The health situation in New Caledonia

2011

Key features 2011

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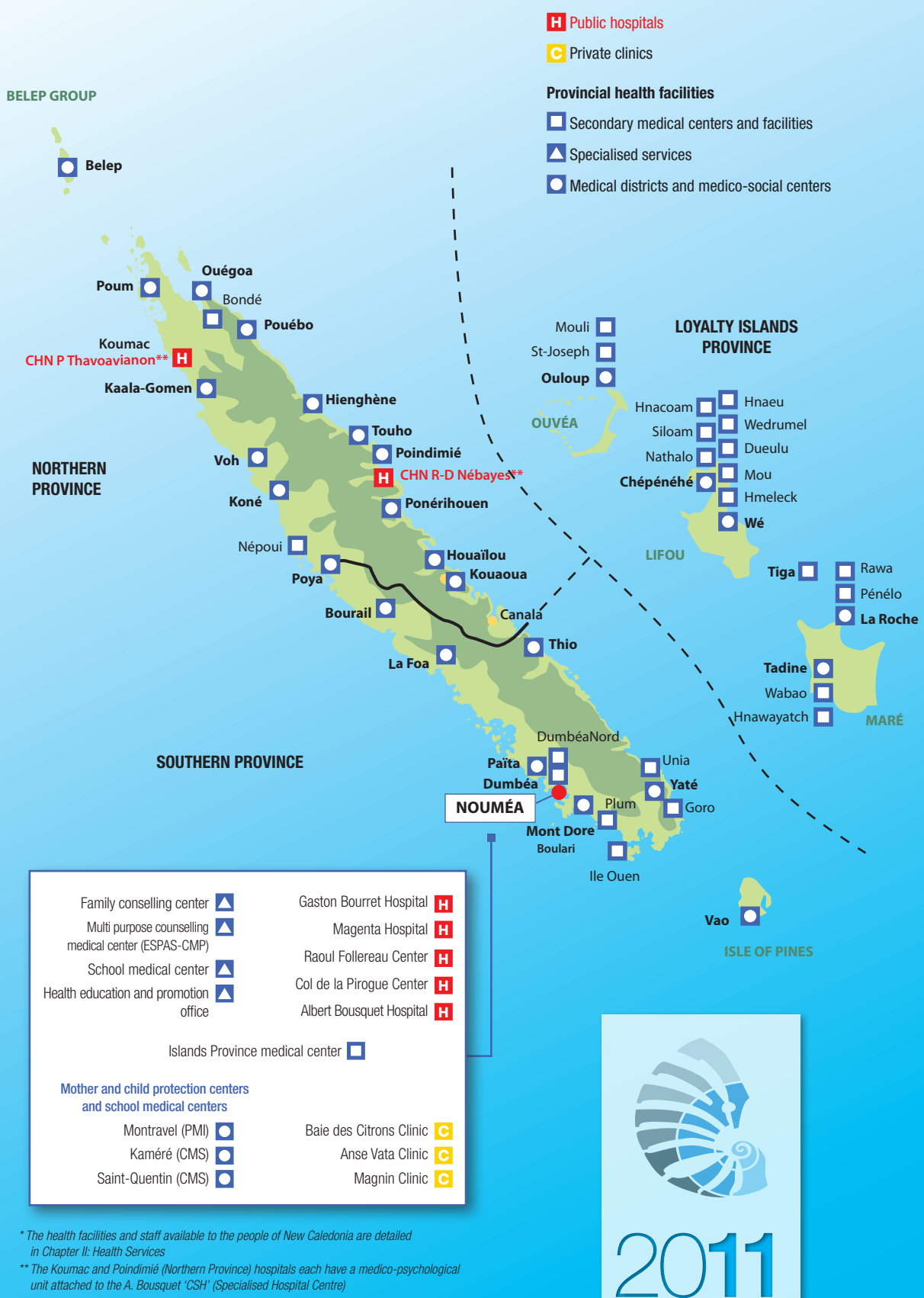
DASS
Direction des Affaires Sanitaires et Sociales

Main health facilities in New Caledonia*



** The health facilities and staff available to the people of New Caledonia are detailed in Chapter II: Health Services*

*** The Koumac and Poindimié (Northern Province) hospitals each have a medico-psychological unit attached to the A. Bousquet 'CSH' (Specialised Hospital Centre)*

2011

contents

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DEMOGRAPHIC CHARACTERISTICS

The population of New Caledonia grew by 2.6% between the 2009 population census and the 1st January 2011 estimate.
The population comprised 50.7 % men and 49.3 % women.

	Population as at 01/01/2011	Rate of increase (1)	Live births	Birth rate (2)	Fertility index (3)	Infant mortality (6)	Number of deaths according to place of residence	Crude mortality rate (4)	Crude perinatal mortality rate (7)	Life expectancy at birth (5)
New Caledonia	252 000	11.9	4 178	16.2	2.17	4.6	1 191	4.8	13,5	77.4
Islands Prov. *	17 500	10.6	314	18	2.8	19.1	129	7.4		74.2
Northern Prov. *	46 000	12.8	820	18	2.3	4.9	238	5.2		75.9
Southern Prov. *	188 500	11.9	3 028	16.2	2.2	3	803	4.3		78.2
France (in 000 as at 01. 01. 2011)	65,026 885		828	12.8	1.98	3.7	545 000	8.4		81
Fr. Polynesia (2008 figures)	264 736			17.8	2.01	7		4		75
Australia (2009)	22,7 million	1.2		13.8	2	4		7		81
New Zealand **	4,400 000		62 543	15.1**	2.2	5.0	28 964	6.8**		

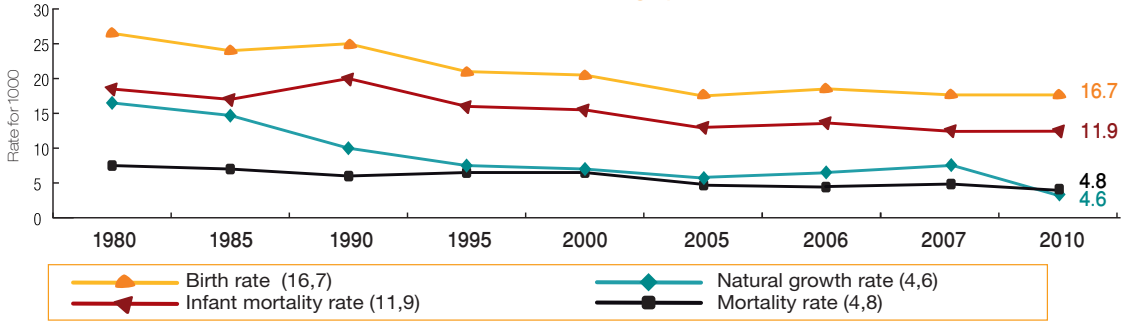
INSEE - ISEE - INED

*Only persons residing in the province. - **2008 figures

The natural growth rate[1] Representing the difference between the crude birth and crude death rates for the year concerned, this rate currently stands at 11.9 ‰. It is showing a falling trend, despite the growth in population size.

The birth rate[2] 16,7‰ - has been constantly falling since the 1960s, from 34.5 in 1965, to 23.4 in 1985 then, after a spectacular recovery in 2000, it declined to its lowest ever level in 2010.

Trends in the various demographic rates



Fertility index[3] 2.17 per 1 000 women of reproductive age.

A decrease in the fertility rate range by age between 1981 and 2005, with a rising average age for motherhood (from 26.4 in 1980 to 28.7 in 2010), can be observed.

Crude mortality rate[4] 4.8 per 1 000

After a distinct drop in the 1970s and 1980s, the crude death rate decreased at a lower rate until 1998. Since then, it has varied little and has remained slightly above 5 deaths per 1000 since 2005.
Male mortality is higher, with a peak between the ages of 20 and 25.

In 2010, the crude mortality rate gradually rose in the Islands Province (7.4) and the Northern Province (6.1). In the Southern Province, this rate remained relatively stable (4.3) .

Life expectancy at birth[5] 77.4 years in 2010 (men: 74.4; women: 80.7),

Life expectancy at birth is characterized by a regular increase, with higher gains for men than for women over the last 20 years and a continuing gap between men and women.

Infant mortality [6] 4.6‰. After a sharp drop in the 1970s, this rate, which is an indicator of a country's socio-economic and health development status, fell more gradually until the early 1990s, when it dropped below 10‰. Since 2001, a regular but less marked decrease can be observed, with the rate moving increasingly closer to that of metropolitan France and the European countries.

New Caledonia still has a young population (41.2% under 25 yrs old).
Improvements in socio-economic and health conditions have helped in raising life expectancy and reducing mortality, in particular infant mortality, which is now close to the developed country rate. However, the fall in the fertility rate, which is still higher than that necessary to maintain current population size, points to future difficulties associated with an ageing population.

MEDICAL CAUSES OF DEATH

1 320 medical death certificates were issued in 2011 (men: 772; women: 548).
The following classification by disease group varies only slightly from year to year.

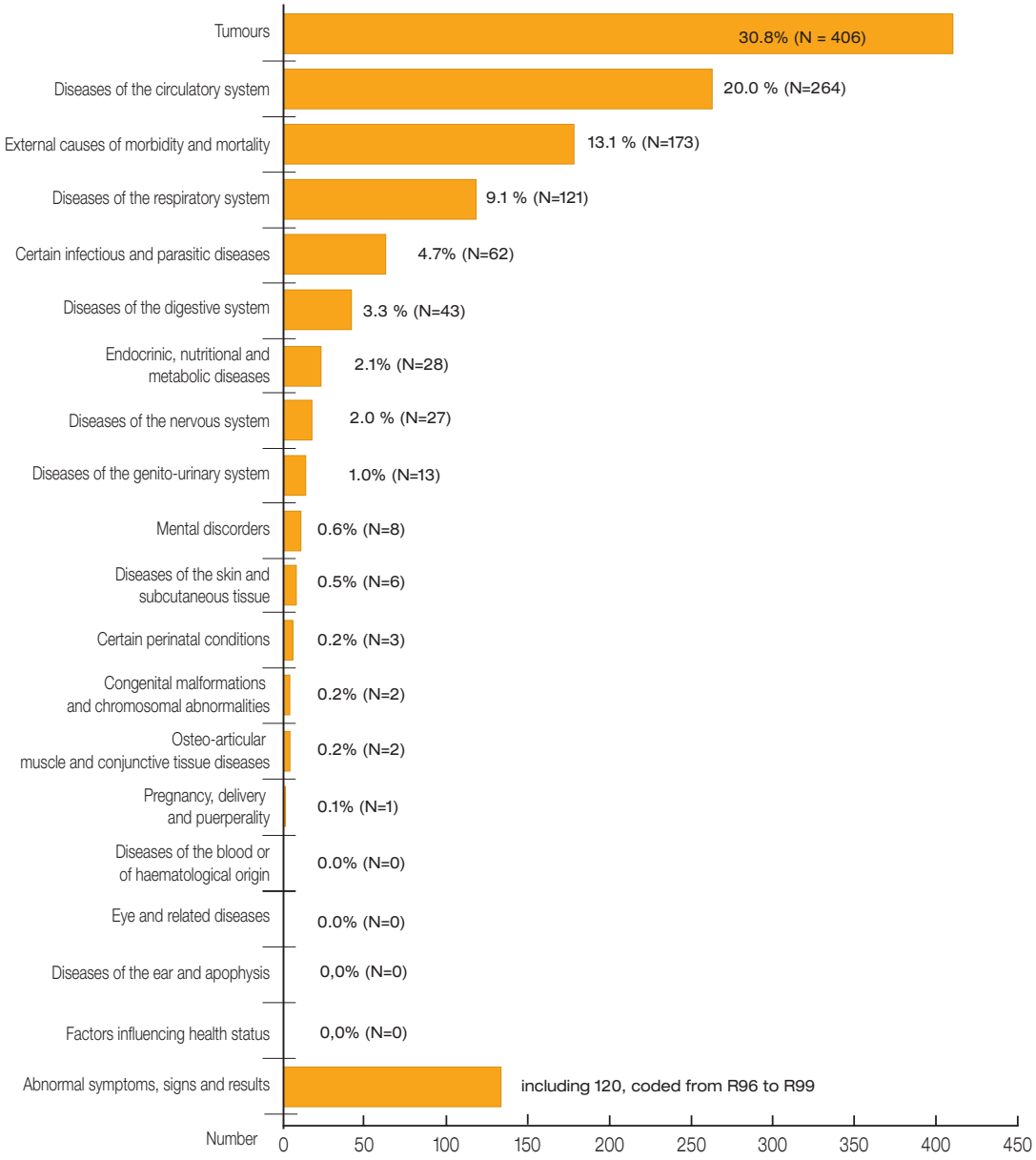
In 2011, gender-disaggregated, the 5 main causes of death were as follows:

	Men	Women
Tumours	**29.4%**	**32.7%**
Circulatory system	**18.9%**	**21.5%**
External causes of morbidity	**16%**	**8.9%**
Respiratory system	**9.5%**	**8.7%**
Abnormal symptoms, signs and results	**9.8%**	**10.8%**

It is noteworthy that the **external causes of morbidity** group remained the principal cause of death in the young population in 2011, accounting for 75.8 % of deaths in 1-24 year-olds and 10.5 % of deaths in 25-44 year-olds. This group represents the leading cause of premature death in both sexes in New Caledonia, with 4 000 years of potential life lost (YPLL) in 2011. (YPLL is 3.3 times higher in men than in women).

1 Natural growth rate: difference between crude birth rate and crude death rate, expressed as a per 1000 population figure.
2 Birth rate: ratio of annual number of live births to total population at the half-way stage of the year concerned, expressed as a per 1000 population figure.
3 Fertility index or conjunctural fertility indicator: sum of all fertility rates by age for the year concerned.
4 Crude mortality rate: ratio of annual number of deaths to total population at the half-way stage of the year concerned, expressed as a per 1000 population figure.
5 Life expectancy at birth expresses the mean number of remaining life years for a new-born child if the mortality trends prevailing at the time of birth do not change.
6 Infant mortality rate: ratio of number of deaths of children under one year of age to 1000 live births during the year concerned.
7 Crude perinatal mortality rate: number of still births and deaths between 0 and 6 days inclusive per 1000 total births.

Breakdown of causes of death in 2011



MEDICAL CAUSES OF PERINATAL DEATH

In 2011, 51 child deaths were reported through specific perinatal death certificates, making a total of 1 282 deaths for the 1993-2011 period.
71.3% of these deaths concerned very premature births (<32 weeks).

For the 1993-2011 period, 200 certificates involved **medical terminations of pregnancy** (MTP), the most frequent reasons for which were congenital disorders (nervous system: 25.5%, chromosomal defects: 18%, other congenital anomalies: 27.5%).

Of the 1082 neonatal deaths not including MTP, 30.9% had no determining **foetal or neonatal cause.** For the remaining 748 certificates, the cause was child-related in 90.1 % of cases and mother-related (maternal condition or pregnancy complications) in 9.9% of cases. Among child-related causes, intra-uterine hypoxia and/or birth asphyxia accounted for 34.2 % of cases and **congenital defects** 16.2% of cases.

INFECTIOUS DISEASES

Notifiable diseases (not including cancers - see specific chapter)

In 2011, 1071 notifiable disease cases were reported, not including cancers.

Following the establishment of the register of acute rheumatic fever (ARF) patients, the Health Agency was not in a position to provide the 2011 figures for this report. **Two reporting categories exist:**

Emergency alert: an emergency procedure, to issue an alert and communicate individual case data without delay and using any appropriate means with no specific form or format.

Notification: a procedure for individual data transmission by the notifying physician or biologist, using a specific form for each disease.

Notifiable diseases of group B	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Amoebiasis	13	20	11	6	0	1	1	1	0	0	1	0
Whooping cough	3	0	1	0	1	72	4	1	0	1	3	2
Dengue fever	12	34	105	5 673	792	46	48	47	1 179	8 410	122	15
Diphteria	0	0	0	0	0	1	0	0	0	0	1	0
Typhoid and paratyphoid fever	0	3	0	0	0	1	0	1	0	0	0	2
Viral Hepatitis B	40	49	31	39	29	11	9	31	102	33	5	6
Viral Hepatitis C	0	1	0	0	0	0	0	2	0	2	0	1
Leprosy	7	7	2	4	8	4	7	2	6	7	8	10
Leptospirosis	28	23	49	23	13	40	65	53	157	162	42	138
Meningococcal meningitis	4	9	10	11	3	5	7	13	9	8	10	10
Indigenous and imported malaria	3	1	1	5	6	0	0	0	2	0	10	1
Measles	0	0	0	0	0	0	1	0	0	0	0	0
HIV related syndromes	21	15	17	8	7	13	10	21	15	13	14	18
Tetanus	0	1	0	0	0	0	0	0	0	0	0	0
Collective food poisoning (foci)	3	9	1	6	0	8	10	8	6	9	11	28
Tuberculosis (not inc.latent infection)	171	100	112	82	84	72	90	67	80	83	59	50

In 2011, no cases of poliomyelitis, botulism or brucellosis were observed.
138 cases of leptospirosis and 15 cases of dengue were reported.
Chikungunya was recorded in New Caledonia for the first time, with 33 cases.

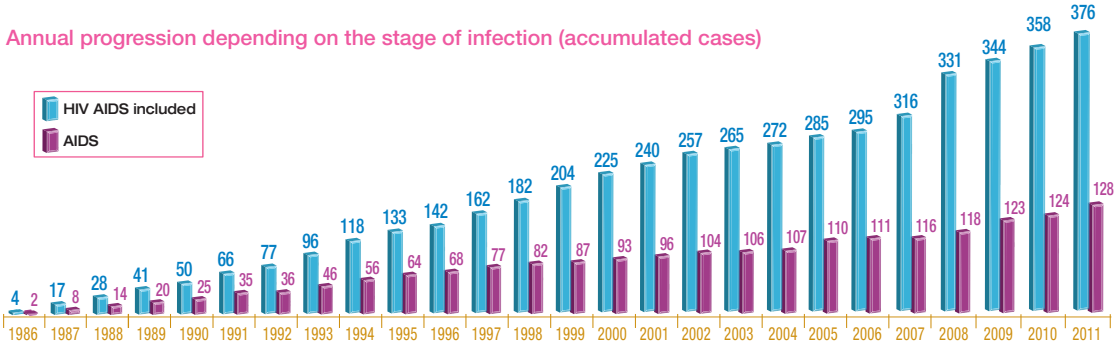
Sexually transmitted infections

Notifiable diseases of group C	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Condyloma acuminatum	26	27	28	26	17	3	12	22	28	25	30	1
Genital herpes	2	3	3	5	4	2	3	10	8	7	5	12
Mycoplama infections	115	119	107	90	93	108	134	219	184	160	104	3
Genital chlamydial infections	94	96	72	86	88	71	96	148	191	202	150	319
Gonococcal infections	52	55	49	31	33	35	58	82	90	77	68	141
Syphilis	24	16	11	10	20	15	21	38	36	46	38	258
Uro-genital trichomonasis	250	203	156	175	158	115	98	206	118	153	147	26
Other veneral diseases	198	121	77	75	55	40	50	60	72	86	13	3

The 2011 data relating to chlamydial genital infections, gonococcal infections and syphilis are drawn solely from the monthly laboratory records, because of extensive under-reporting.

Statistical data regarding HIV infection come from notifiable disease surveillance activities and from specific initial notification forms and supplementary notifications of HIV-induced syndromes.
18 new HIV-positive cases were recorded in 2011 (including 8 confirmed by laboratories outside New Caledonia and 10 diagnosed and confirmed by IPNC – New Caledonia Pasteur Institute).
This brings to 376 the accumulated number of cases since 1986.

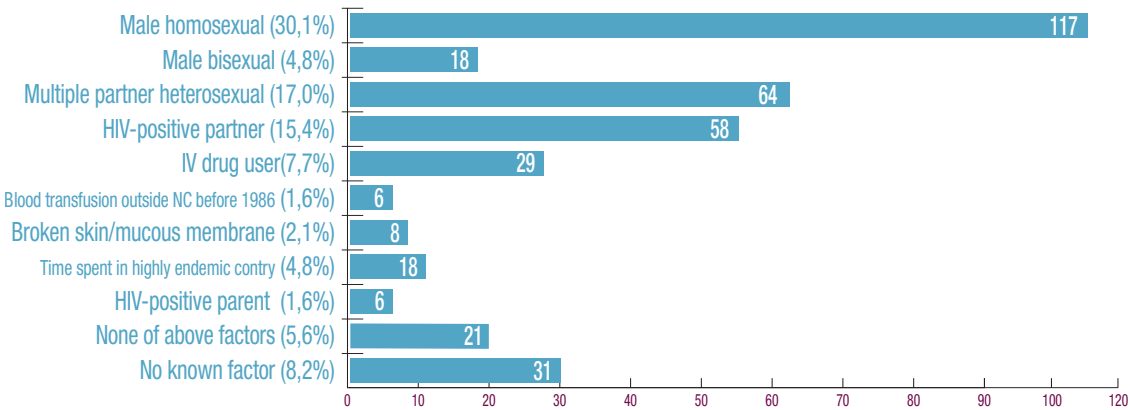
Annual progression depending on the stage of infection (accumulated cases)



As at 31st December 2011, the sex-ratio of accumulated cases was 2.8 males for 1 female.
The most affected age group, as in previous years, was the 20-39 year group, with a rate of 31.4 per 10 000 population.

HIV risk factors

Breakdown of the 376 HIV-positive cases by risk factor

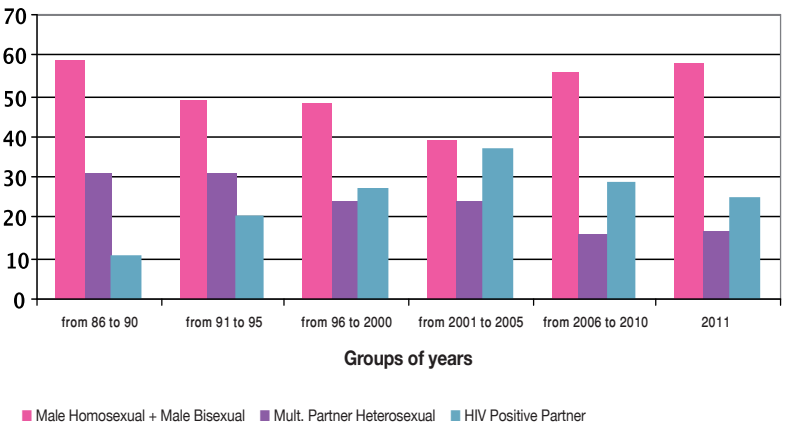


With regard to the cases whose risk factors are known, it can be noted that 79.3 % are linked to a sexual mode of HIV transmission, 52.5 % of which (135/257) are male homo/bisexuals.

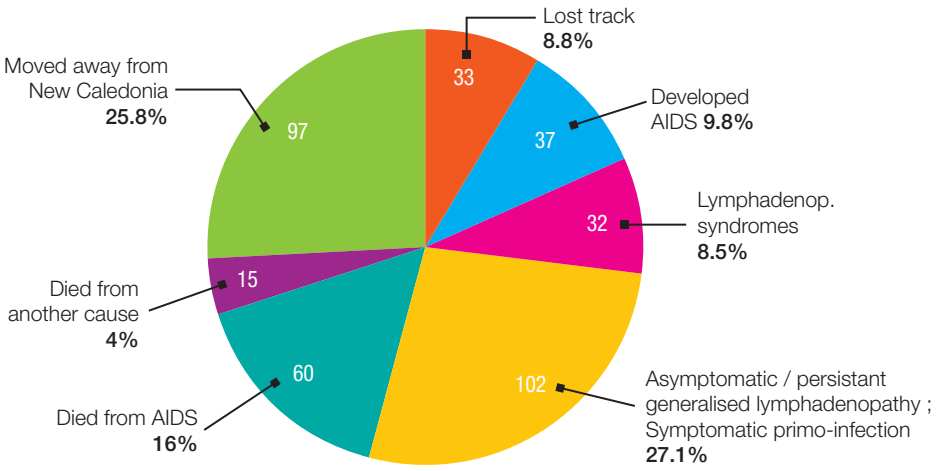
After a gradual downward trend over the 1990-2005 period (58% to 40%), the male homo/bisexual risk factor percentage has again tended to rise over the past 6 years and reached a proportion almost identical to that recorded early in the epidemic.

It should be noted that, over time, the 'HIV-positive partner' risk factor percentage has increased considerably, from 10.3% (from 1986 to 1990) to 34% (from 2001 to 2005), then regularly fell to account for 22.6% of sexual risk factors in 2011.

Trends in sexual risk factor distribution by period from 1986 to 2011



Breakdown of the 376 HIV-positive persons, by last known status



Last known status of HIV-positive persons

'Last known status' refers to the assessment contained in the latest supplementary report prepared by the attending physician. Of the 376 HIV-positive patients, **75 have died** (including 15 of a cause other than AIDS) and 130 have moved away from New Caledonia or are no longer being monitored. Among the latter, some have probably left New Caledonia for good.
In New Caledonia, of the 18 cases recorded in 2011, 14 (77.8%) were at the asymptomatic stage and 4 (22.2%) were at the confirmed AIDS stage.

Free and anonymous testing and counselling centres (CDAG)

In 1992, the Territorial Congress Standing Committee introduced free and anonymous testing and counselling centres (CDAG) for the human immuno-deficiency virus (HIV) (Resolution N° 211/CP dated 30 October 1992). This resolution was superseded by Resolution N° 154/CP dated 16 April 2004, specifying the standards of training required and the operating conditions for these CDAG.

The consultation is conducted by a consulting physician or a midwife approved by the Medical Inspector after receiving specific training on counselling in relation to HIV infection testing. Approved personnel receive patients either in their surgery (private practitioners and midwives) or at the counselling centres (these centres must meet requirements laid down in the resolution: the venue must be part of a multi-purpose medical centre, the counselling must protect the confidentiality and anonymity of the process and the staff must have received special training for counselling).
Each consultation must include a counselling session covered by a questionnaire, developed by the Medical Inspector and completed by the doctor or midwife.

Since November 2005 and in 7 successive training sessions, 117 health professionals (80 doctors and 37 midwives) have been trained. At the present time, under the influence of their movements and depending on whether or not their certification was renewed, 73 of them (41 doctors and 32 midwives) have valid certification and are active in New Caledonia. For 13 of them (7 doctors and 6 midwives), their certification has only been operational since the second half of 2011.

The CDAG 2011 records were therefore compiled with contributions from 45 professionals (of the 73 possible, i.e. 61.6%of them).

An analysis of the 2 410 strictly anonymous questionnaires completed in 2011 and returned to the DASS-NC Health Action Department, showed a slight 3.4% increase in the number of reports received in 2011 as compared to 2010.

- Under-35s accounted for over ¾ (78.4%) of patients (43.2 % between 15 and 24 years and 34.6% between 25 and 34 years).
- European patients accounted for 45.7% of consultations. Melanesian patients represented a little over one third (34.9%).
- 'Risky behaviour' was referred to in 35.3% of cases, far more than 'early stage of relationship' (20.5%).
- 'Pregnancy' was a reason for coming in 12.3% of cases (88.6% pregnant women and 11.4% spouse or partner).

It should be noted that 121 patients (5% of patients) reported a split condom as the reason for coming in.

Conclusions

The 2011 analysis confirms conclusions from previous years:

- The majority (59.1%) of the data analysed in 2011 relates to the Noumea 'ESPAS CMP' (the Multi-purpose Medical Centre of DPASS Southern Province, referred to in previous years as the Noumea CDAG). The expansion since 2006 through 7 successive training sessions to117 professionals certified to conduct consultations has made it possible to gradually increase and diversify the CDAG's range of patients, mainly through increasing territorial coverage.
- The number of consultations conducted outside the ESPAS CMP structure increased from 231 in 2006 to 985 in 2011.
- The geographical distribution of these 73 certified professionals (41 doctors and 32 midwives) who were still active in 2011 is strengthening the supply of services to the community in the screening and prevention areas. It remains necessary however to improve the availability of screening facilities in some parts of New Caledonia and especially in the Islands and Northern Provinces in order to offer a better service all areas.
- The importance of the ESPAS CMP (especially the pilot training and incentive role played by the team there) is evident in the high number of tests carried out and the number of people who, over 19 years, have enjoyed personalised treatment whether or not followed by testing, but which only extends to the population located close to the centre.
- Research on patient characteristics has enabled us to detect risky behaviour and lack of understanding of preventive methods and virus transmission.

Sexually transmitted infections

127 notifications were received in 2011, almost all of which (87.4%) came from the provincial medical districts and the Southern Province dispensaries (ESPAS-CMP multi-purpose medical centre, mother and infant health protection centre and family counselling services) because of under-reporting by the private sector.

Despite this under-notification, prevention, information and screening work should be kept up, even if certain diseases such as syphilis are less common.

The number of notified STI cases remains higher in women (84%) than in men (16%). This should be related to the reproductively active age period when women see a practitioner more often to start or check contraception, but also for prenatal care.

STD / Sex	Male	Female	NA	Total	%
Molloscum contagiosum	0	0	0	0	0
Soft chancre	0	0	0	0	0
Genital herpes	0	2	0	2	1.6
Condyloma acuminatum	0	1	0	1	0.8
Urogenital candidiasis	0	7	0	7	5.5
Syphilis	15	34	0	49	38.6
Gonococcal infections	3	8	0	11	8.7
Other veneral diseases	0	1	0	1	0.8
Urogenital trichomoniasis	0	27	0	27	21.2
Mycoplasma infections	0	3	0	3	2.4
Chlamydial genital infections	2	22	2	26	20.4
Total	20	105	2	127	100

Medical laboratory data also emphasize the need for surveillance and data collection. In recent years the trend is a clear drop in the number of STI notifications (especially in the private sector from 2000), while the demand for biological testing and the rate of positive results (at IPNC in particular) are not decreasing.
These discrepancies underline the need to improve the STI notification process, and therefore obtain more representative results at the scale of New Caledonia.

Viral hepatitis

4 new cases of hepatitis B were recorded in 2011; all concerned adults.

The proportion of Hepatitis B cases in children under 15 years has diminished as a result of the introduction of systematic vaccination of all newborns in 1989 (38% in 1992, 5.8 % in 1996, 6.4 % in 1998, 2.5% in 2000 and 0 % since 2005).

The 3 cases in 2003, which raised the rate to 7.7 % for that year and confirm the need to vaccinate at childbirth, should be noted. There was 1 case of Hepatitis C in 2011.

Tuberculosis

The World Health Organization has already advised that the number of tuberculosis cases has risen spectacularly in Europe and North America in the last few years.

Among the factors contributing to this resurgence, WHO reports the deterioration of tuberculosis control programmes and the link between tuberculosis and HIV. Also, new drug-resistant bacteria are developing throughout the world.

In New Caledonia, **50 new cases** of tuberculosis were notified in 2011 (59 in 2010), including 33 cases of **pulmonary tuberculosis** (39 in 2010). After a drastic fall of the incidence rate in 2003 (17 per 100 000 population), the incidence rate in 2011 was equal to **19.8 per 100 000**. Even though there has been a downward trend since the beginning of the 1990s, it remains at high levels in comparison to industrialized countries, and at a lower level than world incidence.

12 cases were recorded from **direct positive** testing (23 in 2010), **all of pulmonary tuberculosis**. Contagious tuberculosis enables tuberculosis infection to perpetuate itself. Diagnosis must occur as early as possible, treatment must be strictly followed and the identification of infected persons commenced as soon as reliable treatment starts. The incidence rate of tuberculosis from direct positive testing (**smear-positive**) was **4.8 per 100 000** (9.4 in 2010).

Incidence/100 000 of all forms of tuberculosis and sputum-positive tuberculosis

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
All forms	64.4	50.1	51.1	40.1	48.3	28.8	30.1	17	28.5	22.8	21.6	19.6	20.9	25.7	24.1	19.8
Smear positive	21	17.5	18.7	13	11.4	9.8	9.6	6.3	8.8	7.3	5.1	5.8	5.3	7.3	9.4	4.8

Treatment

By definition, tuberculosis is considered cured when sputum specimens test negative two and five months after the beginning of treatment.

If these tests are not performed, treatment is said to be only completed or finished. The WHO strategy regards a programme to be efficient if the rate of cure is above the 85 % mark.

For patients tested in 2010, **a rate of cure of 78.3%** was observed.

Patient characteristics

A detailed study of the 476 tuberculosis cases notified over the last 9 years, all types combined (from 2003 to 2011) shows that 71% of the cases are **pulmonary forms.**

All municipalities are affected by the disease, which is more frequent however in Belep, Ponerihouen, Hienghène, Houaïlou and Kaala-Gomen, where rates are higher than in other areas.

The diagnosis was made from clinical signs in 70% of the cases. 8% of new cases were relapses.

In metropolitan France, this disease still occurs, with an incidence rate equal to 8.1 per 100 000 population in 2010.

Regional disparities are observed, with the highest rate in the Ile-de-France region where it is similar to that of New Caledonia.

Note (2007)

High notification rates were observed in certain population groups, such as persons born abroad (41.5/100 000), in particular in sub-Saharan Africa (130/100 000) and those having arrived in France less than two years previously (251/100 000) as well as persons with no fixed abode (214/100 000) and persons aged 80 years and over (21.7/100 000).

Acute rheumatic fever

Acute rheumatic fever (ARF) mostly affects children and adolescents and is a disease with severe medical, human, social and economic consequences.
Acute rheumatic fever is a possible consequence of a probably auto-immune mechanism of bacterial angina due to a group A beta-haemolytic streptococcus (GABHS). It is common among children but in New Caledonia outbreaks can occur very late in life (age 35).
With the adoption of a resolution dated 11th August 1994, the Territorial Congress decided that acute rheumatic fever was one of 9 priority preventive programmes.
A register was set up to monitor the situation in 1999.

In 2011, careful attention was given to the application specifically developed for ARF. This task follows on from the register update completed in 2008 which is now showing its limitations. This total reconstruction will enable secure data capture and make it easier to extract reliable epidemiological data. It should also enable health professionals to directly enter data.

The register cases are also being validated at the same time. Through this process, many patients whose diagnosis was not prepared on the basis of international criteria can be removed from the register. It is likely that this extensive task will lead to a reduction in the prevalence figures for rheumatic heart disease.

The newly updated data will be available by the end of 2012. As at 24 October 2012, all we can say is that 86 new cases were recorded in 2011, almost half of whom were living in the Northern Province.

It should also be noted that the treatment protocols were changed to take into account the new recommendations from the World Heart Foundation (WHF) and also as part of a strategy to harmonise practices in the Pacific region, especially by New Zealand and Australia. The preferred treatment for long-term prevention of complications continues to be benzathine penicillin G (Extencilline®) whose injection frequency changes to once every four weeks with 2 different dosages depending on the patient's weight.

According to WHF, the Pacific is one of the world's regions the most affected by ARF, with the highest incidence and the second highest prevalence.

A country is considered to be ‘at risk’ when:

- there is an incidence above 30 per 100,000 in the 5-14 age group,
- there is a prevalence above 2 per 1000.

The incidence rate in the 5 to 15 year-old age group population in New Caledonia is 116 for 100,000 children.

The New Caledonia prevalence rate (currently under review) is estimated at 7.6 per 100 000 population.

Using WHF criteria, New Caledonia can therefore be considered as a country at risk

Conclusion

The ARF prevention programme is complicated by the duration of treatment, the young age of patients and the number of stakeholders involved. It has various original features, introducing novel public/private cooperation solutions and screening systems that are now pointless in developed countries because the disease has virtually disappeared, and which are too costly for developing countries where ARF is even more widespread than in New Caledonia.

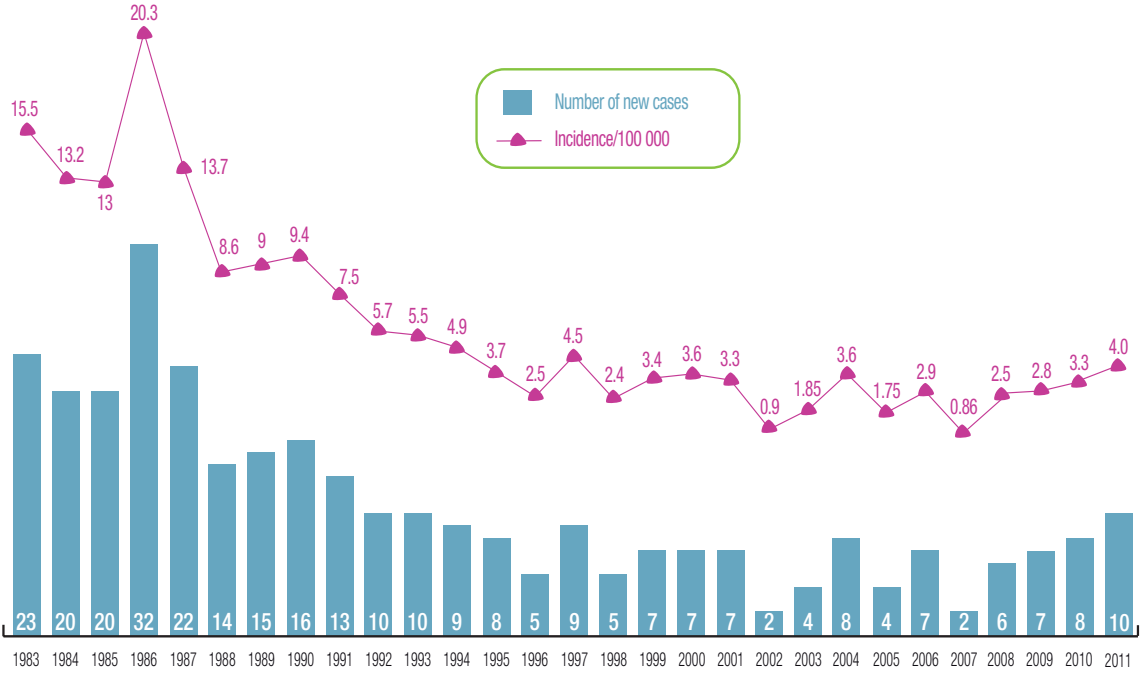
The Acute Rheumatic Fever (ARF) team in the New Caledonia Health and Social Services Agency (ASSNC) organised a workshop on ARF and chronic rheumatic heart disease from 12 to 14 December 2011. Over the three days, participants expressed a strong wish to develop a close working partnership between the three French-speaking countries in the Pacific. It was further decided to keep track of the Australian strategy, and if necessary adapt it to the setting concerned, because it is currently the most responsive and the most influenced in its updating by evidence-based arguments.

Leprosy

Leprosy (or Hansen's disease) is a chronic infectious disease caused by the acid-fast bacillus *(Mycobacterium leprae*, formerly Hansen's Bacillus), transmitted through direct, intimate and prolonged contact with an infected person. The leprosy registry covers 29 years, from 1983 to 2011 and comprises 310 records.

The Hansen's disease control programme is conducted by the dermatology department of the Nouméa CHT (Territorial Hospital). Screening in New Caledonia is essentially passive, the large majority of patients being referred by either their attending physician or their dispensary physician.

The multidrug leprosy treatment (MDT) programme has reduced the prevalence of leprosy in New Caledonia and this disease is no longer a major public health problem.
With 10 new cases in 2011, the incidence rate is 4 per 100 000.
In 2011, 7 new cases were multi-bacillus.



In the 310 cases recorded since 1983, the following was observed:
- A male predominance: 204 men and 106 women.
- An ethnic disparity, with higher representation of the Melanesian community (262 persons) than of other groups (Europeans: 31 cases; others: 17 cases).

Prevalence

In 2011, only 12 patients were treated with multidrug therapy, which represents a prevalence rate equal to 0.48 per 10 000 population.

International situation

***Source:* WHO**

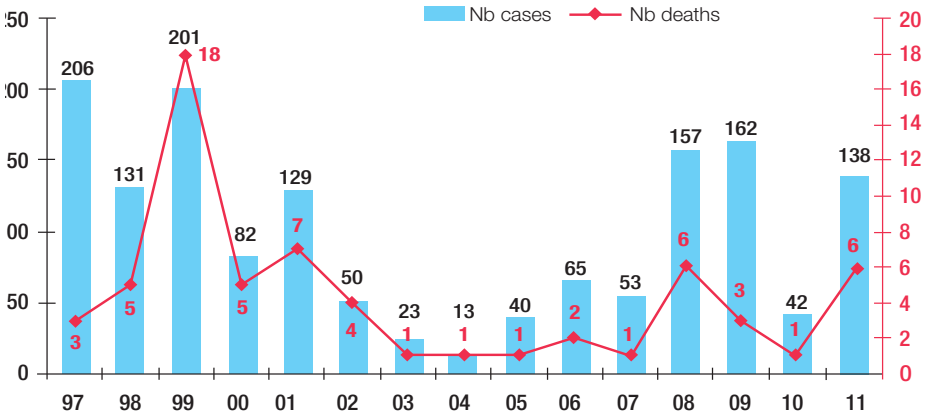
The number of new cases detected in the world in 2010 was 228 474.
This number has fallen by 6.7% over 2009. This drop results mainly from a fall in the number of new cases in India (from 367 143 cases in 2003 to 126 800 in 2010) and in Brazil.
In 2010, the number of cases in India represented 55.5% of the total number of cases in the world.

Leptospirosis

In New Caledonia, leptospirosis is an endemic disease that can surge to outbreak status depending on the weather.

In 2011, 138 cases were reported.

Number of cases of leptospirosis and deaths per year in New Caledonia from 1997 to 2011



In 2011, this disease mainly affected men (69.6%), and young adults: (the average age is 33 years). Infection is probably due to risky behaviour, daily or occupational contact with infected animals or contact with contaminated soil.

Infections in children and adolescents can be linked to exposure during leisure activities such as bathing in fresh water. Most cases were reported between January and June (89.9%).

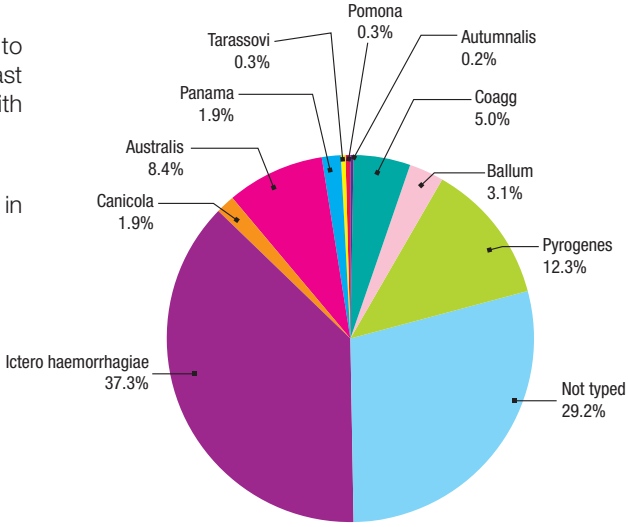
Monthly distribution of accumulated cases in 2011

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Confirmed cases	29	26	15	14	13	11	4	2	0	0	1	2
Probable cases	3	9	3	0	1	3	1	0	0	0	0	1

In 2011, 6 deaths were directly due to leptospirosis. A study of cases over the last 5 years shows geographical disparities, with average incidence higher in Bourail.

The most frequently identified serogroups in 2011 were:

- *Ictero-haemorrhagiae,*
- *Pyrogenes*,
- *Australis*.



Dengue

Dengue is a viral condition transmitted by the Aedes aegypti mosquito that lays its eggs in clean water (empty tin cans, etc.).

This arbovirus has 4 serotypes, without cross immunity, but giving permanent immunity for each of the serotypes.

Reinfection by another serotype can cause the onset of a more severe form of the disease.

After the 2003 epidemic, during which 5 673 cases and 17 dengue-related deaths were recorded, the 2005-2007 period was quieter (46, 48 and 48 cases respectively, no deaths).
Residual virus transmission occurred during the first half of 2004, then no further cases were confirmed by identification of the viral genome apart from 2 imported cases of dengue 3 and 4 in September 2005.
In 2009, an unprecedented epidemic affected New Caledonia. 8 410 cases were recorded. Serotype 4 was dominant throughout the year.

The various dengue fever serotypes occurring during epidemics for the 1972-2011 period

Year	1972	1976-78	1979-80	1989	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Type 1							1				12	64	563	177		3	27	199	62	14	1
Type 2						1	154	1390	225		1							1	2	2	
Type 3					2212	1123	7	5							1	1	1	1			1
Type 4						12		1							1			25	253		
Total					2212	2121	251	2612	354	12	34	105	5673	792	46	48	48	1179	8410	122	15

It should be noted that typing of dengue cases began in 1996. The cases recorded during the 1995 outbreak were considered to be type 3. The same assumption was made for previous years.
2011 did not see an outbreak and, of the 3 499 tests carried out, one D-1 serotype and one D-3 serotype were identified in imported cases. 73.3% of cases were diagnosed between January and April 2011.

Chikungunya

Chikungunya, a viral disease transmitted by the same vector mosquito as dengue, is due to an RNA arbovirus (alphavirus from the Togaviridae family). It was isolated to the first time in Uganda in 1953, during an epidemic in Tanzania. The name' Chikungunya' means "the man who walks bent-over" in the Makando language.

Clinical description: after a silent incubation period of 4 to 7 days on average, high fever suddenly occurs together with sometimes intense pains, mostly affecting the extremities (wrists, ankles and joints). Other signs may also occur, such as myalgia, headaches and rashes which are sometimes itchy. The acute phase of Chikungunya infection lasts 5 to 10 days on average. It corresponds to the viremic phase, during which the patient may be bitten by another mosquito and maintain the chain of transmission by infecting that mosquito.

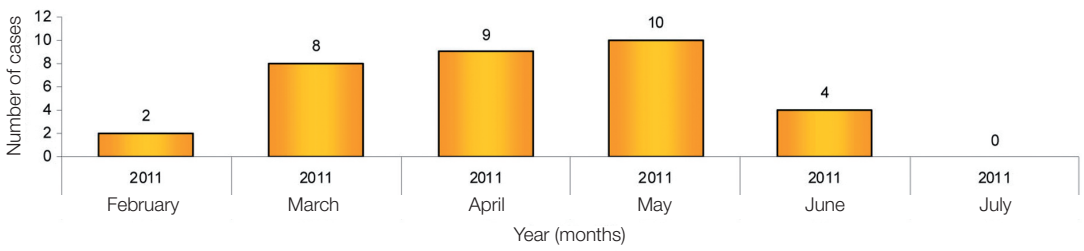
According to a study by the National Institute of Prevention and Education for Health (INPES) in 2008 on the Reunion Island Chikungunya epidemic in 2006, the acquired immunity seems to be a lasting status.

Clinical evolution: symptoms in the acute phase usually subside after between five and 10 days. During convalescence, the patient may be extremely feeble and this can be the case for several weeks. After an asymptomatic phase, relapses involving joint pains with or without fever may arise intermittently. These patients are not contagious. The disease may develop into a chronic phase featuring persistent pain causing partial incapacity for some days, weeks or months.

The 2011 epidemic in New Caledonia

After the importation of 2 cases of Chikungunya by holidaymakers returning from Indonesia, New Caledonia had to cope with an emerging outbreak with 33 biologically confirmed cases between late February and mid-June 2011 (29 cases in Nouméa, three in Dumbéa and one in Sarraméa). The total immediate responsiveness of all stakeholders in the control network (identical to the dengue one) meant that a major epidemic was avoided.

Positive cases of Chikungunya in New Caledonia (from 07/02/11 to 06/07/11)



Diseases under surveillance

Weekly disease reporting using 'grouped data' was introduced in the provincial public health services. Theoretically, they come from the two hospitals in the Northern Province, 26 socio-medical districts in the Loyalty Islands, Northern and Southern Provinces, the mother and child protection centres and the multi-purpose medical centre in Nouméa.
The 2011 data presented in this report were provided by the Southern Province.

Disease	Nb of cases 2005	Nb of cases 2006	Nb of cases 2007	Nb of cases 2008	Nb of cases 2009	Nb of cases 2010	Nb of cases 2011
Acute conjunctivitis	224	438	304	109	79	103	128
Ear infection	628	1 547	949	245	145	242	236
Acute respiratory tract infection	3 261	7 503	3 372	1 089	183	885	757
Pneumonia	30	20	19	8	621	422	476
Influenza	254	975	571	144	1 055	316	144
Salmonella infection without typhoid	0	21	0	40	0	16	34
Shigellosis	0	5	0	14	19	18	38
Other Protozoal intestinal diseases	2	0	1	0	0	0	0
Diarrhoea	276	613	375	95	137	204	250
Acute viral hepatitis other than B or C	787	68	5	1	76	3	1
Meningitis other than meningococcal	0	8	4	2	1	0	2
Ciguatera	25	67	25	5	2	2	6

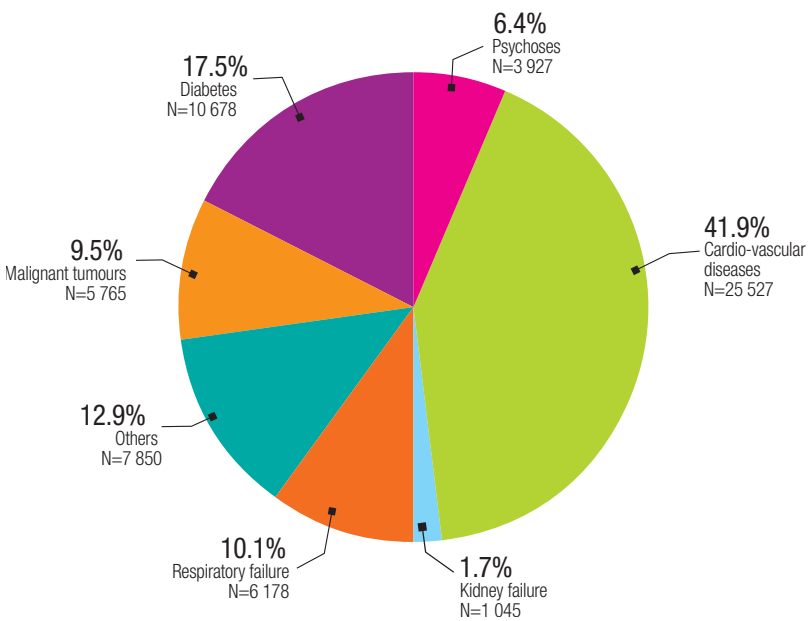
CHRONIC DISEASES

Most chronic diseases are covered as 'prolonged diseases' under the CAFAT social security system for insured persons and other entitled persons.

Since July 2002, with the creation of 'RUAMM' (a unified health and maternity insurance scheme), the number of insured persons has risen considerably to include public servants and other new contributors. It comprised 247 116 beneficiaries as at 31st December 2011.

In 2011, 37 938 persons were covered under the prolonged disease arrangement (55.7% of total RUAMM expenditure) for 60 970 conditions (certain patients may be covered for more than one disease).

This gives an indication of the main chronic diseases covered in New Caledonia as shown in the graph opposite.



Cancers

Cancers are notifiable under the relevant regulations, as required since 1994 by the notifiable diseases regulations. Most notifications come from pathologists and specialist doctors in public or private practice who attend these patients. The data sent to the Cancer Registry are checked by reference to the clinical file in order to check their quality.

All solid invasive tumours are recorded and assessed, as well as malignant haemopathies and benign tumours of the central nervous system, but for comparability purposes, the incidence data only contain invasive tumours. Baso-cellular skin tumours are no longer recorded.

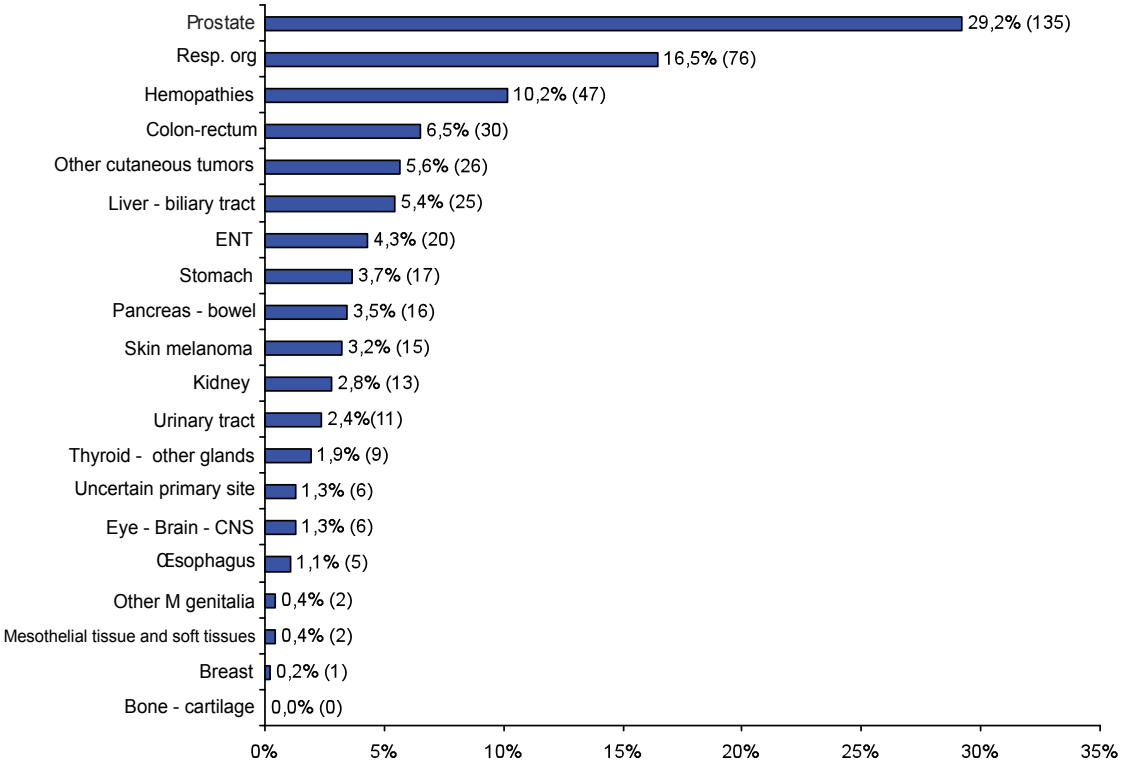
Not included in the analysis are all in situ malignant tumours, recurrences and cancer metastasis from known previous tumours already included in the Register and other benign tumours. The data collected are registered in accordance with the recommendations of the European Network of Cancer Registries (ENCR) and of the 'Institut de Veille sanitaire (InVS – National Healthwatch Institute). Topography and morphology are coded as per the 3rd Edition of the International Classification of Diseases for Oncology (ICD-0-3).

The results given below relate to the cancers detected in 2009 (record as at 31/07/2011).
In 2009, 836 new malignant invasive tumours (462 in men and 374 in women, a sex-ratio of 1.24 men for 1 woman) and 8 non-malignant tumours of the CNS were registered .
The topographical distribution of invasive tumours varies by gender.

In men, the most frequent cancer sites were:

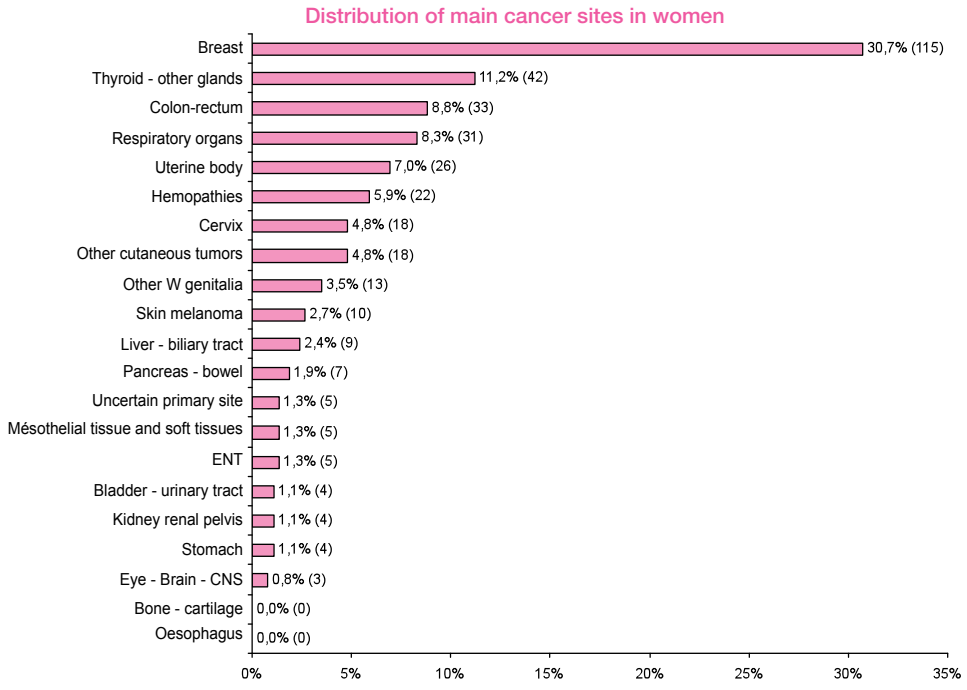
1. Prostate (135 cases, 29.2%)
2. Respiratory organs (76 cases, 16.4%)
3. Malignant haemopathies (47 cases, 10.2%)
4. Colon/rectum (30 cases, 6.5%)

Distribution of main cancer sites in men

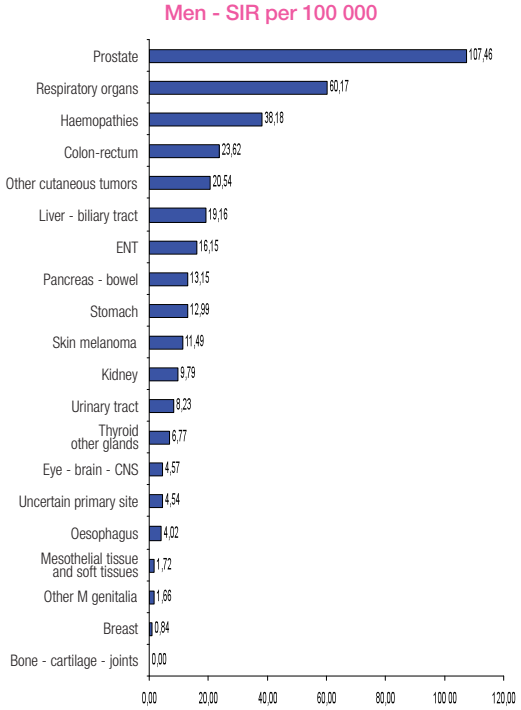


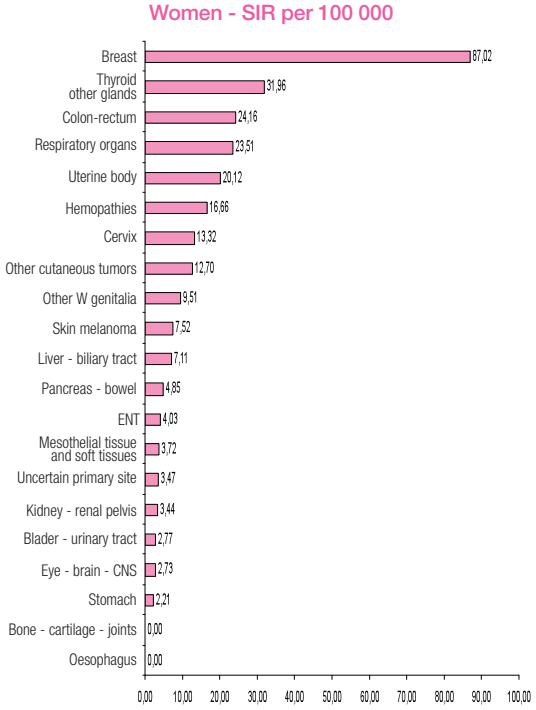
The distribution also varies by community, with a higher frequency of prostate cancer in Europeans (36.3%) and Polynesians (37.5%) and a higher proportion of respiratory cancers in Melanesians (24.3%).

In women, the main cancers were breast cancer (115 cases, 30.7%), thyroid and endocrine gland cancers (42 cases, 11.2%), colon/rectum (33 case, 8.8%) and cancers of the respiratory organs (31 cases, 8.3%).



A much higher rate of breast cancer is observed in European women (41.1%) in comparison with the other communities (Melanesians: 26.3%, Polynesians: 27.9%) and a higher proportion of thyroid cancer in Melanesian women (16.7% as against 6.2% in Europeans and 10.8% in Polynesians).
The standardised incidence rates (SIR), calculated from the reference world population, make it possible to carry out international comparisons by limiting the effect due to the differing age structures of the compared population groups.





New Caledonia is a high-incidence country for some cancers: thyroid, endometrium and cervix in women and prostate and liver in men.

Overall, in 2009 in New Caledonia the most common male cancers were of the prostate and the respiratory organs, while the most frequent female cancers were of the breast and thyroid.

Chronic renal failure

Chronic renal failure (CRF) can be defined as the gradual deterioration of filtration, excretion and endocrine secretion functions by the renal parenchyma, as a consequence of irreversible anatomical lesions.
Most renal diseases develop, albeit at different speeds, towards a stage called chronic uremia. When CRF reaches an advanced stage, it becomes essential for the patient's survival to offset the failure of the sick organ, by either a kidney transplant or a kidney graft, or by extra-renal purification.
Three facilities provide extra-renal purification through hemodialysis or peritoneal dialysis.

Hemodialysis can be received at a centre, a medical unit or a local unit. If the dialysis unit has a reverse osmosis water treatment capability, it can replace the conventional dialysis process by a more effective hemodiafiltration process.
Peritoneal dialysis comprises continuous ambulatory peritoneal dialysis (CAPD) and automated peritoneal dialysis (APD).
The third compensatory technique is renal transplantation.

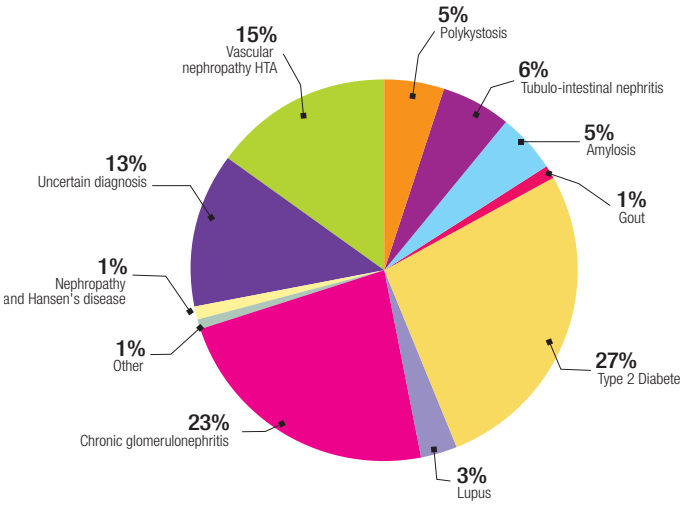
The increasing number of patients treated for chronic renal failure justifies considering this condition a public health problem. In 2011, 484 person-years were under treatment for CRF, an increase of 10.3% over 2010 and a prevalence rate equal to 1 823 per million population (PMP), a crude rate 1.7 times higher than in Metropolitan France in 2007 (1094 PMP).

With 92 new patients in 2011, the incidence rate is equal to 347 per million, which is the rate in the United States where the prevalence rate was also higher than 1 800 PMP.

The breakdown by mode of treatment shows that hemodialysis remains the principal method of treatment and concerns 66.3 % of patients, followed by peritoneal dialysis (8.9 %). Kidney transplants (24.8%) began in 1984.
Chronic glomerulonephritis and Type 2 diabetes remain the major two causes of chronic renal failure in New Caledonia.

These two conditions represent half of all new patients being treated, as shown in the following figure:

Breakdown of diseases causing chronic renal failure



The crude incidence and prevalence rates of renal failure treated in New Caledonia are relatively high overall and comparable to those of countries such as Japan and the United States. Because the age structure of the New Caledonian population is different, however, the standadise rates are probably lower.

These figures characterise the breadth of the range of health care standardised services available for renal dysfunction in New Caledonia, but do not permit an accurate assessment of the frequency of chronic renal failure.

To do so, further research would have to be considered.

Chronic respiratory failure

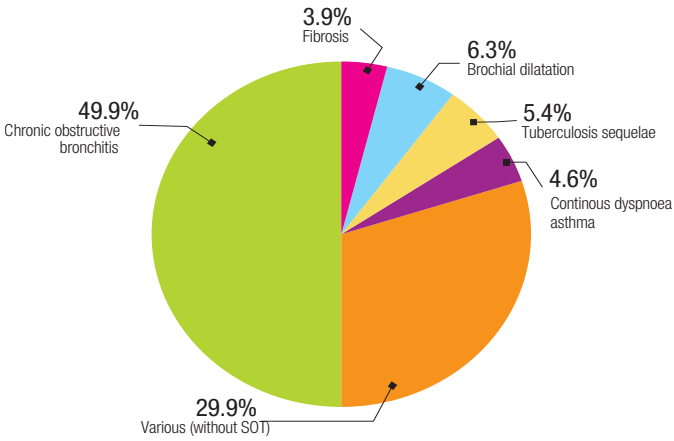
Six facilities offer home treatment for respiratory failure patients in New Caledonia.

- *'Service d'Assistance Respiratoire à Domicile' (SARD-NC), an association set up in 1990;*
- *'Oxygène Confort', a private company established in September 2004;*
- *'Respire', a private company set up in August 2007;*
- *'Respidom', a private company incorporated in November 2007;*
- *'Assistéo', a private company incorporated in 2009;*
- *'Pacific Air', a private company incorporated in March 2011.*

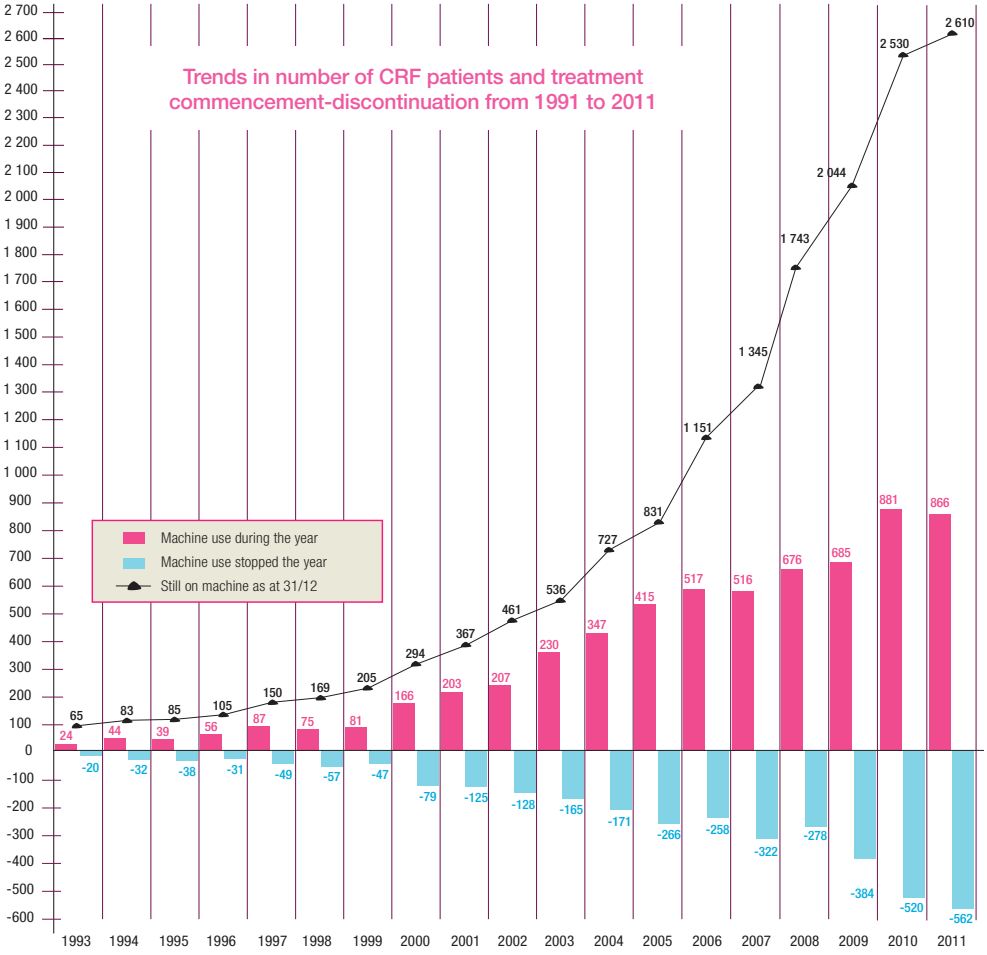
The diseases covered can be broken down into two major groups: chronic respiratory failure (CRF) and sleep apnea syndrome (SAS), which require two main kinds of treatment: oxygen therapy and positive-pressure ventilation.

To these two categories, in significant numbers since 1997, can be added cancers (terminal care or otorhinolaryngology) and various diseases that remain unknown because of the mode of decision on treatment for short-term oxygen therapy (SOT), which is offered on prescription and yields no information on the disease requiring such treatment. The leading cause of chronic respiratory failure in New Caledonia remains chronic obstructive broncho-pulmonary disease (50 %).

Leading causes of chronic respiratory failure in New Caledonia



Trends in number of CRF patients and treatment commencement-discontinuation from 1991 to 2011



The number of patients under treatment has tended to grow exponentially since 2000, when SOT was introduced. One reason why treatment with machines ceased was patient death (23.3 % of cases of treatment discontinuation in 2011).

Deaths mainly occurred in patients with respiratory failure and terminal cancer.
The average age of patients enjoying machine treatment is 60 years.
The group concerned comprises 72.2% men and 27.8% women.

Management

Patients are either cared for in the private sector by specialists (psychiatrists, psychologists) or in the public health care system.

In the public health care system, the hospital sector is structured as follows:

1 - the General Psychiatry Department

with a number of 'Functional Units' divided into two sectors:

- **In-patient hospital sector with 6 units:** (Ward 2 - 3; Ward 4; Ward 5; Ward 6; Ward 7; Ergotherapy).
- **Out-patient hospital sector with 7 units:** (Psychiatric Treatment, Orientation and Emergency Unit ('UAOUP'); day hospital; Medico-psychological Centre (CMP); Medico-psychiatric unit for prisoners (UMP); consultation and ambulatory care services unit (UCSA), Medico-psychological units in Poindimié, Koumac and Lifou; therapeutic workshops.

In-patient hospital activity 2011	Short stay				Long stay		Total
	Ward 5	Ward 5 bis	Ward 6	Ward 7	Ward 2-3	Ward 4	
Direct admissions	443	38	6	328	112	3	930
Days of hospitalisation	6 830	3 346	88	5 681	12 053	7 191	35 189
Average length of stay	15	88	-	17	81	312	38
Occupation rate	93.6	91.7	-	78	98.5	82,6	87.6

Out-patient hospital care 2011:

UAOUP: 1 750 consultations;
Day hospital: 4 914 hospitalisation days;
CMP: 7 337 psychologist consultations; 4 315 home calls;
Penitentiary: psychological and psychiatric consultations: 2 588;
Medico-psychological centres: 6 092 consultations at Koumac and Poindimié.

2 - the service child psychiatry

comprises 5 functional units on 4 sites in Nouméa:

- The Child Psychiatry Service (CMP);
- The Anse Vata site, with the Part-time Treatment Centre (CATTP) and the Day Hospital;
- The Rue Dezarnaud site, with the Treatment and Care Centre for Adolescents (CASADO);
- The Vallée du Tir site and Koutio for the Greater Nouméa CMP.

In 2011,the active list, with 2 244 patients, is shorter than that for 2010, (-9.3%).

3 - the Geriatric Service

The number of consultations was 1 751 (+ 13.3% since 2010).

The average duration of a consultation was 49 minutes and the average patient age was 77.6 years.

The most frequent needs were memory monitoring and memory (50%) and admission requests (33%)

Suicide : one aspect of mental illness

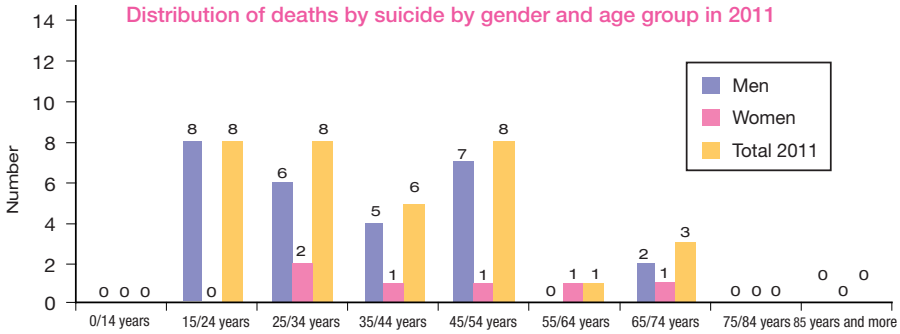
Suicide is a major public health problem in the world and particularly among adolescents. In metropolitan France, suicide is one of the major causes of premature deaths compared to other causes, especially among young adults.
Since we do not have data concerning attempted suicides, only data on deaths by suicide will be used.

In 2011, 34 deaths by suicide were recorded, or 2.6 % of all deaths (N=1320) and 21% of violent deaths, representing a crude mortality rate equal to 13.6 per 100 000 of the population (men: 22.1 per 100 000; women: 4.9 per 100 000) and a standardised rate equal to 13.6 (men: 20.6 per 100 000; women: 4.4 per 100 000).

Male suicides account for more than 82% of all suicides, or 4.5 times more suicides in men than in women in 2011 (28 men and 6 women).

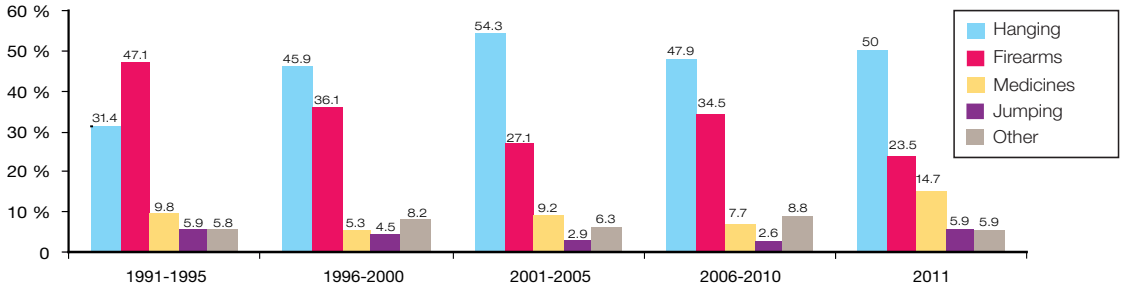
Age varies between 15 years for the youngest and 71 years for the oldest.
In men, if the number of suicides by age group is considered, the group most affected by suicide is the 15-24 year-olds with 28.6% of suicides, as against 25% in the 45-54 years age group.
In women, the 25-34 year-old group accounts for 33.3% of suicides.

Distribution of deaths by suicide by gender and age group in 2011



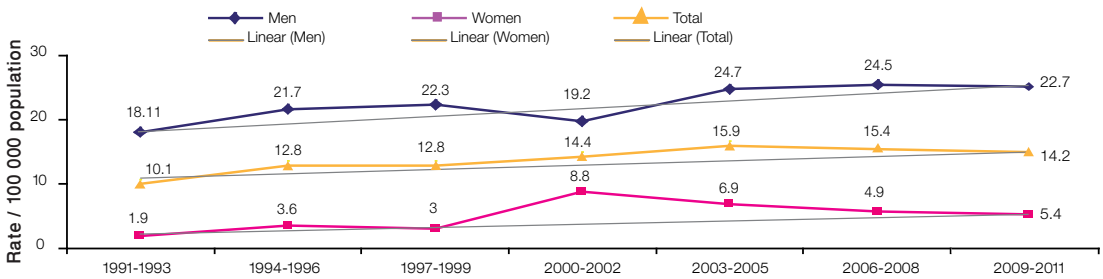
The main method of suicide in 2011 was hanging (50%).
Over the **1991-2011 period,** the proportion of suicides by hanging increased in comparison with suicides by firearm.

Trends in the main suicide methods for both genders combined



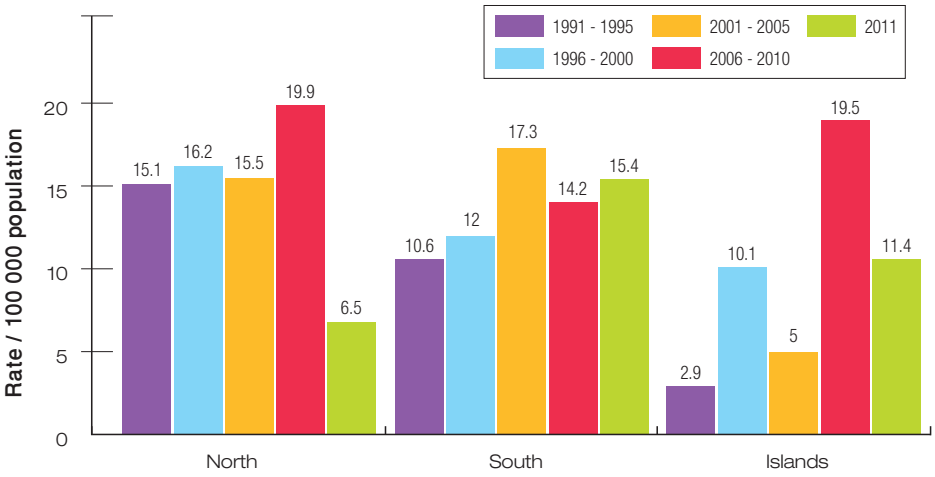
As the following figure shows, the crude annual mean rate has been tending to decrease in women since 2000 and in men since 2003.

Trends in the crude annual mean rate by gender



When these death-by-suicide rates are related to the population concerned, an increase in the mean annual rate over the 2006-2011 period can be observed in the Northern and Islands Provinces. Few suicides were however recorded in the Northern Province in 2011 in comparison with previous years.

Crude mean annual rate of death by suicide by province of residence



Comparison with Europe

The standardised mean rate observed in New Caledonia was 22 per 100 000 in men and 5.2 per 100 000 in women. The combined rate was 13.6 per 100 000 depending on age and is lower than for metropolitan France (16.0 deaths per 100 000 in 2006).
France is in 3rd position in Europe behind Finland and Austria (26.3 and 24.0 per 100 000 respectively).

Conclusion

Suicide is a public health problem that, according to the WHO, can to a great extent be avoided and each death by suicide has devastating emotional, social and economic consequences for many families

Numerous underlying and complex causes are described as producing suicidal behaviour, especially poverty, unemployment, the loss of someone close, arguments, separations in relationships and work-related worries or brushes with the law. Family precedents as well as abuse of alcohol and drugs, sexual abuse during childhood, social isolation and some mental disorders like depression and schizophrenia play a determining role in many cases.

In New Caledonia, suicide seems to be a less worrying cause of death than in European countries and less significant than deaths by road accident. However, even if the rate of suicide is lower than the rate of deaths by road accident, it is still a significant cause of death, especially among young men, that could be avoidable. Early detection of mental disorders and appropriate treatment are a good preventive strategy, particularly for young people.

Health care professionals, teachers and social workers have an important role to play in this area by creating youth mental health care networks.

Psychotropic drug consumption

All importations of psychotropic drugs for human use from mainland France are recorded by DASS-NC.

Consumption levels remained stable over the observation period.

Tetrazepam had been prescribed in significantly growing quantities for several years. This drug is a benzodiazepine not indicated for its psychotropic properties (that do exist nevertheless) but for its myorelaxant qualities.

After showing a significant increase in consumption until 2010, meprobamate use fell by half after it was announced that it would be taken off the market in 2012.

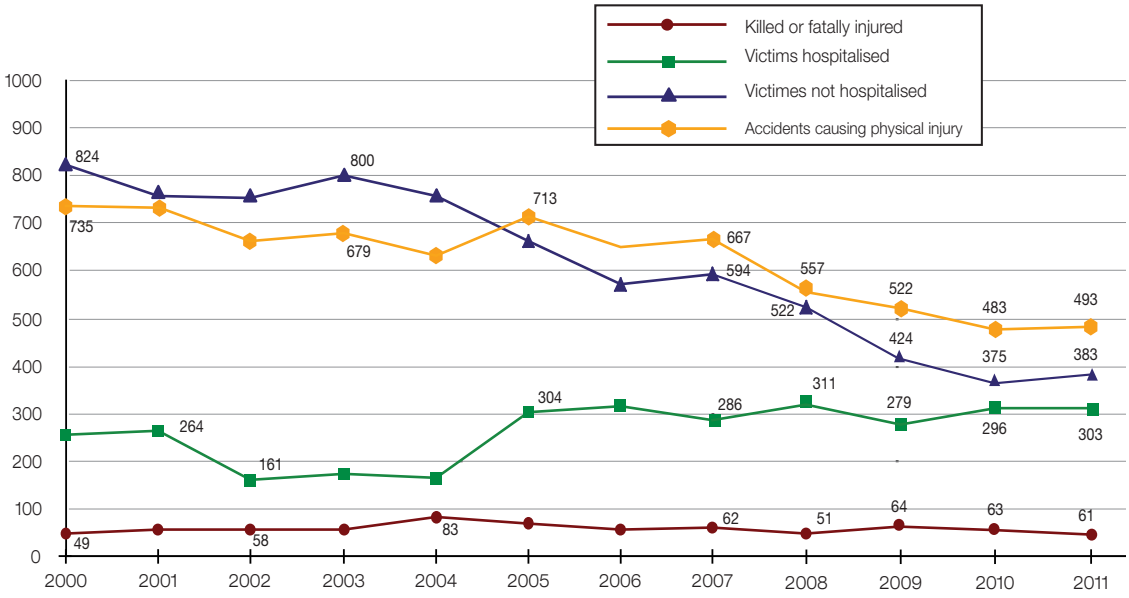
The consumption of buprenorphine is increasing constantly through its use as a substitute treatment for opiate dependence.

Road accidents

Number of vehicles on the road: annual vehicle sales have constantly increased since 2000.
In 2011, **14 194 new vehicles** were registered in New Caledonia.
The total number of vehicles on the road in New Caledonia is estimated at **150 000** according to the 2010 National Police report, or 1 vehicle per inhabitant over 20 years old.

Accidents causing physical injury: In 2011, 493 accidents **causing physical injury** were recorded for the whole of New Caledonia, producing **61 deaths or fatal injuries**, or 8.2 % of the **747 victims** (303 seriously injured and hospitalised and 383 injured but not hospitalised).
The 2011 record shows an increase of 2 % in the number of accidents causing physical injury over 2010 with 11.3% more accident victims.
The number of road accident deaths in 2011 is however higher than the mean annual figure for the past 5 years (N=59).

Annual trends in physical injury, death or fatal injury, victims hospitalised, victims not hospitalised



Three main causes of accidents

In the city of Noumea, the three clearly leading main causes of accidents concerning **73%** of the 332 accidents (2010 figures) were:

- loss of control of vehicle - speeding: 90 cases, or **27.1%** of accidents;
- failure to give way (failure to stop at stop sign or red light): 83 cases, or **27.1 %**;
- drink-driving: 69 cases, or **20.8%**.

Outside the urban area: in 2011, the main causes of accidents ranked as follows:

- 57 accidents were due to drink-driving and speeding (32.8%); 34 accidents were due to drink-driving alone (19%), 38 accidents were due to speeding or loss of control of the vehicle (21%).

Comparatively, New Caledonia has a crude rate of 256 deaths per 1 million population (pop. at 01/01/09), a figure four times higher than metropolitan France (68 deaths per million population).
(**Source:** INSEE. pop as at 01/01/10.)

INDUSTRIAL MEDICINE

3 agencies offer industrial medicine services in New Caledonia.

1 - 'Service Médical Interentreprises du Travail' (SMIT, the Business Industrial Medicine Service), responsible for occupational medicine for workers under CAFAT coverage for companies that do not have their own service. In 2011, SMIT catered for 89 154 workers in 14 386 companies. In 2011, 33 217 examinations were conducted in comparison with 34 640 in 2010.
The number of regular examinations was 14 271 and the number of non-regular examinations was 18 946.
Counted in the non-regular examinations were hiring examinations, work resumption examinations and occasional examinations.

A total of 31 636 decisions was taken during 2011. Of the persons examined, 28 125 were found to be fit for work. The others were declared to be fit with restrictions or unfit. 9 occupational diseases were detected. Musculo-skeletal disorders represent 55.5% (n=5) of cases of such diseases.
Others were lesions due to noise (2 cases), and 1 case each of infectious diseases and chronic spine complaint.

2 - Medical department of the SLN (Société Le Nickel) company, comprising two services: care medicine and preventive medicine. The medical care service takes staff without appointments and performs vaccinations. The preventive medicine service examines new staff at the hiring medical examination and conducts regular examinations. Most staff are examined annually. Highly exposed workers, such as electrode welders, undergo a regular six-monthly examination. It conducts special medical surveillance, work resumption examinations and additional screening.
It also attends to the disabled and pregnant women. Workers under special medical surveillance are those assigned to dangerous work environments or involving risks specified in **Order N° 4775-T dated 10th December 1993, article 1134 para. 1, line 2 and line 3**. Work resumption examinations are carried out after work accidents, occupational diseases, absences of more than one month and repeated absences.
Additional examinations are: chest x-rays, biological tests, basic respiratory tests, audiograms, ophthalmologic tests, toxicology, nickeluria, urinary tests and PSA dosage tests.

2011 figures: 6 worksites, employing 2 262 workers altogether, were monitored by the industrial medicine physician.
A total of 4 580 medical examinations were carried out, including 2 178 regular examinations and 2 402 hiring, work accident and resumption examinations. 11 898 additional examinations were performed (blood tests, urine tests, x-rays, ophthalmology, toxicology, etc.).

3 - The Occupational Medicine Service at CHT Gaston Bourret opened in January 1998. It is located at Gaston Bourret Hospital. It is responsible for the medical surveillance of staff at the four CHT sites: Gaston Bourret, Magenta, Raoul Follereau leprosy centre and Col de la Pirogue tuberculosis treatment centre. It also oversees staff working at the Albert Bousquet (CHS) psychiatric hospital and the Pasteur Institute.

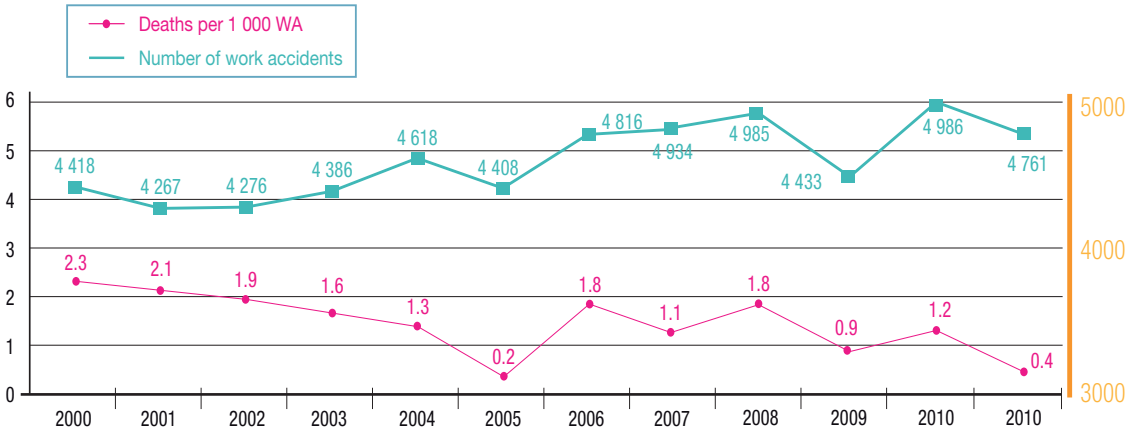
In 2011, it monitored some 2 589 people altogether for the CHT (permanent public servants and contract staff), CHS and Pasteur Institute.

WORK ACCIDENTS

According to CAFAT data: In 2011, 4 761 occupational accidents were recorded, a decrease of 4.5% over 2010. 101 commuting accidents leading to absence from work (-28.4% over 2010) and 78 occupational diseases (-8.2% in comparison with 2010) were recorded. The number of compensated sick leave days (65 441) was stable in relation to 2010 and the average duration of a period of sick leave increased from 28.2 days in 2010 to 29.8 days in 2011.

Since 2004, the number of deaths has been relatively low and varies between 1 and 10 per year.
As the graph below shows, the death rate is between 0.2 and 2.3 deaths per 1 000 work accidents (WA).

Annual trends in number of WA and number of deaths following a WA



In 2011, a decrease in the number of occupational accidents, deaths, commuting accidents and occupational diseases was observed in relation to 2010.

Addictions : alcohol, tobacco, narcotics

ALCOHOL

Consumption
In 2011, **1 878 934 litres of pure alcohol** were consumed in New Caledonia, 3.2% more in than 2010.
In 2011, beer consumption accounted for **42.3 %** of total alcohol consumption.
This figure is stable in comparison with 2010.
A decrease can be observed (1.9%) in wine consumption over 2010. In 2011, it accounted for **33.3%** of total consumption.
Spirits accounted for **24.3%** of the total, an increase of 11.6% in comparison to 2010.

Consequences of alcoholism
In New Caledonia, the consequences of alcohol consumption and in particular excessive consumption are commonly social issues or, in the health area, traumatic injuries or chronic conditions.

Mortality
In New Caledonia, medical death certificates recorded 37 deaths totally or almost totally due to alcohol consumption in 2011, or 2.8% of the total number of deaths, a crude annual rate of **14.7 deaths** per 100 000 population.
Between 1991 and 2011, 686 alcohol-related deaths were recorded and account for **3 % of the total of 23 052 deaths over the past 21 years**, or a crude mean rate equal to **15.2 deaths** per year per 100 000 population.
In addition to these 686 deaths, the figure can be extended to include deaths for which acute or chronic alcoholism was quoted as an item of further information, i.e. **616 extra deaths**, increasing to 1 302 the number of deaths that can be attributed to alcohol (6 extra deaths in 2011)

Between 1991 and 2011, therefore, **2 486 deaths** can be attributed to alcohol.
This represents **10.8%** of total mortality for the period concerned.

Youth behavioural trends

Since 2000, the French Observatory for Drugs and Drug Addictions (OFDT), in partnership with the National Service Unit (DSN), has implemented the 'ESCAPAD' declarative survey using a questionnaire offered to all the young people present at a 'defense preparation day' (JAPD). It provides information on use levels and trends in preferred products and consumption methods.

NB: **The most recent survey** was carried out in 2008 in France, the DOMs, New Caledonia and French Polynesia. It provides information on use levels and emerging trends in terms of products and consumption methods and enables very active monitoring of developments at an age that is closely concerned.

Young New Caledonians seem to have habits that are broadly comparable to those measured throughout mainland France and in the DOM-TOMs. The local trends between 2005 and 2008 differ from those recorded in the French mainland, with a rising trend towards inebriation.

The **latest ESCAPAD survey** was carried out in March 2011 in all metropolitan centres, as well as those in French Guiana, Martinique, Guadeloupe and Reunion Island.

TOBACCO

The tobacco trading monopoly in New Caledonia was initiated by a Decree dated 17th October 1916.
The 'Regie Locale des Tabacs', a section in the miscellaneous contributions department within the tax department, is in charge of supplying tobacco monopoly products. In this chapter, 1 tobacco unit is: 1 cigarette = 1 cigar = 1 gram (Seita agreement).

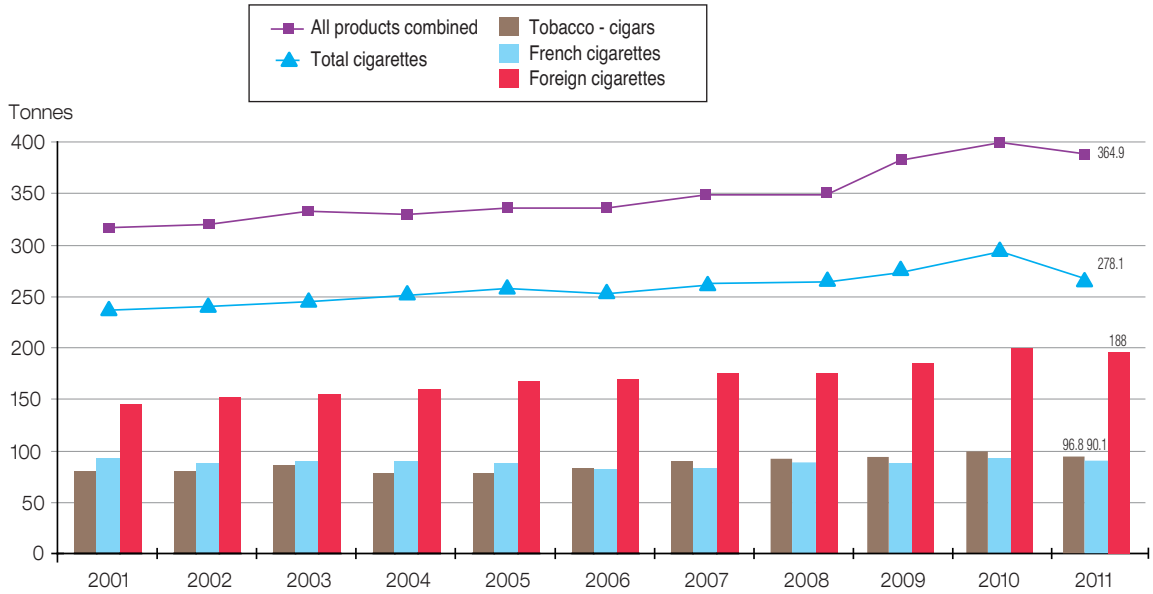
For 2011, the total sale of tobacco products amounted to: **364.9 tonnes**, or **8.7%** less than in 2010.

Although a gradual increase in annual tobacco consumption had been observed since 2001 in New Caledonia, when all tobacco products are considered together, 2011 shows a drop for the first time, with the figure falling by 34.7 tonnes in comparison with 2010.

The estimate for daily tobacco consumption, all products combined, per adult 15 years of age or older, was 5.29 grams/adult/day.
Tax revenues collected by the local tobacco monopoly increased by 12 % from 2010 to 2011.

It should be noted that the Government of New Caledonia, in its meeting on 24 December 2010, drew up a list of the new retail tobacco product prices in New Caledonia. The new price structure came into force on Saturday 26 December 2010.

Trends in the consumption of various products



Consequences of smoking

Morbidity

The main diseases related to smoking for which we are able to collect data in terms of morbidity are respiratory cancers (lungs and bronchial tubes, larynx, etc.) as well as, in some instances, the respiratory diseases covered by home ventilation or oxygen therapy.

New Caledonia cancer register figures show that, over the past ten years, on average **118 new cases of respiratory cancers** are recorded per year.

Mortality

In the same way as with morbidity, it is possible to quantify the mortality due to smoking from an assessment of the death certificates issued in New Caledonia since 1991. The number of deaths due to smoking is obtained by multiplying the total number of deaths due to a given cause by the risks attributed to tobacco, as assessed in a cohort survey by the American Cancer Society.

When the risk factor is applied to each of the diseases linked to smoking, the result is 2 566 deaths in men and 319 deaths in women thought to be smoking-related, or 2 885 for 23 052 deaths during the same period, i.e. **12.5 % of deaths**, representing a mean crude rate of smoking-related deaths of **63.3 per 100 000.**

The data from metropolitan France showed, in 2000, that 20 % of the total number of male deaths was smoking-related, as was 2 % of female mortality.

ILLICIT DRUGS

Our information comes from seizures by the police, 'gendarmerie' or customs services, which are covered by their annual reports to the pharmacy inspectorate.

The main substance concerned in New Caledonia, by far, remains cannabis.

Small quantities of LSD were seized in 2007, 2009 and 2010.

Small amounts of ecstasy were seized in 2008, 2009 and 2011.

The efforts by the Gendarmerie to combat cannabis use are having visible results in terms of volumes of seizures. The majority of seizures concern plants. One plant is equivalent to 200 g of cannabis.

Expressed in terms of total population, these seizures suggest that an economy has sprung up around cannabis dealing.

To be noted this year is a major seizure of synthetic cannabis from New Zealand.

Seizures (in g)	2004	2005	2006	2007	2008	2009	2010	2011
Cannabis	3 833 264	2 045 060	3 458 102	3 156 117	1 843 062	4 309 063	5 389 723	217 707
Cannabis resin	20	281	2	1	41	31	71	1 300
Cannabis oil	0	0	0	0	0	0	0	0
Cocaine	0	198	0	3	0	1	1	3
Heroine	0	0	0		0	0	0	0
LSD	0	0	0	8 blotters	0	17 blotters	0.04 g	0
MDMA	4	0	0			0	0	0
Methamphetamine	20	0	0			0	0	1
Ecstasy					1	1	0	1

Addiction to codeine exists in New Caledonia but has not been accurately assessed. It mostly involves the pharmacy drug Codoliprane® (association of 20 mg of codeine phosphate and 400mg of paracetamol). Besides the drug addiction aspect as such, the abuse of this medicine is risky because of its paracetamol content. There is a risk of hepatic cytolysis (which can be fatal) due to the ingestion of doses of paracetamol exceeding 10 grams, i.e. two packets of Codoliprane®.

Derivatives of N-Benzylpiperazine or BZP, whose effects are close to those of amphetamines, were classified as drugs in 2009. Their importation into New Caledonia is now banned.

POPULATION GROUP APPROACH

Women

As at 01 / 01 / 2011, the female population was estimated at **124 274**, with 53.3 % aged between 15 and 49 years old (who can considered to be of child-bearing age).

CONTRACEPTION

Contraception-related activity can be estimated from the number of prescriptions issued at provincial medical centres. However, because the data for 2010 are incomplete, these numbers will only be presented for the CCF (family advisory services) in Noumea where contraception activity has increased significantly, due probably to contraceptive promotion campaigns and the involvement of all medical professionals, whether in public or private practice, as well as those of the Mother and Child Health Protection Centre (PMI).

- In 2011, the CCF recorded an increase in consultations for contraceptive methods (41% over 2010) with increasing use of Implanon, supplied free of charge since 2008 (except for CAFAT and collective insurance schemes).

- Despite a reorganization of the doctor's work, with the preventive and screening gynecological activity being given up, the PMI continues to be a very active unit.

To more realistically assess the contraception use rate in women in New Caledonia, data from contraceptive product sales were used. If the relationship between the number of oral contraception packets sold in a year and the number necessary for a year of contraception is established, this gives an estimate of the number of women using oral contraception in a year.

This calculation is also done for other contraceptive methods such as IM (**Intramuscular** – 4 injections per year for the products used in New Caledonia) and for IUD (**Intra-Uterine Device** - it is considered that an IUD has an average life of 5 years).

In 2011, the number of women-years of contraception can be estimated as at least 34 913 (other methods of contraception such as condoms and others, are not accounted for), which would represent a coverage of 53% of the female population concerned.

VOLUNTARY TERMINATION OF PREGNANCY (VTP)

The methods of voluntary pregnancy termination in New Caledonia were defined by a Resolution dated 22nd September 2000 and have been applied since 1st January 2001.
The results of the annual 'ROSA' (Care Availability and Activity) survey were used to calculate the VTP rate per 1000 women (2011 figures not available).

In 2011, for 1000 women between the ages of 15 to 49 years considered to be of childbearing age (average population), the voluntary termination rate in New Caledonia is at least equal to 23.5 per 1 000. This very high estimate should be relate to the as-yet insufficient contraception coverage in New Caledonia, apart from the rate of undesired pregnancies that lead to a birth.

In metropolitan France, the number of abortions per 1 000 women was 14.5 in 2009.

SCREENING FOR CERVICAL CANCER

Cervical cancer screening for is one of the 9 priority areas of the prevention plan approved by the Territorial Congress in 1994 (Resolution N° 490 dated 11th August 1994, relating to a health promotion plan). A direct method of evaluating the effects of this screening is to regularly monitor the number of cervical smears done in New Caledonia through laboratory activities.

In 2011, 23 810 cervical smears were done in New Caledonia by two medical laboratories (3.7% more than in 2010). 3.9% of these cervical smears showed pathological lesions.

MATERNITY

The average age for mothers at their first childbirth has been rising regularly for 30 years. In 1980, the average age of the mother when her first child was born was 23.9 years, as against 26.9 in 2010 (12.6%) (ISEE figure).

PREGNANCIES AND DELIVERIES

In 2011, a high rate of caesarian section deliveries was recorded in both public and private facilities, exceeding the mainland French rate (20.2% in 2009).

2011	Public sector	Private sector	Total
Number of deliveries	2 362	1 664	**4 026**
Number of caesareans	427	441	**868**
% of caesareans / deliveries	18	26.5	**21.5**

MATERNAL DEATHS

Maternal death, originally defined as the death of a woman in childbirth, has more recently been redefined as any death for obstetric reasons occurring during pregnancy, childbirth or within 42 days after delivery (WHO A definition). This definition matches that of the International Federation of Gynaecology and Obstetrics, leading to the inclusion of deaths linked to abortions or ectopic pregnancies and The exclusion of all accidental or chance deaths origin occurring during pregnancy (road accidents, suicide, homicide, tumours or various diseases) if unrelated to pregnancy. 1 maternal death was recorded in 2011 (1 in 2010) and a total of 25 over the past 21 years. For the period from 1991 to 2011, the average rate was therefore **26 per 100 000 live births**.

Because of the low number of cases recorded each year, this rate is influenced by the hazards of small numbers. Caution should therefore be exercised when interpreting it, which does not obviate the need to look closely at the causes of death.

PREMATURE BIRTHS

A total of 4 159 births were recorded in 2011 (ISEE provisional figure). 0.8% of these births (n=35) occurred outside medical facilities and dispensaries. 4 124 of these took place inthe following locations:

These births are distributed as follows:

PLACE	Total births	Age of gestat. < 37 weeks	% of gestat. < 37 weeks	Births < 2 500 g	% of births < 2 500 g
P.Thavoavianon Hospital	282	15	5.3	24	8.5
CHT	2 162	288	13.3	304	14
Anse Vata Polyclinic	698	18	2.6	26	3,7
Magnin Clinic	982	34	3.4	24	2,4
Total analysable date	**4 124**	**355**	**8.6**	**378**	**9.1**

From these data, the rate of premature births can be estimated as at least 8.6% and the rate of light birth weights at 9.1%. These values are still however higher than those of metropolitan France in 2010 (7.4 for premature babies and 7.1 for light birth weights).

CAUSES OF INFANT MORTALITY

596 deaths of children less than 1 year of age were recorded between 1991 and 2011.

Perinatal diseases (foetal disorders, neonatal infections, respiratory diseases specific to the neonatal period, etc.) represent the main cause of death with 34.7% of deaths, then congenital anomalies, with 17.8% of deaths (mainly cardiovascular conditions: 36 cases and nervous system: 20 cases) and infectious diseases (38 cases).

57 cases of sudden infant death syndrome were observed during this period, representing 9.5% of these deaths.

These figures confirm the need to monitor pregnancies, so as to detect any congenital disease as early as possible, but to also inform mothers about the need to deliver in a medical facility in order to give better care at birth to any child with a perinatal disorder.

YOUNG CHILDREN

Preventive action related to child care in provincial facilities.

One of the purposes of preventive medicine is to make sure that all children are up to date with their vaccinations and vaccinate those who are not.

New Caledonia's regulations provide for all children to have mandatory vaccinations for certain communicable diseases such as diphtheria, tetanus, poliomyelitis, tuberculosis, whooping cough, measles, rubella, mumps, viral Hepatitis B since 1989, haemophilus type b infections since 1994.

Since 2006, the recommendation has been to vaccination against pneumococcal infections from the age of 2 months.

All these vaccinations are covered 100% by the social security agencies.

REGULAR MEDICAL EXAMINATIONS IN SCHOOLS

The health of schoolchildren is not restricted to diagnosing and treating sick, handicapped or ill-treated children. Many physical, educational, social and psychological factors can be identified in the school-going community. They have an impact on the child's health and determine their future health capital. Identifying these factors is an important step in combating lack of success at school.

Medical examinations are mandatory in certain grades through children's schooling.

Children receive eyesight and hearing problem detection tests, urine tests, vaccination schedule checks and a clinical examination covering skin appearance, scalp appearance and dental health, plus a cardio-pulmonary examination, a genital organ examination, a spine examination, etc. and a TB test, if necessary, in the CP and CM2 grades, with parental agreement.

In 2011, the Nouméa school medical centre carried out 13 723 medical examinations in pre-school, primary and specialised classes.

HEALTH SERVICE ORGANISATION

Demography of health professionals

PHYSICIANS

The results obtained come from the health professional records administered by the Health Inspectorate at DASS – NC, cross-checked from CAFAT records and data from the New Caledonia Medical Council.
For 2011, the figures were drawn up as at 1st November.
This group includes private practice physicians whether or not bound by contract to the public health scheme, public health physicians and salaried physicians in the private sector.

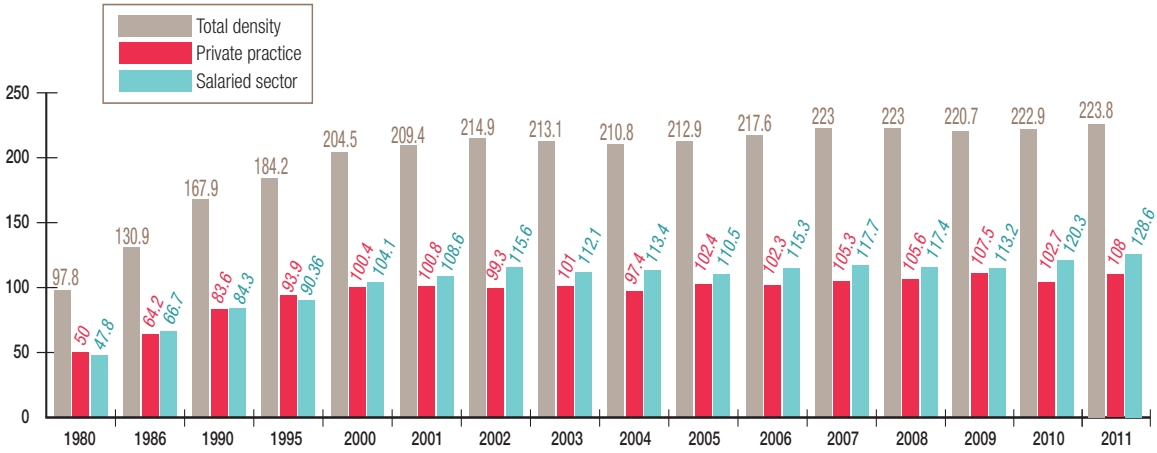
Not included are:

- physicians doing a replacement; post-holders or doctors for whom a locum is standing in are however accounted for;
- interns,
- physicians whose qualification has been registered, but who are not yet practicing or who are seeking employment.

In the ADELI ('automatic listing') file, a physician is considered as a specialist if he/she is practicing his/her specialty.
The nomenclature used is therefore related to the year concerned.

626 physicians were practicing in 2011 (272 in private practice and 354 salaried), an increase of 12.2% in comparison to 2010. In 2011, an increase (17.6%) in salaried physician numbers and a decrease of 9.6% in private practice physicians were observed. The number of physicians in private practice is controlled because of the freeze in new contracts with the social protection agencies.

In 2011, the density was 223.8 physicians per 100 000 population.



Density disparities are observed between provinces, with the lowest in the Islands Province and the highest in the Southern Province, in Nouméa in particular because of the presence of hospitals and clinics where most of the specialists and many GPs practice.

In the Northern Province, the figure falls between that of the Islands Province and that of the Southern Province.

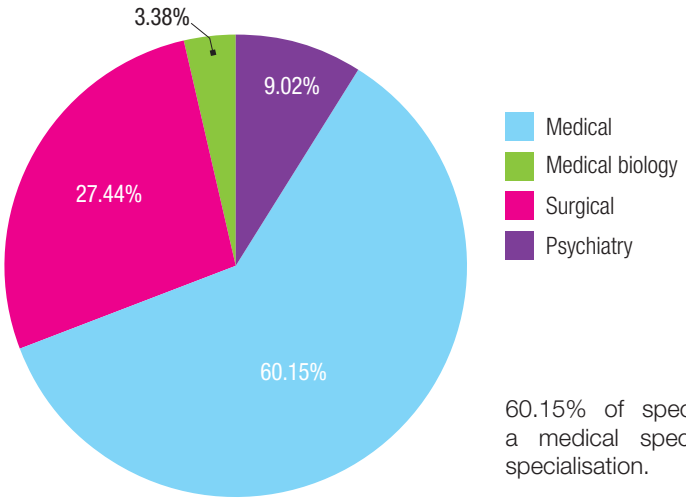
These density disparities for curative physicians are therefore as follows:

- Southern Province: 256.8
- Northern Province: 137.8
- Loyalty Islands: 100.6

297 (52.7%) of active curative physicians are general practitioners, a density equal to **117.9** for New Caledonia as a whole, which is lower than for metropolitan France which was equal to **145.5 general practitioners per 100 000 population** (estimate by ATLAS of medical demography in France – 'CNOM' as at 1st January 2009). **88.1%** of Southern Province general practitioners were working in the Nouméa or Greater Nouméa area, a density equal to **118.5** for this zone as against **137.3** for the other Southern Province municipalities taken together.

266 specialist physicians are active, representing a density of **112.3** specialists per 100 000 population in New Caledonia. The density is higher in the Southern Province and in Nouméa in particular, because of the presence of the main hospitals and technical facilities.

Distribution of specialist (curative) physicians by major group



60.15% of specialist curative physicians practice a medical specialisation and 27.4% a surgical specialisation.

OTHER HEALTH PROFESSIONALS

The numbers in each profession and distribution by area of activity come from the ADELI records, employer records and CAFAT data for 2011.

In New Caledonia, the density of dental surgeons is **45.2 per 100 000 population**.
The breakdown between the salaried sector and the private sector is respectively 34 % and 66 %.
The density of dental surgeons in private practice is **29.8 per 100 000 population**.
In metropolitan France, the average density was a little higher and equal to 65 per 100 000 as at 01/01/2009.

The total density of physiotherapists in New Caledonia is **50.8 per 100 000 population**, with the private practice sector showing a density of **40.5 per 100 000 population**. The figure in mainland France was 105 as at 01/01/2007.

The density of nurses – general, specialist and supervisors – was **528.6 per 100 000**. In metropolitan France, the density was 780 as at 01/01/2008.

The density of midwives in New Caledonia was **169.4 per 100 000** women aged between 15 and 49 years in 2009 (N=83). In metropolitan France, the density was 125 per 100 000 women aged 15 to 49 years (as at 01/01/2008).

The density of pharmacists, all categories combined, was **79.4 per 100 000** (N = 200) in New Caledonia in 2011. In metropolitan France, this density was higher and equal to 118 as at 01/01/2008.

Facilities

HOSPITAL BEDS AND PLACES (AS AT 31 DECEMBER 2011)

Short-stay:

Medicine: 206 in-patient beds at the 'CHT' and 20 day beds.

Surgery: 133 in-patient beds in the surgery unit of CHT Gaston Bourret and 6 day beds.

Obstetrics: 47 in-patient Obstetric Department beds at the CHT Gaston Bourret and 2 day beds.

Critical care unit: there are 52 in-patient beds for this unit, including 40 at CHT Gaston Bourret.

In total: short-stay wards account for 673 in-patient beds and 53 day beds.

Sector	Short-stay hospitalisation services				
Private	**Medical**	**Surgical**	**Obstetrics**	**Intensive care**	**Total**
Baie des Citrons Clinic	51	33	11	0	95
Magnin Clinic	21	40	19	7	87
Total private sector	**72**	**73**	**30**	**7**	**182**
Public	**Medical**	**Surgical**	**Obstetrics**	**Intensive care**	**Total**
G.Bourret Hospital	206	133	47	40	426
P. Thavoavianon Hosp.	20	13	9	5	7
D. Nebayes Hospital	16	0	2	0	18
Total public sector	**242**	**146**	**58**	**45**	**491**
OVERALL TOTAL	**314**	**219**	**88**	**52**	**673**

General psychiatry:

Adults : 125 in-patient beds and 25 day beds.

Infants and juveniles: 25 day beds..

Geriatric ward: 75 in-patient beds.

Medium-term stay:

Follow-up and rehabilitation care: 74 in-patient beds.

Long-term stay:

Geriatric care: 18 in-patient beds at the 'CHT' (Raoul Follereau Centre), 57 beds at CHS Albert Bousquet.

Multi-purpose local hospitalisation facilities:

These are the beds in the medico-social centres managed by the provincial health and social affairs departments in the rural areas and the islands. They number 27 with a total of 78 beds, broken down as follows:

- 5 medico-social districts in the Islands Province totalling 54 beds;
- 14 medico-social districts in the Northern Province totalling 2 beds;
- 7 medico-social districts in the Southern Province totalling 22 beds.

All these health facilities operate with a constant medical and para-medical presence (weekdays and holidays). These are local facilities whose main task is to meet the needs of the community in the curative, emergency and prevention areas.

PARA-PUBLIC FACILITIES (2010-2011)

The **'Mutuelle du Nickel'** comprises:

- The Doniambo Medical Centre, in Nouméa, with 2 ophthalmologists, 3 dental surgeons (2 full-time and 1 part-time) 1 general practitioner.
- 2 optical centres, one in Quartier Latin and one in Doniambo, where 3 optician/ spectacle-makers practice.
- 2 dental surgeries, in Thio and Kouaoua; one dental surgeon covers these two locations.

In 2010, 11 096 ophthalmological consultations and 9 445 dental consultations were performed.

'Mutuelle des Fonctionnaires' (public servants' mutual insurance scheme)
It offers:

- in Nouméa: 1 physician, 6 dental surgeons, 2 physiotherapists , 1 pharmacist,
- in Boulari (Mont-Dore): 1 general practitioner, 2 dental surgeons,
- in Bourail : 1 dentist,
- in Pouembout: 1 dental surgeon, 1 pharmacist.

In 2011, 3 058 dental consultations and 7 665 medical consultations were performed.

CAFAT: (New Caledonia social security system)
In Noumea, there are 2 socio-medical centres, one at Receiving and one at Rivière Salée, where the following doctors practice:

- 10 general practitioners,
- 4 dental surgeons,
- 2 radiologists (part-time),
- Cardiologists, paediatricians and ENT specialists working as consultants.

In 2011, 28 045 general practitioner consultations were recorded, along with 1 565 specialist consultations and 2 621 dental consultations.

ARMED FORCES HEALTH SERVICE

Armed forces health service resources and activities as at 31 December 2010

Infirmaries	Beds	Staff Physicians	Staff Nurses	Number of days	Number of consultations
Joint Armed Forces Medical Center, Noumea	12	3	5[1]	275	5 261
Marine infantry regiment for the Pacific (RIMAP) in Plum	7	3	4[1]	109	2 137
RIMAP Detachment in Nandaï - Bourail [2]	7	1	1	0.5	209
Tontouta naval air base	4	1	3	11	845
Special military service group in Koumac	0	1	1	0	625
TOTAL 2009	**30**	**9**	**14[1]**	**395.5**	**9 077**

For outpatient consultations, service families can go to the 'Centre de consultations interarmées' (Joint Armed Forces Medical Center) in Nouméa.

[1] including one nurseon a short-term assignment - [2] Closed in june 2010

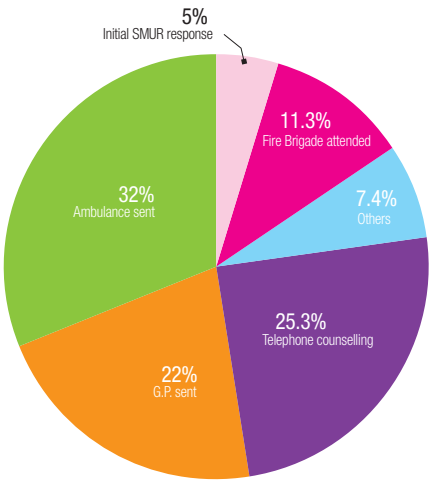
EMERGENCY UNITS

The SAMU's essential mission is to provide or obtain appropriate emergency health care to sick persons, persons with injuries and parturients, wherever they are located in New Caledonia, on a constant basis. The emergency unit's mission is to cater at any time for all patients coming to Gaston Bourret Hospital for immediate care and for whom care was not scheduled, whether in the event of an emergency or a perceived emergency.

In 2011, the 2 emergency units at Gaston Bourret and Magenta recorded 44 380 patients as against 43 457 in 2010, an increase of 2.1% (-0.9% at Magenta and +4.2% at G. Bourret). 22.7 % of these cases required hospitalisation: 29.1% at Gaston Bourret and 13% at Magenta.

SAMU - SMUR activity:

The '15' emergency call centre received 40 434 calls producing a medical response in 2011, which is 9.5% more than in 2010. These calls were processed as follows:



Medico-technical services

Blood transfusions

Activity	2007	2008	2009	2010	2011	Trend 2010/2011
Blood sources						
Persons seen	6 852	6 442	6 464	5 898	7 605	+28.9%
Donors	5 708	5 437	5 766	5 037	6 117	+21.4%
Therapeutic apheresis	441	488	545	603	490	-18.7%
Distribution						
Blood products + blood derived medicines	7 752	7 246	7 902	7 075	8 230	+16.3%

Blood bank activity

2011 was characterised by an increase (+21.4%) in blood donations and by a decrease in the number of cases of therapeutic apheresis (18.7%).

Distribution

The total number of products distributed rose (+16.3%) over 2010.

Medical biology

In the public sector, there are biochemical and haemostasis laboratories at 'Centre Hospitalier Territorial Gaston Bourret' and there is a laboratory at the Thavoavianon Hospital in Koumac.
Institut Pasteur, mostly performing serology, haematology, and microbiology, as well as having an anatamo-cytopathological function, is a private foundation recognised as being of public benefit with the task of contributing to disease prevention and treatment through public health activities, research and training.
The medical testing laboratory of the CAFAT Medico-social Centre is located in the Receiving area of Nouméa and performs chemical, haematological and microbiological testing.
14 medical testing laboratories are registered in the private sector, 8 in Noumea, 1 in Dumbea,
2 in Mont-Dore, 1 in Koné, 1 in Paita and 1 in Bourail.

Medical imaging

At the Noumea CHT, radiology is split into 2 units, one in-house in rue Paul Doumer that includes the Scanner and RMI Unit since November 2005 and one at the Magenta Annex which basically performs woman and child radiology and echography. It should be noted that an agreement between the public and private sectors gives private practice patients access to the CHT Scanner and MRI unit.
The P. Thavoavianon and D. Nebayes hospitals as well as the Cafat Medico-social Centre at Receiving all have radiology units.
In the private sector, there are 7 private radiology practices.

PHARMACIES

65 pharmacies are registered and open to the public: 62 in the private sector and 3 mutual insurance pharmacies.
These 65 pharmacies are located as follows:

- Nouméa: 24 pharmacies + 2 mutual insurance pharmacies;
- The other communes of the Greater Noumea area account for 16 pharmacies;
- Outside Greater Nouméa, there are 21 pharmacies, including 1 mutual insurance pharmacy;
- Islands Province: 4 pharmacies.

Three dispensing physicians practice in the Isle of Pines.

Pharmacies within a healthcare facility

Thirteen pharmacies within healthcare facilities have been authorized in the following facilities:
AZUR SANTE, ATIR-NC, Gaston Bourret Hospital, Albert Bousquet Hospital, P. Thavoaviannon Hospital, D. Nebayes Hospital, Magnin Clinic, Anse-Vata Clinic, Baie des Citrons Clinic; Islands Province, Northern Province, Southern Province and Vavouto Medical Centre (KNS).

Pharmaceutical wholesalers

There are 5 pharmaceutical companies in New Caledonia, with the two main wholesaler/distributors being 'Office Calédonien de Distribution Pharmaceutique' (OCDP) and 'Groupement de Pharmaciens de Nouvelle-Calédonie' (GPNC).

Medicine depots

There are 25 medicine depots operated by non-pharmacist traders. This number of businesses conducting this activity in practice is not accurately known and the situation needs to be reassessed.

GENERAL

Resolution No 490 dated 11 August 1994, as amended, relating to a health promotion and health expenditure control plan on the Territory of New Caledonia provides for annual 'health accounts' to be prepared. Health accounts make it possible to assess the cost of health care and assess trends.

DEFINITION

The cost of health care can be approached through two standardised combined concepts:

- Total medical consumption;
- Recurrent health costs.

TOTAL MEDICAL CONSUMPTION

Total medical consumption is equivalent to the value of the medical goods and services used in New Caledonia in direct response to individual health needs. It is expressed in terms of overall financial volumes arising from curative care and individual preventive medicine services offered over the year.

Health care consumption comprises inpatient and outpatient healthcare benefits delivered by hospitals, private practices, district medical facilities, provincial health centres and social welfare agencies. To health care proper should be added the consumption of **medicines and other medical goods** (optical items, prostheses, minor equipment and dressings).

Medical care and goods are grouped into the following categories: hospitalisations, out-patient care, medical evacuations, physicians' fees and the costs stemming from their prescriptions: medical auxiliaries, drugs, tests, prostheses medical transport, etc., plus dental care.

The expenditure relating to individual preventive medicine comprises the cost of vaccinations, testing and medical surveillance, as well as the expenditure incurred in industrial medicine services.

RECURRENT HEALTH EXPENDITURE

Recurrent health expenditure is equivalent to the overall effort expended on health in the course of a year by the population and institutions in New Caledonia; It amounts to the total expenditure committed by the funders of the health system: Cafat, the provinces of New Caledonia under medical aid, the supplementary cover organisations (mutual insurance companies, insurance companies, provident institutions) and households themselves.

To the total medical consumption defined above, should be added the daily allowances, research, health professionals' training, health system management costs and collective prevention outlay (public awareness and health education campaigns).

PRECAUTIONS

The following data are estimates where household and private insurance outlays are concerned, as the private insurers did not communicate any information. Expenditure is assessed through deductions based on the revenue received by hospitals and as an overall figure estimate where municipal health care expenditure is concerned (SANESCO basis = 5 % upward adjustment).
Similarly, the data communicated by certain bodies or public administrations were incomplete and a footnote states which data are estimates.

COST OF HEALTH CARE IN NEW CALEDONIA

Trends from 2009 to 2011

Between 2009 and 2011, total medical consumption increased, overall, by 13.1% and recurrent health expenditure by 13.4%.

Year	Total medical consumption in millions of CFP francs	% N-1	Recurrent health expenditure	% N-1
2009	69 661.50	+11.7%	76 755.15	+11.5%
2010	75 362.89	+8.2%	82 186. 03	+7.1%
2011	78 783.90	+4.5%	87 022. 70	+5.9%

Comparison

The use of standardised aggregates makes comparisons possible, with mainland France in particular, by expressing:

- Total medical consumption and recurrent health expenditure per inhabitant;
- Total medical consumption and recurrent health expenditure per inhabitant in relation to GDP.

As population-related data were not available for 2010 and 2011, estimates were used.

A - Trends in total medical consumption per inhabitant and recurrent health expenditure per inhabitant

	2009	2010	2011
Population of NC (ISEE data)	*245 580*	*248 000**	*252 216**
Total medical consumption per inhabitant in NC	**283 661 FCFP**	**303 882 FCFP**	**312 367 FCFP**
in France	*335 604 FCFP*	*321 956 FCFP*	*329 594 FCFP*
Health expenditure per inhabitant in NC	**312 546 FCFP**	**331 395 FCFP**	**345 033 FCFP**
in France	*426 143 FCFP*	*432 117 FCFP*	*438 249 FCFP*

** Population as estimated*

B - Trends in recurrent health expenditure in relation to GDP

In 2011, 87 billion CFP francs were spent in total on health care in New Caledonia, an average of 345 033 CFP francs per inhabitant.
Within this figure, 78.7 billion were directly spent on the consumption of medical care and goods, i.e. 312 367 francs per inhabitant.
New Caledonia's health expenditure is equivalent to the average health expenditure of developed countries.

In %	2009	2010
Recurrent health expenditure in relation to GDP in NC	**10.2%**	**10.1%**
In France	**11.7%**	**12.1%**

** Updated ISEE data*

THE ENVIRONMENT

Health is influenced by a set of determining factors, in particular, the physical and social environment, lifestyles and health care systems. Health protection and promotion policies should be designed to encompass all of these determinants.

CLIMATOLOGY

Climatological review of the year

The climate of the South-west Pacific is extensively influenced by the El Nino Southern Oscillation. In 2011, the climate of the South-West Pacific was heavily influenced by the powerful La Nina event that developed in the equatorial Pacific Ocean in the second half of 2010 and continued until May 2011. Its main effect in New Caledonia was higher-than-average rainfall during the first semester.
The very dry conditions in 2010 are nothing more than a bad memory. In 2011, the measured rainfall figures were all above the means and the annual rainfall budget is in surplus.
Minimum and maximum temperatures were higher than average overall in 2011.
Overall solar radiation was equivalent to the annual means.
Average wind speed was constant, but lower than usual.
On either side of the main island, Grande Terre, potential evapotranspiration in 2011 was less pronounced than usual. The September-to-November period was however highly critical for the country's flora.

WATER

The Government of New Caledonia exercises jurisdiction over water mainly through health and hygiene regulations. The Provinces have jurisdiction over environmental matters, particularly regulations on classified facilities (water treatment plants, for example).

According to the 'Commune Code' (the 'commune' or municipality is the smallest administrative subdivision in France), communes have jurisdiction over hygiene matters and are responsible for preventing disease outbreaks. In this regard, they must implement quality control measures for their water supply systems and ensure that quality standards apply to bathing and recreational water and sanitation facilities.

In New Caledonia, the mean volume of water billed per year and per consumer is 460 cu. m.
In Noumea, the public water supply service has been contracted to 'Calédonienne des Eaux'.
Noumea's water supply comes from the water reservoir formed by the Dumbéa River dam, the 'Aqueduct' pumping facilities at Tontouta and several pumping stations spread out along the Dumbéa River.

WATER QUALITY AT SWIMMING SITES

Only the City of Noumea carries out quality control inspections of water at swimming beaches.
The SIPRES (Environmental and Health Risk Inspection and Prevention Service) water monitoring laboratory takes and tests water samples on a regular basis.

SANITATION

Poor maintenance or lack (in most cases) of sanitation systems lead to a noticeable decrease in the bacteriological quality of water.
For that reason, water in New Caledonia is, on the whole, of inadequate bacteriological quality.
It is characterised by excessive amounts of faecal germs from both humans and cattle. This adversely affects drinking water if it is not treated but also impinges on contact uses such as swimming, washing, etc.

The most alarming situation is the contamination of the water lens in the Loyalty Islands, because it is the community's sole source of drinking water.

AIR

The 'Association de Surveillance Calédonienne de la Qualité de l'Air' (**Scal-Air:** http://www.scalair.nc) is responsible for the surveillance of air quality in New Caledonia and raising public awareness on this issue. Scal-Air takes samples and analyses the pollutants present in the ambient air **in real time**.

Four pollutants are kept under surveillance: fine particles, sulphur dioxide, nitrogen dioxide and ozone. Concentrations of each of these pollutants are classified on a scale from 1: 'very good' to 10: 'very bad'.
The highest of these four sub-indices gives the **'ATMO' index** for the day.
Real-time mapping data can be used to illustrate the index figure.

FIRES

The first responsibility for **fire protection** lies with the communes and their Fire and Rescue Centres, but all levels of government (French Government, New Caledonia, Provinces) are also involved. As part of the civil defence area, the French Government takes part in the organisation and coordination of fire prevention resources and can send in its own services in the event of a large-scale fire exceeding the communes' own capacity, in particular by deploying the Armed Forces and the Gendarmerie. Through the Department of Animal Health, Food and Rural Affairs (DAVAR) and the Agency for the Prevention and Compensation of Agricultural and Natural Calamities (APICAN), New Caledonia and the Northern and Southern Provinces fund prevention and fire-fighting activities, in particular the overflights by water-bombing helicopters.

The 2011/2012 fire season was relatively short, being brought to halt by the rain in early December which considerably reduced the fire hazard, while remaining particularly intense, because from 1 September to 8 December 2011, **245** fires destroyed **8 870 hectares,** an increase of 60% of fire-damaged surface area in comparison with the previous season. The average area destroyed by fire increased by a further 73%, rising from 16 ha in 2009 to 21 ha in 2010 and 36 ha in 2011, with no clear difference in trends between the Northern Province and the Southern Province.

FOOD

The DAVAR animal health service is responsible for monitoring the safety of food products of animal origin. This office also monitors collective catering facilities in collaboration with provincial or municipal hygiene services.

This department has a laboratory capable of carrying out microbiological testing of food items. It also has data on the in-house inspections carried out by facilities that prepare ready-to-eat cooked dishes.

The Economic Affairs Department conducts quality control of food in retailing networks as part of its fraud control work.

WASTE

Household refuse generation is steadily increasing due to the growing population and increased use of manufactured and factory-packaged goods.

Certain **specific types of waste**, e.g. purged substances or liquids, used oil, tyres, toxic waste (pyralene, lead batteries) undergo specific processing. Up to now, **potentially infectious health system waste material** has been destroyed by incineration.
A new process will soon be put into place that uses a disinfection process.

A wide ranges of actions designed to heighten **public awareness about cleanliness** have been carried out and are still extremely vital for New Caledonia.

ECONOMIC AND SOCIAL DATA (ISEE*)

Internationally, the global economic recovery that seemed to be emerging in 2010 did not eventuate, held back in particular by rising world agricultural commodity and energy prices. This imported form of inflation and the rise in the Australian and New Zealand dollar exchange rates influenced price levels in New Caledonia.
In addition, the debt crisis in the Eurozone forced France to tighten its budget policy.
Overseas tax-holiday schemes became more restrictive in 2011, with a knock-on effect on the New Caledonian economy, in particular in the construction sector.

NEW CALEDONIAN ECONOMY

In 2011, despite this unfavourable international context, the economy of New Caledonia showed its resilience. Domestic demand remained robust and contributed to the country's good economic performance.
Nickel and tourism were two powerful drivers of the economy in 2011. Intensifying activity at the Southern Province ore-processing plant and the construction of the Northern Province ore-processing plant stimulated direct and indirect activity, especially in construction. This performance was recorded to a general background of rising raw material prices, having a direct impact on prices in New Caledonia. Household demand however remained positive, assisted by a rise in the guaranteed minimum salary and in salaries determined under collective agreements.

MINING AND ORE-PROCESSING

In 2011, at the London Metal Exchange (LME), the average per-pound price of nickel for 2011 rose slightly, to reach 10.39 USD per pound as against 9.89 USD/lb in 2010 (+ 5%). It is however much lower than the exceptional 2007 average of 16.89 USD/lb.

FISHERIES AND AQUACULTURE

Tuna fishing, (three-quarters of which targeted white-flesh tuna), accounted for almost all the local oceanic fishing activity. In 2011, 2 300 tonnes of tuna were caught in New Caledonia's waters, as against 2 500 tonnes the previous year. 850 tonnes of tuna were sold outside the country, bringing in 450 million CFP francs in revenue, as against 430 million francs in 2010, a figure which rose for the fifth consecutive year.

CONSTRUCTION

With 9 140 people on average employed in the construction sector in 2011, wage employment showed a 4.6% increase in one year, representing 440 extra jobs. The BT 21 'all trades' index, which tracks overall trends in construction costs, stood at 139.33 in December 2011, as against 133.81 in December 2010.

ENERGY

In 2011, electricity production reached a new record. It increased by 6% over 2010. Power production is increasing with rising hydro-electric electricity supply and, to a lesser extent, thermal power generation. The proportion of renewable energy sources in total supply rose by 4%, due to the increase in hydro-electric power generation. In 2011, 81% of electricity in New Caledonia was produced from thermal power sources and 19% from renewable energy sources.

TOURISM

In 2011, the number of visitors to New Caledonia (tourists and cruise ship passengers) amounted to 360 000 people, 66 000 more than in 2010. This increase was mostly due to the surge in cruise ship passenger arrivals (+ 52 000) and to a lesser extent, a rise in tourist numbers (+ 13 500). In 2011, one tourist in three came from the French mainland, with a peak in the July-September period and 4 600 people in August alone (Presidential visit and NC 2011 pacific Games).

TRAVEL BY NEW CALEDONIANS

In 2011, 123 600 New Caledonians came home from overseas travel, 8 000 less than the previous year. This 6% drop comes after ten years of rising numbers. The increase in airfares (+2.8% in one year) and the restrictions on 'territorial continuity' travel subsidies may have kept some residents at home.

CONSUMER PRICES

The new consumer price index computed by ISEE was introduced in 2011 (base 100 in December 2010). This index is now based on an international expenditure nomenclature used in countries of the European Union. In December 2011, inflation was substantial, with +2.6% in one year. It was virtually

**ISEE : Institut de la Statistique et des Etudes Economiques.(Institute of Statistics and Economic Research)*

identical to 2010 (+2.7%). Inflation in 2011 was in fact much higher than in 2009 (+0.2%), when it fell to its lowest level in a decade

SALARIED EMPLOYMENT

In 2011, on average, 87 740 salaried staff were declared to CAFAT. Over the course of the year, salaried employment increased at the same rate is in 2010: +3.4%, as against +3.3% in 2010.
In 2011 on average, 63 600 salaried staff worked in the private sector, accounting for 72.5% of total salaried employment. In 2011, an average of 24 150 salaried staff were employed in the public sector, 280 more than in 2010 (+1.2%). Three-quarters of these extra staff are permanent public servants and ¼ contractual staff.
Of the 24 150 public sector salaried officers, 62% are permanent public servants and one quarter contractual staff.

PUBLIC FINANCES

In 2010, the French Government spent 129 billion CFP francs in New Caledonia, slightly down (-3.5%) on 2009.

The provisional budget situation in New Caledonia shows an increase in revenue (+16.9%) and in expenditure (+7.7%) for 2010.

This report on the health situation in New Caledonia is available on the DASS-NC website at the following address: ***www.dass.gouv.nc***

To help you navigate through the site:
On the home page, click on 'Observatoire de la santé (Health Observatory), then on 'situation sanitaire (health situation) in the menu on the left. Choose the document you are interested in and enjoy it.

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