 pg |
| CMCH | | 32-37 g/dL |
| RDW | | $\leq 15\%$ |
| White blood cells | | 100% or 3.5-11 $10^3/\mu\text{L}$ |
| Neutrophils | | 50-70% or 2.5-7 $10^3/\mu\text{L}$ |
| Eosinophils | | 1-6% or 0.1-0.6 $10^3/\mu\text{L}$ |
| Basophils | | 0-2% or 0-0.2 $10^3/\mu\text{L}$ |
| Lymphocytes | | 20-30% or 1-3 $10^3/\mu\text{L}$ |
| Monocytes | | 2-12% or 0.1-0.8 $10^3/\mu\text{L}$ |
| Platelets | | 150-450 $10^3/\mu\text{L}$ |
| Total cholesterol | Automation by CHOD-POD | 18-19 years: desirable ≤ 169 ; borderline= 170-199; high >199 >19 years: desirable ≤ 199 ; borderline= 200-239; high >239 mg/dL |
| Triglycerides | Automation by GPO-POD | 18-19 years: desirable ≤ 130 >19 years: normal ≤ 149 ; borderline= 150-199; high= 199-499; very high >499 mg/dL |
| Creatinine | Automation by kinetic alkaline picrate (Jaffe) reaction | men= 0.7-1.3; woman= 0.5-1.1 mg/dL |
| Urea | Automation - UV enzymatic - urease/glutamate | 15-50 mg/dL |
| AST | Automation - UV optimized by IFCC | men= 15-40; woman= 13-35 U/L |
| ALT | Automation - UV optimized by IFCC | men= 10-40; woman= 7-35 U/L |
| Alkaline phosphatase | Automation - Kinetic optimized by IFCC | 18-19 years: men ≤ 155 ; woman ≤ 150 >19 years= 25-100 U/L |
| TSH | Chemiluminescence | 18-60 years= 0.4-4.3 $\mu\text{Uml/mL}$ 61-79 years= 0.4-5.8 $\mu\text{Uml/mL}$ >79 years= 0.4-6.7 $\mu\text{Uml/mL}$ |
| FT4 | Chemiluminescence | 0.70-1.80 ng/dL |
| TT3 | Chemiluminescence | 70-220 ng/dL |

MCV: mean cell volume; MCH: mean cell hemoglobin; CMCH: concentration of mean cell hemoglobin; RWD: red cell distribution width; AST: aspartate aminotransferase; ALT: alanine aminotransferase; TSH: thyroid-stimulating hormone; TT3: total triiodothyronine; FT4: serum levels of free thyroxine. UV: ultraviolet. IFCC: International Federation of Clinical Chemistry. CHOD-POD: cholesterol oxidase and peroxidase. GPO-POD: glycerol phosphate oxidase-peroxidase.