

C A R I B B E A N

C O M M U N I T Y

S E C R E T A R I A T

**THIRTY- EIGHTH MEETING OF
THE STANDING COMMITTEE OF
CARIBBEAN STATISTICIANS**

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**Frigate Bay, St. Kitts and Nevis
28-30 October 2013**

28 October 2013

**HEALTH INSURANCE COVERAGE IN THE CAYMAN ISLANDS:
WHAT THE CENSUS 2010 RESULTS REVEAL**

Health Insurance Coverage in the Cayman Islands: What the Census 2010 Results Reveal

Maria Zingapan | Economics and Statistics Office | Cayman Islands
23rd Meeting of the Standing Committee of Caribbean Statisticians
31 October 2013 | St. Kitts and Nevis

The Cayman Islands Health Insurance Law*

- The 1997 Health Insurance Law and Regulations came into force in 1998: health insurance for all employees, with employer and employees meeting the premium costs 50-50.
- Health Insurance Regulations (2005 Revision): established the Standard Health Insurance Contract One (SHIC 1) as the minimum contract of prescribed health care benefits to be sold by approved health insurance companies.

* Cayman Islands Health Insurance Commission

The Cayman Islands' Health Insurance Law*

- The Health Insurance Law requires that every person resident in the Cayman Islands have, at a minimum the Standard Health Insurance Contract One (SHIC 1).
- Employers are responsible for providing health insurance for all of their employees, the employee's unemployed spouse and any of the employee's dependent children who reside in the Cayman Islands.
- The health insurance coverage must be obtained through an approved health insurance company.
- A self-employed person must provide their own cover with an approved health insurance company and their unemployed spouse and dependent children should also be covered.

The Cayman Islands Health Insurance Law*

- An employer shall be liable to pay the total cost of the premium of the Standard Health Insurance Contract One (S HIC1) but shall be entitled to recover directly from the salary, wage or other remuneration of each employee, 50% of the cost of the premium.
- The employer is not required to contribute to the premiums for the employee's dependent children or unemployed spouse and can deduct those amounts as arranged with the employee.
- If a person, because of limited or inadequate financial resources is unable to pay for their health care services or pay for health insurance cover, an assessment of their financial circumstances can be carried out by the Department of Children and Family Services to determine their eligibility for assistance

The Cayman Islands Health Insurance Law*

- If a person is refused health insurance coverage by two or more approved insurers, that person becomes an uninsurable person under the law.
- That person may then make an application for coverage with the Cayman Islands National Insurance Company (CINICO), an independent government-owned health insurance company, established to provide health insurance for those persons unable to obtain coverage either for health reasons or financial reasons.

Census 2010 Questionnaire

SECTION 2: DISABILITY & ILLNESS

To be answered for ALL.

P E R S O N #	<p>2.1</p> <p>Does . . . have any of the following disabilities or impairment that limits his/her activities compared with most people of the same age?</p> <p style="text-align: center;">READ CHOICES</p> <p>1....Sight 2....Hearing 3....Speech 4....Upper limb (arm) 5....Lower limb (legs) 6....Neck and spine 7....Learning disability 8....Mental illness 9....Other 10...None 99...DK/NS</p> <p style="text-align: center;"><i>Multiple responses accepted.</i></p>	<p>2.2</p> <p>Was . . . medically diagnosed with any of the following?</p> <p style="text-align: center;">READ CHOICES</p> <p>1....Diabetes 2....High Blood Pressure 3....Heart Condition 4....Cancer 5....HIV/AIDS 6....Asthma 7....Other 8....None 99...DK/NS</p> <p style="text-align: center;"><i>Multiple responses accepted.</i></p>	<p>2.3</p> <p>Is . . . covered by Health Insurance?</p> <p>1....Yes, by a provider in the Cayman Islands 2....Yes, covered by C.I. Government (e.g. Govt. employees & dependents, seamen, veterans, indigent, etc) 3....Yes, by some other provider 4....Uninsurable 5....No 99...DK/NS</p> <div style="background-color: yellow; text-align: center; padding: 5px;"> <p><u>If LESS THAN 5 YEARS, END INTERVIEW.</u></p> </div>
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	Frequency	Percent	Valid Percent	Cumulative Percent
Yes, by a provider in the Cayman Islands	32,846	61.0	61.0	61.0
Yes, covered by C.I. Government	11,537	21.4	21.4	82.4
Yes, by some other provider	2,376	4.4	4.4	86.9
Uninsurable	121	.2	.2	87.1
No	6,519	12.1	12.1	99.2
DK/NS	435	.8	.8	100.0
Total	53,834	100.0	100.0	

Analytical Framework: Demand for Insurance

Standard model:

$D(\text{Insurance}) = F(\text{Prices, Health Risk, Socio-Demographic Factors, Ability to Pay})$

Employment-based mandatory insurance model

$D(\text{Insurance}) = F(\text{Employment Agreement})$

- Contractual arrangements determines the latter's enrolment in an insurance plan.
- May depend on prevailing regulations and practices in certain industries, or occupational categories.

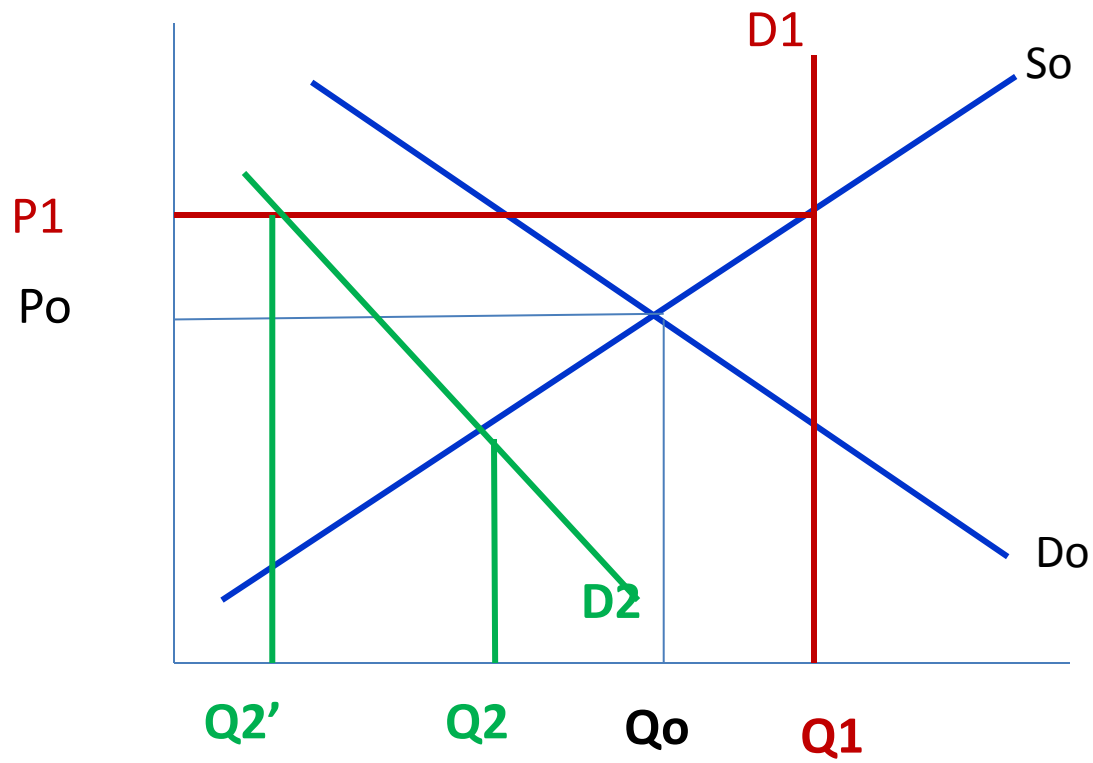
Analytical Framework: Demand for Insurance

“Dual” insurance market

$$D_m(\text{Insurance}) = F_m(\text{Employment Characteristics})$$

Adverse Effect:

An employment-based health insurance regulation benefits the employed but this could adversely affect the welfare of the unemployed due to price effect of the mandatory scheme on the demand for insurance by the unemployed.



Sub-population	Insurance Status		Total
	Uninsured	Insured	
Age 0 - 14 years	17.2	18.3	18.2
Employed	46.2	66.1	63.6
Unemployed	18.6	2.2	4.2
Not In the Labour Force	18.0	13.4	14.0
Total	100.0	100.0	100.0

Sub-population	Insurance Status		Total
	Uninsured	Insured	
Age 0 - 14 years	11.8	88.2	100.0
Employed	9.0	91.0	100.0
Unemployed	54.9	45.1	100.0
Not In the Labour Force	16.0	84.0	100.0
Total	12.4	87.6	100.0



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	Insurance Status		Total
	Uninsured	Insured	
Employed fulltime	8.1	91.9	100.0
Employed part-time	27.1	72.9	100.0
Seeking and available for work	54.9	45.1	100.0
NOT seeking, but available for work	36.1	63.9	100.0
Permanently sick or disabled	18.3	81.7	100.0
At school or a student, without a job	12.9	87.1	100.0
Wholly retired from paid work	13.6	86.4	100.0
Home duties	17.7	82.3	100.0
Other (please specify)	32.2	67.8	100.0
DK/NS	19.2	80.8	100.0
Total	12.6	87.4	100.0



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	Insurance Status		Total
	Uninsured	Insured	
Employee, Government	0.9	99.1	100.0
Employee, Statutory Authority	1.1	98.9	100.0
Employee, Government Corporation	1.1	98.9	100.0
Employee private	9.5	90.5	100.0
Self employed, WITH No employees	34.6	65.4	100.0
Self employed, WITH employees	12.4	87.6	100.0
Unpaid family business worker	13.0	87.0	100.0
DK/NS	16.0	84.0	100.0
Total	9.0	91.0	100.0

Occupation	Insurance Status		Total
	Uninsured	Insured	
Managers	3.2	96.8	100.0
Professionals	1.4	98.6	100.0
Technicians and Associate Professionals	3.6	96.4	100.0
Clerical Support Workers	2.8	97.2	100.0
Service and Sales Workers	9.0	91.0	100.0
Skilled agricultural, forestry and fishery workers	25.3	74.7	100.0
Craft and related trades workers	15.8	84.2	100.0
Plant and machine operators, and assemblers	13.6	86.4	100.0
Elementary occupations	23.2	76.8	100.0
Not Stated	1.8	98.2	100.0
Total	9.0	91.0	100.0

Industry	Insurance Status		Total
	Uninsured	Insured	
Agriculture, forestry and fishing	2.2	0.4	0.6
Mining and quarrying	0.4	0.4	0.4
Manufacturing	2.1	1.9	1.9
Electricity, gas, steam and air conditioning supply	0.0	0.7	0.6
Water supply; sewerage, waste management and remediation activities	0.2	0.7	0.6
Construction	20.1	10.4	11.3
Wholesale and retail trade; repair of motor vehicles and motorcycles	10.7	12.3	12.1
Transportation and storage	4.4	4.2	4.2
Accommodation and food service activities	7.8	11.4	11.1
Information and communication	0.8	2.2	2.1
Financial and insurance activities	0.6	11.4	10.5
Real estate activities	1.0	1.6	1.5
Profess'1, scientific and technical activities	1.0	8.0	7.4
Administrative & support service activities	6.9	5.0	5.2
Public administration and defence; compulsory social security	0.9	8.9	8.2
Education	0.9	4.5	4.2
Human health and social work activities	0.8	4.0	3.7
Arts, entertainment and recreation	3.2	2.7	2.8
Other service activities	5.1	2.4	2.7
Activities of households as employers	30.7	6.4	8.5
Total	100.0	100.0	100.0

Industry	Insurance Status		Total
	Uninsured	Insured	
Agriculture, forestry and fishing	33.2	67.3	100.0
Mining and quarrying	7.8	92.2	100.0
Manufacturing	9.7	90.3	100.0
Electricity, gas, steam and air conditioning supply	0.0	100.0	100.0
Water supply; sewerage, waste management and remediation activities	2.3	97.7	100.0
Construction	16.2	84.1	100.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	8.0	92.3	100.0
Transportation and storage	9.4	90.9	100.0
Accommodation and food service activities	6.3	93.9	100.0
Information and communication	3.6	96.4	100.0
Financial and insurance activities	0.5	99.5	100.0
Real estate activities	5.7	94.3	100.0
Professional, scientific and technical activities	1.2	98.8	100.0
Administrative & support service activities	12.1	88.1	100.0
Public administration and defence; compulsory social security	1.0	99.0	100.0
Education	1.9	98.1	100.0
Human health and social work activities	2.0	98.0	100.0
Arts, entertainment and recreation	10.5	89.7	100.0
Other service activities	17.1	83.2	100.0
Activities of households as employers	32.6	67.9	100.0
Total	9.0	91.1	100.0

	Insurance Status		Total
	Uninsured	Insured	
Diabetes	14.6	85.4	100.0
High Blood Pressure	12.5	87.5	100.0
Heart Condition	9.7	90.3	100.0
Cancer	5.9	94.1	100.0
HIV AIDS	27.8	72.2	100.0
Asthma	12.9	87.1	100.0
Other Sickness	13.3	86.7	100.0
NONE	12.3	87.7	100.0
DK/NS	19.8	80.2	100.0
Total	15.4	87.6	103.0

Disability	Insurance Status		Total
	Uninsured	Insured	
Sight	20.2	79.8	100.0
Hearing	16.5	83.5	100.0
Speech	16.4	83.6	100.0
Upper Limb (arm)	24.9	75.1	100.0
Lower Limb (Legs)	18.6	81.4	100.0
Neck and Spine	16.1	83.9	100.0
Learning disability	15.0	85.0	100.0
Mental Illness	17.8	82.2	100.0
Other Illness	15.1	84.9	100.0
None	12.1	87.9	100.0
Dont Know	20.0	80.0	100.0
Total	12.5	87.5	100.0



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	Insurance Status		Total
	Uninsured	Insured	
Caymanian	13.3	86.7	100.0
Non Caymanian	10.9	89.1	100.0
Total	12.2	87.8	100.0



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2010 Everyone Counts!

	Insurance Status		Total
	Uninsured	Insured	
\$0 - \$9,599	32.3	67.7	100.0
\$9,600 - \$19,199	15.5	84.5	100.0
\$19,200 - \$28,799	9.0	91.0	100.0
\$28,800 - \$38,399	5.5	94.5	100.0
\$38,400 - \$57,599	2.6	97.4	100.0
\$57,600 - \$86,399	1.6	98.4	100.0
\$86,400 +	0.9	99.1	100.0
DK	8.9	91.1	100.0
Total	9.0	91.0	100.0



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	Insurance Status		Total
	Uninsured	Insured	
Male	12.5	87.5	100.0
Female	12.4	87.6	100.0
Total	12.4	87.6	100.0



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Age	Insurance Status		Total
	Uninsured	Insured	
0 - 4	12.1	87.9	100.0
5 - 9	11.1	88.9	100.0
10 - 14	11.8	88.2	100.0
15 - 19	16.3	83.7	100.0
20 - 24	17.9	82.1	100.0
25 - 29	11.3	88.7	100.0
30 - 34	9.3	90.7	100.0
35 - 39	9.7	90.3	100.0
40 - 44	11.1	88.9	100.0
45 - 49	12.7	87.3	100.0
50 - 54	14.7	85.3	100.0
55 - 59	14.1	85.9	100.0
60 - 64	13.9	86.1	100.0
65+	13.1	86.9	100.0
Total	12.2	87.8	100.0

Industry	Insurance Status		Total
	Uninsured	Insured	
None	24.7	75.3	100.0
COEA, Entry Level/Common Entrance	22.2	77.8	100.0
CSE, CXC Basic	17.9	82.1	100.0
GCE/GCSE/IGCSE "O Level/CXC General (1 or 4 subjects)	16.2	83.8	100.0
GCE/GCSE/IGCSE "O Level/CXC General (5 or more subjects)	11.6	88.4	100.0
High School Diploma or Equivalent Certificate	14.5	85.5	100.0
GCE 'A' Level/CAPE/HSC/HND (1 or 2 subjects)	4.9	95.1	100.0
GCE 'A' Level/CAPE/HSC/HND (3 or more subjects)	5.5	94.5	100.0
Vocational/Trade Certificate or Diploma	11.0	89.0	100.0
Associate Degree	6.8	93.2	100.0
Bachelors Degree	3.4	96.6	100.0
Postgraduate Certificate or Diploma	1.5	98.5	100.0
Masters Degree (Medicine, Law,)	2.1	97.9	100.0
Earned Doctorate (Ph. D.)	2.8	97.2	100.0
Professional Qualifications (Computer, Law, Accounting)	2.0	98.0	100.0
Other (please specify)	9.1	90.9	100.0
DK/NS	17.8	82.2	100.0
Total	12.6	87.4	100.0

Binary Logistic Regression Results: Population

	B	S.E.	Wald	df	Sig.	Exp(B)
SEX	.005	.027	.028	1	.867	1.005
STATUS	.013	.030	.202	1	.653	1.013
DISABILITY	-.290	.057	25.901	1	.000	.748
ILLNESS	.027	.038	.494	1	.482	1.027
NOT WORKING AGE	-.299	.038	61.389	1	.000	.742
UNEMPLOYED	-2.501	.047	2813.645	1	0.000	.082
NOT IN LABORFORCE	-.619	.039	254.005	1	.000	.538
Constant	2.303	.047	2404.532	1	0.000	10.006

	B	S.E.	Wald	df	Sig.	Exp(B)
SEX	.004	.028	.020	1	.888	1.004
STATUS	.021	.030	.477	1	.490	1.021
DISABILITY	-.259	.058	20.259	1	.000	.772
ILLNESS	.083	.041	4.180	1	.041	1.087
NOT WORKING AGE	-.439	.052	71.470	1	.000	.645
UNEMPLOYED	-2.524	.048	2817.904	1	0.000	.080
NOT IN LABORFORCE	-.616	.039	249.555	1	.000	.540
AGE	-.004	.001	15.995	1	.000	.996
Constant	2.461	.061	1602.166	1	0.000	11.718

Binary Logistic Regression Results: Working Age Population

VARIABLES	B	S.E.	Wald	df	Sig.	Exp(B)
SEX	-.090	.032	7.797	1	.005	.914
STATUS	.392	.035	125.318	1	.000	1.480
AGE	-.005	.001	16.210	1	.000	.995
EMPLOYED PARTIME	-1.426	.063	514.562	1	.000	.240
NOT EMPLOYED	-2.655	.052	2635.937	1	0.000	.070
NOT SEEKING BUT AVAILABLE	-1.959	.114	296.766	1	.000	.141
PERMANENTLY SICK OR DISABLED	-.655	.138	22.498	1	.000	.519
STUDENT WITHOUT A JOB	-.615	.071	75.777	1	.000	.541
RETIRED FROM PAID WORK	-.469	.078	35.912	1	.000	.625
HOMEDUTIES	-.864	.084	105.711	1	.000	.422
OTHER EMPLOYMENT	-1.678	.175	91.827	1	.000	.187
WITH ASSOCIATE DEGREE OR HIGHER	1.652	.050	1078.902	1	.000	5.218
Constant	2.246	.075	894.710	1	.000	9.451

Binary Logistic Regression Results: Employed

	B	S.E.	Wald	df	Sig.	Exp(B)
SKILLED AGRI, FORESTRY & FISHER WORKERS	-2.089	.140	223.585	1	.000	.124
CRAFTS & RELATED TRADES	-1.489	.115	168.950	1	.000	.226
PLANT & MACHINERIES OPERATORS	-1.265	.134	89.564	1	.000	.282
ELEMENTARY OCCUPATION	-1.709	.111	236.864	1	.000	.181
SERVICE AND SALES WORKERS	-.751	.112	45.071	1	.000	.472
CLERICAL SUPPORT	.512	.150	11.624	1	.001	1.668
TECHNICIANS AND ASSO PROF	.037	.129	.080	1	.777	1.037
PROFESSIONALS	.526	.154	11.670	1	.001	1.692
SEX	-.397	.050	62.858	1	.000	.673
AGE	-.006	.002	9.741	1	.002	.994
STATUS	-.002	.046	.002	1	.966	.998
ILLINESS	.030	.059	.267	1	.606	1.031
DISABILITY	-.246	.106	5.399	1	.020	.782
ASSOCIATE DEGREE AND HIGHER	1.134	.076	223.776	1	.000	3.109
Constant	3.767	.151	626.117	1	.000	43.254

Binary Logistic Regression Results: Employed

	B	S.E.	Wald	df	Sig.	Exp(B)
SEX	-.022	.052	.174	1	.677	.978
AGE	.000	.002	.061	1	.805	1.000
STATUS	-.273	.048	31.988	1	.000	.761
ILLNESS	-.031	.060	.261	1	.610	.970
DISABILITY	-.374	.107	12.094	1	.001	.688
ASSOCIATE	1.218	.071	291.096	1	.000	3.382
AGRI, FORESTRY AND FISHERY	-3.329	.243	188.221	1	.000	.036
MINING AND QUARRYING	-1.528	.367	17.292	1	.000	.217
MANUFACTURING	-1.815	.231	61.979	1	.000	.163
WATER	-.116	.539	.046	1	.829	.890
CONSTRUCTION	-2.360	.193	149.098	1	.000	.094
WHOLESALE AND RETAIL	-1.646	.195	71.575	1	.000	.193
TRANSPORT & STORAGE	-1.612	.209	59.657	1	.000	.199
HOTELS & RESTAURANTS	-1.450	.198	53.801	1	.000	.235
COMMUNICATION	-1.029	.273	14.195	1	.000	.357
FINANCIAL SERVICES	.944	.300	9.900	1	.002	2.570
REAL ESTATE	-1.445	.265	29.752	1	.000	.236
ADMINISTRATIVE SUPPORT	-2.093	.201	108.386	1	.000	.123
PUBLIC ADMIN & DEFENSE	.503	.265	3.595	1	.058	1.654
EDUCATION	-.595	.271	4.802	1	.028	.552
HEALTH & SOCIAL SERVICES	-.491	.274	3.201	1	.074	.612
OTHER SERVICES	-2.296	.198	134.937	1	.000	.101
HOUSEHOLDS AS EMPLOYERS	-3.317	.194	293.511	1	.000	.036
Constant	4.062	.216	353.615	1	.000	58.094

In Summary

Preliminary results suggest:

- Significant under-enrolment of sub-populations that are not fully employed, particularly the unemployed
- Among the employed, there is significant variation in enrolment by industry and by occupation
 - > the highest compliance seems to be the “most formal” or “white collar” occupations

Policy implication:

- Industry-tailored, rather than generic enrolment campaigns and compliance monitoring
- Aggressive enrolment campaign among the unemployed