

HTA dans le monde

HTA dans l'Océan Indien

Données Réunionnaises et Mahoraises

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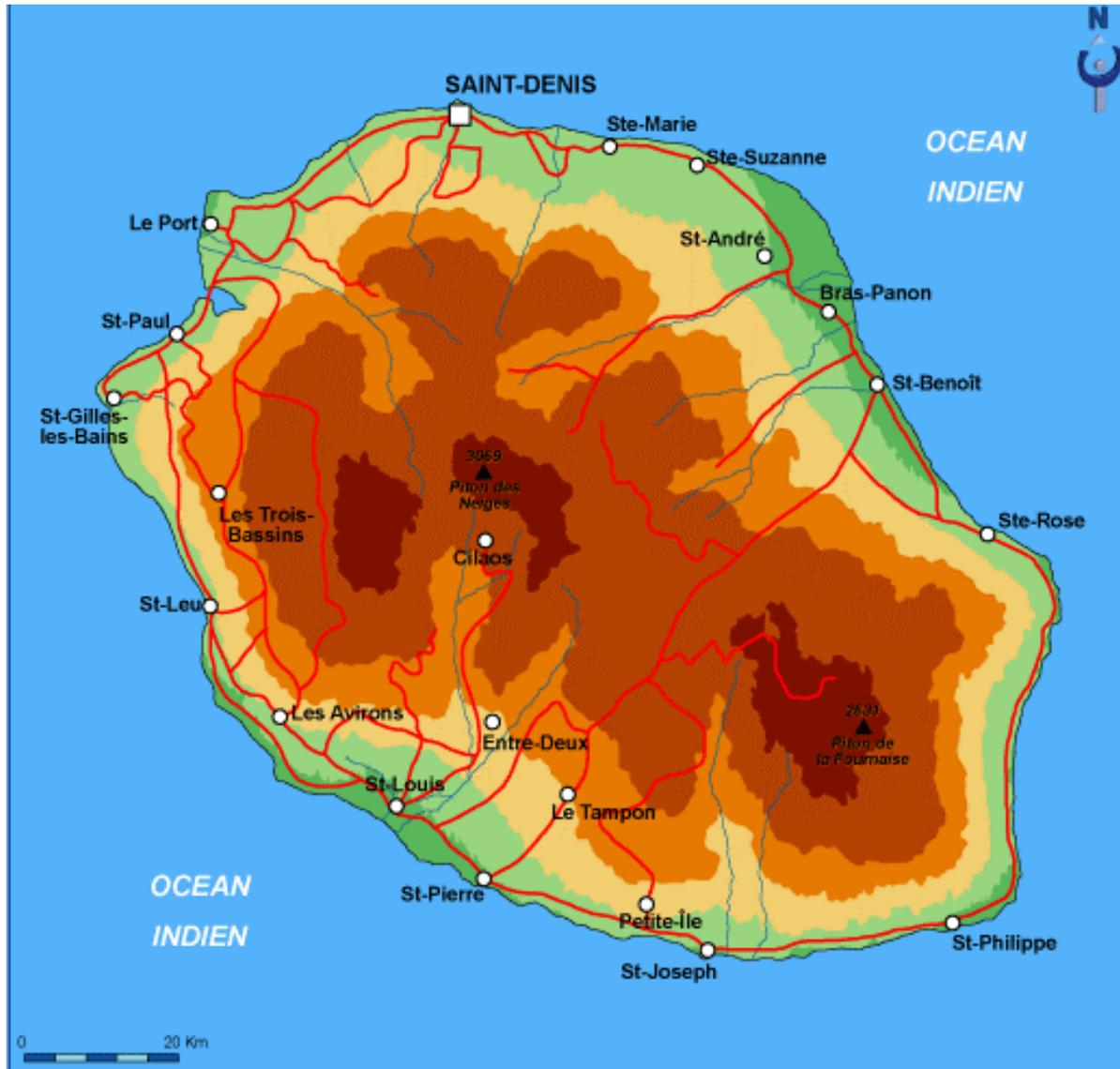
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*L'auteur déclare n'avoir aucun lien d'intérêt concernant les données de sa communication*





2.504 km<sup>2</sup> - 845.000 habitants (2014)

ORIGINAL ARTICLE

## Prevalence, treatment and control of hypertension in La Réunion: the REDIA population-based cohort study

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Cohorte prospective réunionnaise N = 4.610

Echantillon représentatif (1999-2001) - 18 à 69 ans

≥ 10 ans à la Réunion, pas de pathologie majeure

HTA si HTA traitée et/ou PAc (OMRON®) ≥ 140/90 mmHg

Suivi de cohorte 2006-2009 (médiane 7,4 ans) N = 3.081

**Table 1.** Characteristics of participants.

	Inclusion (1999–2001)	Follow-up (2006–2009)
	<i>n</i> = 3087	
Women – <i>n</i> (%)	1792 (58.0)	
Educational level – <i>n</i> (%)		
Primary school or none	1131 (36.7)	
Secondary school	1458 (47.3)	
University or VPSS	495 (16.0)	
Age – <i>n</i> (%)		
18–29 yrs	539 (17.5)	262 (8.5)
30–39	951 (30.8)	491 (15.9)
40–49	768 (24.9)	931 (30.2)
50–59	514 (16.6)	728 (23.6)
60–69	315 (10.2)	461 (14.9)
70–79	–	214 (6.9)
Age – yrs – mean	41.8 ± 12.6	49.1 ± 12.9
Waist circumference – (cm)	86.4 ± 12.7	91.4 ± 13.2
Weight – (kg)	66.6 ± 13.9	68.9 ± 14.6
BMI		
kg/m <sup>2</sup> (mean ± SD)	25.2 ± 4.8	26.2 ± 5.0
<27 kg/m <sup>2</sup> – <i>n</i> (%)	2146 (69.6)	1901 (62.0)
27–30 kg/m <sup>2</sup> – <i>n</i> (%)	499 (16.1)	586 (19.1)
≥ 30 kg/m <sup>2</sup> – <i>n</i> (%)	442 (14.3)	581 (18.9)
Obesity – <i>n</i> (%)	439 (14.2)	582 (18.9)
Fasting glycemia – mg/l	99.4 ± 32.3	100.3 ± 39.7
Haemoglobin A1c – (%)	5.5 ± 1.3	6.1 ± 1.1
Diabetes – <i>n</i> (%)	404 (13.1)	700 (22.7)
Current smoking – <i>n</i> (%)	–	594 (19.2)
Marital status – <i>n</i> (%)		
Married or living together	–	2240 (72.6)
Single, divorced or widowed	–	847 (27.4)
Systolic blood pressure (mmHg)	124.7 ± 20.3	132.9 ± 19.2
Systolic blood pressure (mmHg)	80.1 ± 12.4	83.3 ± 13.1

VPSS: vocational postsecondary school.

**Table 2.** Prevalence of hypertension at baseline according to age and sex in the REDIA study (3087 participants).

	<i>N</i>	%	IC 95%
Men			
18–29 yrs	53	23.9	18.4–30.0
30–39 yrs	118	29.2	24.8–33.9
40–49 yrs	133	42.0	36.5–47.6
50–59 yrs	124	56.1	49.3–62.8
60–69 yrs	94	71.8	63.2–79.3
Total 18–69	522	40.3	37.6–43.0
Total 35–64	368	44.3	40.9–47.8
Women			
18–29 yrs	39	12.3	8.9–16.4
30–39 yrs	116	21.2	17.9–24.9
40–49 yrs	192	42.6	38.0–47.3
50–59 yrs	170	58.0	52.1–63.7
60–69 yrs	141	76.6	69.8–82.5
Total 18–69	658	36.7	34.5–39.0
Total 35–64	506	44.7	41.7–47.6
Total			
18–29 yrs	92	17.1	14.0–20.5
30–39 yrs	234	24.6	21.9–27.5
40–49 yrs	325	42.3	38.8–45.9
50–59 yrs	294	57.2	52.8–61.5
60–69 yrs	235	74.6	69.4–79.3
Total 18–69	1180	38.2	36.5–40.0
Total 35–64	874	44.5	42.3–46.8

# Prévalence de l'HTA

	Hommes	Femmes	Global
REDIA globale	40%	37%	38%
IHPAF globale (France)	27%	15%	22%
REDIA 35-64 ans	45%	45%	
< 30 ans	24%	12%	
MONA LISA 35-64 ans (France)	45%	27%	
Guadeloupe (Inamo)			29%
Martinique (Inamo)			28%
Guyane (Inamo)			18%
Polynésie Française (Inamo)			25%
Maurice (Magliano)			41%
Seychelles (Bovet)			40%

**Table 3.** Prevalence, awareness, treatment and control of hypertension at baseline and follow-up (3087 participants, median follow-up of 7 years).

Hypertension	Men		Women		Total	
	Baseline <i>n</i> = 1295	FollowU <i>n</i> = 1295	Baseline <i>n</i> = 1792	FollowU <i>n</i> = 1792	Baseline <i>n</i> = 3087	FollowU <i>n</i> = 3087
Prevalence – <i>n</i> (%)	522 (40.3)	660 (51.0)	658 (36.7)	857 (47.8)	1180 (38.2)	1517 (49.1)
Treatment – <i>n</i> (%) <sup>a</sup>	102 (19.5)	239 (36.2)	257 (39.1)	465 (54.3)	359 (30.4)	704 (46.4)
Awareness – <i>n</i> (%) <sup>b</sup>	134 (25.7)	281 (42.6)	294 (44.6)	505 (58.9)	428 (36.2)	786 (51.8)
Awareness – <i>n</i> (%) <sup>c</sup>	32 (7.6)	54 (12.8)	36 (9.0)	48 (12.2)	68 (8.3)	102 (12.5)
Control – <i>n</i> (%) <sup>d</sup>	18 (17.6)	72 (30.1)	47 (18.3)	167 (35.9)	65 (18.1)	239 (33.9)

<sup>a</sup>Proportion with at least one BP lowering drug among hypertensive subjects.

<sup>b</sup>Proportion declaring a medical history of hypertension among participants with hypertension.

<sup>c</sup>Proportion declaring a medical history of hypertension among participants with hypertension and without treatment.

<sup>d</sup>Proportion with normal BP among participants treated with a BP lowering treatment.

FollowU = Follow-up.

**Table 4.** Status concerning the existence and treatment of hypertension at follow-up according to the status at baseline in the REDIA study (3087 participants).

Status at baseline	Status at follow-up			
	Hypertensive <i>n</i> (%)	Aware <sup>a</sup> <i>n</i> (%)	Treated <sup>b</sup> <i>n</i> (%)	Controlled <sup>c</sup> <i>n</i> (%)
No hypertension <i>n</i> = 1907	586 (30.7)	161 (27.5)	124 (21.2)	65 (52.4)
Hypertensive <sup>a</sup> <i>N</i> = 1180	931 (78.9)	625 (67.1)	580 (62.3)	174 (30.0)
Treated <sup>d</sup> <i>n</i> = 359	351 (97.8)	328 (93.4)	329 (93.7)	97 (29.5)
Controlled <sup>e</sup> <i>n</i> = 65	64 (98.5)	57 (89.1)	56 (87.5)	26 (46.4)

<sup>a</sup>If hypertensive at follow-up.

<sup>b</sup>If hypertensive at follow-up.

<sup>c</sup>If treated at follow-up.

<sup>d</sup>If hypertensive at baseline.

<sup>e</sup>If treated at baseline.

**Table 5.** Factors associated with hypertension at baseline among 3087 participants.

	Odds ratio [95% IC]	<i>p</i>
Male sex	1.32 [1.12–1.56]	0.001
Age at inclusion		
18–29 (ref.)	1	–
30–39	1.29 [0.97–1.72]	0.08
40–49	2.63 [1.96–3.55]	<0.001
50–59	4.05 [2.90–5.65]	<0.001
60–69	8.32 [5.63–12.30]	<0.001
BMI		
<27 kg/m <sup>2</sup>	1 (Ref)	–
27–30 kg/m <sup>2</sup>	2.34 [1.87–2.90]	<0.001
≥ 30 kg/m <sup>2</sup>	4.37 [3.45–5.55]	<0.001
Educational level		
Primary or none (ref)	–	–
Secondary school	0.83 [0.68–1.02]	0.08
University or VPSS	0.80 [0.61–1.07]	0.13
HbA1C (per %)	1.25 [1.16–1.35]	<0.001

**Table 6.** Factors associated with hypertension at follow-up (mean 7 years) among 2907 non-hypertensive persons at baseline in the REDIA study.

	Relative risk [95% IC]	<i>p</i>
Male sex	1.26 [1.02–1.60]	0.02
Age at inclusion		
18–29 (ref.)	1 (Ref)	–
30–39	1.53 [1.16–2.03]	0.03
40–49	1.85 [1.37–2.50]	<0.001
50–59	2.25 [1.61–3.14]	<0.001
60–69	2.60 [1.74–3.90]	<0.001
BMI		
<27 kg/m <sup>2</sup>	1 (Ref)	–
27–30 kg/m <sup>2</sup>	1.40 [1.12–1.75]	0.003
≥ 30 kg/m <sup>2</sup>	1.72 [1.33–2.25]	<0.001
Educational level		
Primary or none (ref)	1 (Ref)	–
Secondary school	0.84 [0.69–1.02]	0.08
University or VPSS	0.69 [0.51–0.92]	0.01
HbA1C (per %)	1.12 [1.05–1.19]	<0.001

- Prévalence élevée de l'HTA (sujet jeune, + de ttt chez femme mais même niveau de contrôle)
- Disparités socio-économiques, inégalités de santé : chômage +++, 42% sous le seuil de pauvreté
- Facteurs favorisants : sédentarité, sel, surpoids/obésité, alcool
- Origine ethnique variée (génétique) : Inde, Afrique de l'Est, Madagascar, Chine, France → Population entièrement issue de l'immigration +++
- Association étroite entre surpoids/obésité - HTA - Diabète (prévalence +++ : 13,1% dans REDIA)





374 km<sup>2</sup> - 186.287 habitants (2007)  
 54% < 20 ans et 4% > 60 ans



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Original article

## Prevalence of type 2 diabetes and other cardiovascular risk factors in Mayotte in 2008: The MAYDIA study

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Population générale 2008-2009, 30 à 69 ans

> 5 ans à Mayotte, pas de maladie majeure

Pas de femme enceinte

N = 1.802 (1.268 home screening et 544 health center)

Table 1  
Weighted prevalence of known, unknown and total diabetes, according to demographic characteristics. Mayotte, the Maydia study 2008, ages 30–69 years ( $n = 544$ ).

	Known diabetes			Unknown diabetes			Total		
	<i>n</i>	% <sup>a</sup>	[95 % CI]	<i>n</i>	% <sup>a</sup>	[95 % CI]	<i>n</i>	% <sup>a</sup>	[95% CI]
<i>Sex</i>									
Men	19	4.4	[2.6–7.4]	20	5.3	[3.1–8.9]	39	9.6	[6.5–14.0]
Women	32	4.8	[3.2–6.4]	34	6.8	[4.3–10.5]	66	11.6	[8.4–15.7]
<i>Age groups</i>									
30-39 years	7	1.0	[0.4–2.4]	9	2.2	[0.9–5.3]	16	3.3	[1.7–6.3]
40-49 years	19	5.7	[3.4–9.4]	22	9.7	[5.8–15.6]	41	15.3	[10.4–22]
50-59 years	12	7.5	[3.6–15.2]	14	7.7	[3.5–15.9]	26	15.2	[8.7–25.2]
60-69 years	13	14.4	[7.1–26.9]	9	11.6	[4.7–25.7]	22	25.9	[14.9–41.3]
<i>Birth place</i>									
Mayotte	34	5.8	[3.9–8.5]	30	7.3	[4.7–11.3]	64	13.1	[9.6–17.7]
Comoros	13	2.8	[1.3–5.7]	22	4.9	[2.7–8.6]	35	7.6	[4.8–11.9]
Madagascar	3	6.3	[1.5–22.6]	2	6.6	[1.2–28.6]	5	12.9	[4.2–33.2]
Others	1	9.6	[1.2–48.5]	0	0.0	[0–21.2]	1	9.6	[1.2–48.5]
<i>Living place</i>									
Mamoudzou	9	1.6	[0.7–3.6]	16	2.8	[1.5–5.2]	25	4.5	[2.7–7.3]
North	8	2.9	[1.3–6.5]	11	9.4	[4.5–18.8]	19	12.4	[6.7–21.6]
South	5	3.3	[1.2–8.4]	6	4.8	[2.0–11.1]	11	8.0	[4.1–15.2]
Centre	20	10.5	[6.1–17.6]	12	7.8	[3.9–14.9]	32	18.3	[11.9–27.2]
Petite Terre	9	6.7	[3.0–14.2]	9	7.2	[3.2–15.4]	18	13.9	[7.8–23.5]
<i>Total</i>	51	4.6	[3.2–6.4]	54	6.0	[4.2–8.4]	105	10.5	[8.2–13.4]

<sup>a</sup> Weighted.

	Hommes	Femmes	Global
Surpoids	35%	32%	
Obésité	17%	47%	
↑ Périmètre abdominal	13%	70%	
HTA globale	50%	37%	44%
30-39 ans			33%
Diabète MAYDIA			10,5%
France			5,1%
Tabagisme	31%	2%	
Alcool	15%	≈ 0%	

HTA non contrôlée : 73%

≥ 50% des diabétiques ne se savent pas diabétiques

# Conclusions



# Celles de MAYDIA...

- Information
  - Nutrition, activité physique
  - Notion de maladie chronique
  - Ttt médicamenteux vs médecine traditionnelle
- Meilleures prise en charge / Observance
- Meilleur dépistage (diabète et HTA)

# Merci!

