This file is the output file for the analyses in the paper Grosche, B., H. Katayama, M. Hoshi, K. N. Apsalikov, T. Belikhina, Y. Noso and N. Takeichi (2017). "Thyroid diseases in populations residing near the Semipalatinsk Nuclear Test Site, Kazakhstan: Results from an 11 years series of medical examinations." SM J Publ Health Epidemiol **3**(1).
For analyses, SPSS (Statistical Package for Social Sciences) was used.

*** Freqs vars for risk analyses ***

Frequencies

Notes

Output Created		12-MAR-2017 17:57:42
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Function2 thycan nodule agegrp sex affsett exp2 /STATISTICS=MINIMUM MAXIMUM MEAN MEDIAN /ORDER= ANALYSIS .
Resources	Elapsed Time	0:00:00,03
	Total Values Allowed	149796

Statistics

		Hypothyroidism	thyroid cancer	Thyroid nodule	age group	sex	affected settlement	Exposed
N	Valid	1067	1055	1055	1062	1060	1061	1033
	Missing	0	12	12	5	7	6	34
Mean		,06	,04	,29	5,47	1,78	,67	,44
Median		,00	,00	,00	6,00	2,00	1,00	,00
Minimum		0	0	0	1	1	0	0
Maximum		1	1	1	8	2	1	1

Frequency Table

Hypothyroidism

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	1004	94,1	94,1	94,1
	yes	63	5,9	5,9	100,0
	Total	1067	100,0	100,0	

thyroid cancer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	1015	95,1	96,2	96,2
	yes	40	3,7	3,8	100,0
	Total	1055	98,9	100,0	
Missing	System	12	1,1		
Total		1067	100,0		

Thyroid nodule

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no nodule	751	70,4	71,2	71,2
	nodule	304	28,5	28,8	100,0
	Total	1055	98,9	100,0	
Missing	System	12	1,1		
Total		1067	100,0		

age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-14	23	2,2	2,2	2,2
	15-24	8	,7	,8	2,9
	25-34	28	2,6	2,6	5,6
	35-44	85	8,0	8,0	13,6
	45-54	323	30,3	30,4	44,0
	55-64	442	41,4	41,6	85,6
	65-74	142	13,3	13,4	99,0
	75+	11	1,0	1,0	100,0
	Total	1062	99,5	100,0	
Missing	n.a.	5	,5		
Total		1067	100,0		

sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	233	21,8	22,0	22,0
	female	827	77,5	78,0	100,0
	Total	1060	99,3	100,0	
Missing	n.a.	7	,7		
Total		1067	100,0		

affected settlement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not affected	346	32,4	32,6	32,6
	affected	715	67,0	67,4	100,0
	Total	1061	99,4	100,0	
Missing	not clear	6	,6		
Total		1067	100,0		

Exposed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	577	54,1	55,9	55,9
	yes	456	42,7	44,1	100,0
	Total	1033	96,8	100,0	
Missing	not clear	34	3,2		
Total		1067	100,0		

Crosstabs

Notes

Output Created		12-MAR-2017 17:57:42
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.

	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS/TABLES=exp2 BY affsett .
Resources	Elapsed Time	0:00:00,02
	Dimensions Requested	2
	Cells Available	116508

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * affected settlement	1031	96,6%	36	3,4%	1067	100,0%

Exposed * affected settlement Crosstabulation

Count

		affected settlement		
		not affected	affected	Total
Exposed	no	332	244	576
	yes	6	449	455
Total		338	693	1031

*** Affected settlements ***

Frequencies

Notes

Output Created		12-MAR-2017 17:57:42
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	affected sett. (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	715
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.

	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Function2 thycan nodule agegrp sex affsett exp2 /STATISTICS=MINIMUM MAXIMUM MEAN MEDIAN /ORDER= ANALYSIS .
Resources	Elapsed Time	0:00:00,03
	Total Values Allowed	149796

Statistics

		Hypothyroidism	thyroid cancer	Thyroid nodule	age group	sex	affected settlement	Exposed
N	Valid	715	709	709	714	712	715	693
	Missing	0	6	6	1	3	0	22
Mean		,05	,03	,28	5,65	1,75	1,00	,65
Median		,00	,00	,00	6,00	2,00	1,00	1,00
Minimum		0	0	0	1	1	1	0
Maximum		1	1	1	8	2	1	1

Frequency Table

Hypothyroidism

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	677	94,7	94,7	94,7
	yes	38	5,3	5,3	100,0
	Total	715	100,0	100,0	

thyroid cancer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	685	95,8	96,6	96,6
	yes	24	3,4	3,4	100,0
	Total	709	99,2	100,0	
Missing	System	6	,8		
Total		715	100,0		

Thyroid nodule

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no nodule	508	71,0	71,7	71,7

	nodule	201	28,1	28,3	100,0
	Total	709	99,2	100,0	
Missing	System	6	,8		
Total		715	100,0		

age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-14	1	,1	,1	,1
	15-24	2	,3	,3	,4
	25-34	23	3,2	3,2	3,6
	35-44	47	6,6	6,6	10,2
	45-54	198	27,7	27,7	38,0
	55-64	326	45,6	45,7	83,6
	65-74	109	15,2	15,3	98,9
	75+	8	1,1	1,1	100,0
	Total	714	99,9	100,0	
Missing	n.a.	1	,1		
Total		715	100,0		

sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	177	24,8	24,9	24,9
	female	535	74,8	75,1	100,0
	Total	712	99,6	100,0	
Missing	n.a.	3	,4		
Total		715	100,0		

affected settlement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	affected	715	100,0	100,0	100,0

Exposed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	244	34,1	35,2	35,2
	yes	449	62,8	64,8	100,0
	Total	693	96,9	100,0	
Missing	not clear	22	3,1		
Total		715	100,0		

*** Hypothyroidism ***

Frequencies

Notes

Output Created		12-MAR-2017 17:57:42
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=Function2 agegrp sex affsett exp2 medicine /STATISTICS=MINIMUM MAXIMUM MEAN MEDIAN /ORDER= ANALYSIS .
Resources	Elapsed Time	0:00:00,03
	Total Values Allowed	149796

Statistics

		Hypothyroidism	age group	sex	affected settlement	Exposed	Medication
N	Valid	1067	1062	1060	1061	1033	271
	Missing	0	5	7	6	34	796
Mean		,06	5,47	1,78	,67	,44	1,67
Median		,00	6,00	2,00	1,00	,00	2,00
Minimum		0	1	1	0	0	1
Maximum		1	8	2	1	1	2

Frequency Table

Hypothyroidism

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	1004	94,1	94,1	94,1

	yes	63	5,9	5,9	100,0
	Total	1067	100,0	100,0	

age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-14	23	2,2	2,2	2,2
	15-24	8	,7	,8	2,9
	25-34	28	2,6	2,6	5,6
	35-44	85	8,0	8,0	13,6
	45-54	323	30,3	30,4	44,0
	55-64	442	41,4	41,6	85,6
	65-74	142	13,3	13,4	99,0
	75+	11	1,0	1,0	100,0
	Total	1062	99,5	100,0	
Missing	n.a.	5	,5		
Total		1067	100,0		

sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	233	21,8	22,0	22,0
	female	827	77,5	78,0	100,0
	Total	1060	99,3	100,0	
Missing	n.a.	7	,7		
Total		1067	100,0		

affected settlement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not affected	346	32,4	32,6	32,6
	affected	715	67,0	67,4	100,0
	Total	1061	99,4	100,0	
Missing	not clear	6	,6		
Total		1067	100,0		

Exposed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	577	54,1	55,9	55,9
	yes	456	42,7	44,1	100,0
	Total	1033	96,8	100,0	
Missing	not clear	34	3,2		

Total	1067	100,0		

Medication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	90	8,4	33,2	33,2
	no	181	17,0	66,8	100,0
	Total	271	25,4	100,0	
Missing	n.a.	796	74,6		
Total		1067	100,0		

*** Hypothyroidism ***
** simple crosstabulation **

Crosstabs

Notes

Output Created		12-MAR-2017 17:57:42
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=agegrp sex affsett exp2 medicine BY Function2 /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,04
	Dimensions Requested	2
	Cells Available	116508

Warnings

The Tests for Homogeneity of the Odds Ratio table and the Mantel-Haenszel Common Odds Ratio Estimate table are not computed for age group * Hypothyroidism, because either (1) the group variable does not have exactly two distinct non-missing values or/and (2) the response variable does not have exactly two distinct non-missing values.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
age group * Hypothyroidism	1062	99,5%	5	,5%	1067	100,0%
sex * Hypothyroidism	1060	99,3%	7	,7%	1067	100,0%
affected settlement * Hypothyroidism	1061	99,4%	6	,6%	1067	100,0%
Exposed * Hypothyroidism	1033	96,8%	34	3,2%	1067	100,0%
Medication * Hypothyroidism	271	25,4%	796	74,6%	1067	100,0%

age group * Hypothyroidism

Crosstab

			Hypothyroidism		
			no	yes	Total
age group	0-14	Count	22	1	23
		Expected Count	21,6	1,4	23,0
	15-24	Count	8	0	8
		Expected Count	7,5	,5	8,0
	25-34	Count	28	0	28
		Expected Count	26,3	1,7	28,0
	35-44	Count	74	11	85
		Expected Count	80,0	5,0	85,0
	45-54	Count	306	17	323
		Expected Count	303,8	19,2	323,0
	55-64	Count	420	22	442
		Expected Count	415,8	26,2	442,0
	65-74	Count	131	11	142
		Expected Count	133,6	8,4	142,0
	75+	Count	10	1	11
		Expected Count	10,3	,7	11,0
Total		Count	999	63	1062

	Expected Count	999,0	63,0	1062,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11,872(a)	7	,105
Likelihood Ratio	12,186	7	,095
Linear-by-Linear Association	,059	1	,809
N of Valid Cases	1062		

a 4 cells (25,0%) have expected count less than 5. The minimum expected count is ,47.

sex * Hypothyroidism

Crosstab

			Hypothyroidism		
			no	yes	Total
sex	male	Count	227	6	233
		Expected Count	219,2	13,8	233,0
	female	Count	770	57	827
		Expected Count	777,8	49,2	827,0
Total		Count	997	63	1060
		Expected Count	997,0	63,0	1060,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6,061(b)	1	,014		
Continuity Correction(a)	5,313	1	,021		
Likelihood Ratio	7,208	1	,007		
Fisher's Exact Test				,012	,007
Linear-by-Linear Association	6,055	1	,014		
N of Valid Cases	1060				

a Computed only for a 2x2 table
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 13,85.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,000	0	.

Tarone's	,000	0	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	6,061	1	,014
Mantel-Haenszel	5,308	1	,021

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			2,801
ln(Estimate)			1,030
Std. Error of ln(Estimate)			,436
Asymp. Sig. (2-sided)			,018
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	1,192
		Upper Bound	6,580
	ln(Common Odds Ratio)	Lower Bound	,176
		Upper Bound	1,884

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

affected settlement * Hypothyroidism

Crosstab

			Hypothyroidism		
			no	yes	Total
affected settlement	not affected	Count	321	25	346
		Expected Count	325,5	20,5	346,0
	affected	Count	677	38	715
		Expected Count	672,5	42,5	715,0
Total		Count	998	63	1061
		Expected Count	998,0	63,0	1061,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1,524(b)	1	,217		
Continuity Correction(a)	1,201	1	,273		
Likelihood Ratio	1,479	1	,224		
Fisher's Exact Test				,216	,137
Linear-by-Linear Association	1,523	1	,217		

N of Valid Cases	1061				

a Computed only for a 2x2 table
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 20,54.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,000	0	.
Tarone's	,000	0	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	1,524	1	,217
Mantel-Haenszel	1,200	1	,273

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,721
ln(Estimate)			-,328
Std. Error of ln(Estimate)			,266
Asymp. Sig. (2-sided)			,219
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,428
		Upper Bound	1,215
	ln(Common Odds Ratio)	Lower Bound	-,849
		Upper Bound	,194

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

Exposed * Hypothyroidism

Crosstab

			Hypothyroidism		
			no	yes	Total
Exposed	no	Count	526	51	577
		Expected Count	541,8	35,2	577,0
	yes	Count	444	12	456
		Expected Count	428,2	27,8	456,0
Total		Count	970	63	1033
		Expected Count	970,0	63,0	1033,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	17,137(b)	1	,000		
Continuity Correction(a)	16,070	1	,000		
Likelihood Ratio	18,720	1	,000		
Fisher's Exact Test				,000	,000
Linear-by-Linear Association	17,120	1	,000		
N of Valid Cases	1033				

a Computed only for a 2x2 table
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 27,81.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,000	0	.
Tarone's	,000	0	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	17,137	1	,000
Mantel-Haenszel	16,054	1	,000

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,279
ln(Estimate)			-1,277
Std. Error of ln(Estimate)			,327
Asymp. Sig. (2-sided)			,000
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,147
		Upper Bound	,529
	ln(Common Odds Ratio)	Lower Bound	-1,919
		Upper Bound	-,636

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

Medication * Hypothyroidism

Crosstab

			Hypothyroidism		
			no	yes	Total
Medication	yes	Count	83	7	90
		Expected Count	87,7	2,3	90,0
	no	Count	181	0	181
		Expected Count	176,3	4,7	181,0
Total		Count	264	7	271
		Expected Count	264,0	7,0	271,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	14,451(b)	1	,000		
Continuity Correction(a)	11,525	1	,001		
Likelihood Ratio	15,809	1	,000		
Fisher's Exact Test				,000	,000
Linear-by-Linear Association	14,398	1	,000		
N of Valid Cases	271				

a Computed only for a 2x2 table
b 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,32.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	.	.	.
Tarone's	.	.	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	14,451	1	,000
Mantel-Haenszel	11,483	1	,001

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate	,000
ln(Estimate)	.
Std. Error of ln(Estimate)	.
Asymp. Sig. (2-sided)	.

Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	.
		Upper Bound	.
	ln(Common Odds Ratio)	Lower Bound	.
		Upper Bound	.

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Hypothyroidism ***
** stratified by age or sex **

Crosstabs

Notes

Output Created		12-MAR-2017 17:57:42
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY Function2 BY agegrp sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:15,65
	Dimensions Requested	3
	Cells Available	95325

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent

Exposed * Hypothyroidism * age group	1032	96,7%	35	3,3%	1067	100,0%
Exposed * Hypothyroidism * sex	1030	96,5%	37	3,5%	1067	100,0%

Exposed * Hypothyroidism * age group

Crosstab

age group				Hypothyroidism		Total
				no	yes	
0-14	Exposed	no	Count	21	1	22
			Expected Count	21,0	1,0	22,0
	Total		Count	21	1	22
			Expected Count	21,0	1,0	22,0
15-24	Exposed	no	Count	8		8
			Expected Count	8,0		8,0
	Total		Count	8		8
			Expected Count	8,0		8,0
25-34	Exposed	no	Count	27		27
			Expected Count	27,0		27,0
	Total		Count	27		27
			Expected Count	27,0		27,0
35-44	Exposed	no	Count	71	11	82
			Expected Count	71,1	10,9	82,0
		yes	Count	1	0	1
			Expected Count	,9	,1	1,0
	Total		Count	72	11	83
			Expected Count	72,0	11,0	83,0
45-54	Exposed	no	Count	204	17	221
			Expected Count	209,0	12,0	221,0
		yes	Count	93	0	93
			Expected Count	88,0	5,0	93,0
	Total		Count	297	17	314
			Expected Count	297,0	17,0	314,0
55-64	Exposed	no	Count	150	18	168
			Expected Count	159,5	8,5	168,0
		yes	Count	261	4	265
			Expected Count	251,5	13,5	265,0
	Total		Count	411	22	433

			Expected Count	411,0	22,0	433,0
65-74	Exposed	no	Count	42	3	45
			Expected Count	41,3	3,7	45,0
		yes	Count	81	8	89
			Expected Count	81,7	7,3	89,0
	Total		Count	123	11	134
			Expected Count	123,0	11,0	134,0
75+	Exposed	no	Count	2	1	3
			Expected Count	2,7	,3	3,0
		yes	Count	8	0	8
			Expected Count	7,3	,7	8,0
	Total		Count	10	1	11
			Expected Count	10,0	1,0	11,0

Chi-Square Tests

age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
0-14	Pearson Chi-Square	.(b)				
	N of Valid Cases	22				
15-24	Pearson Chi-Square	.(c)				
	N of Valid Cases	8				
25-34	Pearson Chi-Square	.(c)				
	N of Valid Cases	27				
35-44	Pearson Chi-Square	,155(d)	1	,694		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,286	1	,593		
	Fisher's Exact Test				1,000	,867
	Linear-by-Linear Association	,153	1	,696		
	N of Valid Cases	83				
45-54	Pearson Chi-Square	7,563(e)	1	,006		
	Continuity Correction(a)	6,136	1	,013		
	Likelihood Ratio	12,347	1	,000		
	Fisher's Exact Test				,004	,002
	Linear-by-Linear Association	7,539	1	,006		
	N of Valid Cases	314				
55-64	Pearson Chi-Square	18,064(f)	1	,000		
	Continuity Correction(a)	16,206	1	,000		
	Likelihood Ratio	18,075	1	,000		

	Fisher's Exact Test				,000	,000
	Linear-by-Linear Association	18,022	1	,000		
	N of Valid Cases	433				
65-74	Pearson Chi-Square	,214(g)	1	,644		
	Continuity Correction(a)	,017	1	,897		
	Likelihood Ratio	,221	1	,638		
	Fisher's Exact Test				,750	,461
	Linear-by-Linear Association	,212	1	,645		
	N of Valid Cases	134				
75+	Pearson Chi-Square	2,933(h)	1	,087		
	Continuity Correction(a)	,286	1	,592		
	Likelihood Ratio	2,883	1	,090		
	Fisher's Exact Test				,273	,273
	Linear-by-Linear Association	2,667	1	,102		
	N of Valid Cases	11				

a Computed only for a 2x2 table
b No statistics are computed because Exposed is a constant.
c No statistics are computed because Exposed and Hypothyroidism are constants.
d 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,13.
e 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,04.
f 0 cells (,0%) have expected count less than 5. The minimum expected count is 8,54.
g 1 cells (25,0%) have expected count less than 5. The minimum expected count is 3,69.
h 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,27.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	12,175	4	,016
Tarone's	12,101	4	,017

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	19,810	1	,000
Mantel-Haenszel	18,383	1	,000

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate	,210

ln(Estimate)			-1,562
Std. Error of ln(Estimate)			,368
Asymp. Sig. (2-sided)			,000
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,102
		Upper Bound	,431
	ln(Common Odds Ratio)	Lower Bound	-2,282
		Upper Bound	-,841

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

Exposed * Hypothyroidism * sex

Crosstab

sex				Hypothyroidism		
				no	yes	Total
male	Exposed	no	Count	92	3	95
			Expected Count	92,5	2,5	95,0
		yes	Count	128	3	131
			Expected Count	127,5	3,5	131,0
	Total		Count	220	6	226
			Expected Count	220,0	6,0	226,0
female	Exposed	no	Count	433	48	481
			Expected Count	446,9	34,1	481,0
		yes	Count	314	9	323
			Expected Count	300,1	22,9	323,0
	Total		Count	747	57	804
			Expected Count	747,0	57,0	804,0

Chi-Square Tests

sex		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
male	Pearson Chi-Square	,160(b)	1	,689		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,158	1	,691		
	Fisher's Exact Test				,698	,498
	Linear-by-Linear Association	,160	1	,689		
	N of Valid Cases	226				
female	Pearson Chi-Square	15,178(c)	1	,000		
	Continuity	14,105	1	,000		

	Correction(a)				
	Likelihood Ratio	17,082	1	,000	
	Fisher's Exact Test				,000 ,000
	Linear-by-Linear Association	15,159	1	,000	
	N of Valid Cases	804			

a Computed only for a 2x2 table
b 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,52.
c 0 cells (,0%) have expected count less than 5. The minimum expected count is 22,90.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	1,351	1	,245
Tarone's	1,348	1	,246

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	14,606	1	,000
Mantel-Haenszel	13,587	1	,000

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,297
ln(Estimate)			-1,215
Std. Error of ln(Estimate)			,332
Asymp. Sig. (2-sided)			,000
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,155
		Upper Bound	,569
	ln(Common Odds Ratio)	Lower Bound	-1,866
		Upper Bound	-,563

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Hypothyroidism ***
** stratified by age and sex **

Crosstabs

Notes

Output Created	12-MAR-2017 17:57:57

Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY Function2 BY agegrp BY sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:01,41
	Dimensions Requested	4
	Cells Available	80659

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Hypothyroidism * age group * sex	1030	96,5%	37	3,5%	1067	100,0%

Exposed * Hypothyroidism * age group * sex Crosstabulation

sex	age group				Hypothyroidism		Total
					no	yes	
male	0-14	Exposed	no	Count	9		9
				Expected Count	9,0		9,0
		Total		Count	9		9
				Expected Count	9,0		9,0
	15-24	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3

				Expected Count	3,0		3,0
	25-34	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	35-44	Exposed	no	Count	7	1	8
				Expected Count	7,0	1,0	8,0
		Total		Count	7	1	8
				Expected Count	7,0	1,0	8,0
	45-54	Exposed	no	Count	35		35
				Expected Count	35,0		35,0
			yes	Count	33		33
				Expected Count	33,0		33,0
		Total		Count	68		68
				Expected Count	68,0		68,0
	55-64	Exposed	no	Count	26	1	27
				Expected Count	26,5	,5	27,0
			yes	Count	73	1	74
				Expected Count	72,5	1,5	74,0
		Total		Count	99	2	101
				Expected Count	99,0	2,0	101,0
	65-74	Exposed	no	Count	7	1	8
				Expected Count	7,2	,8	8,0
			yes	Count	21	2	23
				Expected Count	20,8	2,2	23,0
		Total		Count	28	3	31
				Expected Count	28,0	3,0	31,0
	75+	Exposed	no	Count	2		2
				Expected Count	2,0		2,0
			yes	Count	1		1
				Expected Count	1,0		1,0
		Total		Count	3		3
				Expected Count	3,0		3,0
female	0-14	Exposed	no	Count	12	1	13
				Expected Count	12,0	1,0	13,0
		Total		Count	12	1	13
				Expected Count	12,0	1,0	13,0
	15-24	Exposed	no	Count	5		5
				Expected Count	5,0		5,0

	Total		Count	5		5
			Expected Count	5,0		5,0
25-34	Exposed	no	Count	24		24
			Expected Count	24,0		24,0
	Total		Count	24		24
			Expected Count	24,0		24,0
35-44	Exposed	no	Count	64	10	74
			Expected Count	64,1	9,9	74,0
		yes	Count	1	0	1
			Expected Count	,9	,1	1,0
	Total		Count	65	10	75
			Expected Count	65,0	10,0	75,0
45-54	Exposed	no	Count	169	17	186
			Expected Count	173,1	12,9	186,0
		yes	Count	59	0	59
			Expected Count	54,9	4,1	59,0
	Total		Count	228	17	245
			Expected Count	228,0	17,0	245,0
55-64	Exposed	no	Count	124	17	141
			Expected Count	132,5	8,5	141,0
		yes	Count	187	3	190
			Expected Count	178,5	11,5	190,0
	Total		Count	311	20	331
			Expected Count	311,0	20,0	331,0
65-74	Exposed	no	Count	35	2	37
			Expected Count	34,1	2,9	37,0
		yes	Count	60	6	66
			Expected Count	60,9	5,1	66,0
	Total		Count	95	8	103
			Expected Count	95,0	8,0	103,0
75+	Exposed	no	Count	0	1	1
			Expected Count	,9	,1	1,0
		yes	Count	7	0	7
			Expected Count	6,1	,9	7,0
	Total		Count	7	1	8
			Expected Count	7,0	1,0	8,0

Chi-Square Tests

sex	age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
male	0-14	Pearson Chi-Square	.(b)				
		N of Valid Cases	9				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	35-44	Pearson Chi-Square	.(c)				
		N of Valid Cases	8				
	45-54	Pearson Chi-Square	.(d)				
		N of Valid Cases	68				
	55-64	Pearson Chi-Square	,564(e)	1	,453		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,499	1	,480		
		Fisher's Exact Test				,465	,465
		Linear-by-Linear Association	,558	1	,455		
		N of Valid Cases	101				
	65-74	Pearson Chi-Square	,098(f)	1	,754		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,094	1	,760		
		Fisher's Exact Test				1,000	,606
		Linear-by-Linear Association	,095	1	,758		
		N of Valid Cases	31				
	75+	Pearson Chi-Square	.(d)				
		N of Valid Cases	3				
female	0-14	Pearson Chi-Square	.(c)				
		N of Valid Cases	13				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid Cases	5				
	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	24				
	35-44	Pearson	,156(g)	1	,693		

		Chi-Square						
		Continuity Correction(a)	,000	1	1,000			
		Likelihood Ratio	,288	1	,591			
		Fisher's Exact Test				1,000	,867	
		Linear-by-Linear Association	,154	1	,695			
		N of Valid Cases	75					
	45-54	Pearson Chi-Square	5,795(h)	1	,016			
		Continuity Correction(a)	4,466	1	,035			
		Likelihood Ratio	9,763	1	,002			
		Fisher's Exact Test				,015	,008	
		Linear-by-Linear Association	5,771	1	,016			
		N of Valid Cases	245					
	55-64	Pearson Chi-Square	15,651(i)	1	,000			
		Continuity Correction(a)	13,860	1	,000			
		Likelihood Ratio	16,388	1	,000			
		Fisher's Exact Test				,000	,000	
		Linear-by-Linear Association	15,604	1	,000			
		N of Valid Cases	331					
	65-74	Pearson Chi-Square	,450(j)	1	,503			
		Continuity Correction(a)	,082	1	,774			
		Likelihood Ratio	,474	1	,491			
		Fisher's Exact Test				,708	,400	
		Linear-by-Linear Association	,445	1	,505			
		N of Valid Cases	103					
	75+	Pearson Chi-Square	8,000(k)	1	,005			
		Continuity Correction(a)	1,469	1	,225			
		Likelihood Ratio	6,028	1	,014			
		Fisher's Exact Test				,125	,125	
		Linear-by-Linear Association	7,000	1	,008			
		N of Valid Cases	8					

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Hypothyroidism are constants.
c No statistics are computed because Exposed is a constant.
d No statistics are computed because Hypothyroidism is a constant.

e 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,53.
f 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,77.
g 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,13.
h 1 cells (25,0%) have expected count less than 5. The minimum expected count is 4,09.
i 0 cells (,0%) have expected count less than 5. The minimum expected count is 8,52.
j 1 cells (25,0%) have expected count less than 5. The minimum expected count is 2,87.
k 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,13.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	13,905	6	,031
Tarone's	13,863	6	,031

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	17,436	1	,000
Mantel-Haenszel	16,036	1	,000

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,224
ln(Estimate)			-1,495
Std. Error of ln(Estimate)			,372
Asymp. Sig. (2-sided)			,000
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,108
		Upper Bound	,465
	ln(Common Odds Ratio)	Lower Bound	-2,225
		Upper Bound	-,766

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Hypothyroidism ***
** stratified by age and sex and medication **

Crosstabs

Notes

Output Created	12-MAR-2017 17:57:59
Comments	

Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY Function2 BY agegrp BY sex BY medicine /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,02
	Dimensions Requested	5
	Cells Available	69905

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Hypothyroidism * age group * sex * Medication	262	24,6%	805	75,4%	1067	100,0%

Exposed * Hypothyroidism * age group * sex * Medication Crosstabulation

Medication	sex	age group				Hypothyroidism		Total
						no	yes	
yes	male	15-24	Exposed	no	Count	1		1
					Expected Count	1,0		1,0
			Total		Count	1		1
					Expected Count	1,0		1,0
		45-54	Exposed	no	Count	2		2
					Expected Count	2,0		2,0
				yes	Count	2		2
					Expected	2,0		2,0

					Count			
			Total		Count	4		4
					Expected Count	4,0		4,0
		55-64	Exposed	no	Count	1	1	2
					Expected Count	1,5	,5	2,0
				yes	Count	2	0	2
					Expected Count	1,5	,5	2,0
			Total		Count	3	1	4
					Expected Count	3,0	1,0	4,0
	female	45-54	Exposed	no	Count	11	4	15
					Expected Count	12,6	2,4	15,0
				yes	Count	10	0	10
					Expected Count	8,4	1,6	10,0
			Total		Count	21	4	25
					Expected Count	21,0	4,0	25,0
		55-64	Exposed	no	Count	12	1	13
					Expected Count	12,6	,4	13,0
				yes	Count	16	0	16
					Expected Count	15,4	,6	16,0
			Total		Count	28	1	29
					Expected Count	28,0	1,0	29,0
		25-34	Exposed	no	Count	5		5
					Expected Count	5,0		5,0
			Total		Count	5		5
					Expected Count	5,0		5,0
		35-44	Exposed	no	Count	8		8
					Expected Count	8,0		8,0
			Total		Count	8		8
					Expected Count	8,0		8,0
		65-74	Exposed	no	Count	4	0	4
					Expected Count	3,3	,7	4,0
				yes	Count	1	1	2
					Expected Count	1,7	,3	2,0
			Total		Count	5	1	6
					Expected Count	5,0	1,0	6,0
		75+	Exposed	yes	Count	1		1
					Expected Count	1,0		1,0
			Total		Count	1		1
					Expected Count	1,0		1,0
no	male	15-24	Exposed	no	Count	1		1
					Expected Count	1,0		1,0
			Total		Count	1		1

				Expected Count	1,0		1,0
	45-54	Exposed	no	Count	9		9
				Expected Count	9,0		9,0
			yes	Count	17		17
				Expected Count	17,0		17,0
		Total		Count	26		26
				Expected Count	26,0		26,0
	55-64	Exposed	no	Count	9		9
				Expected Count	9,0		9,0
			yes	Count	27		27
				Expected Count	27,0		27,0
		Total		Count	36		36
				Expected Count	36,0		36,0
	25-34	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	35-44	Exposed	no	Count	1		1
				Expected Count	1,0		1,0
		Total		Count	1		1
				Expected Count	1,0		1,0
	65-74	Exposed	no	Count	4		4
				Expected Count	4,0		4,0
			yes	Count	2		2
				Expected Count	2,0		2,0
		Total		Count	6		6
				Expected Count	6,0		6,0
	0-14	Exposed	no	Count	6		6
				Expected Count	6,0		6,0
		Total		Count	6		6
				Expected Count	6,0		6,0
female	45-54	Exposed	no	Count	24		24
				Expected Count	24,0		24,0
			yes	Count	14		14
				Expected Count	14,0		14,0
		Total		Count	38		38
				Expected Count	38,0		38,0
	55-64	Exposed	no	Count	17		17
				Expected Count	17,0		17,0

			yes	Count	18			18
				Expected Count	18,0			18,0
		Total		Count	35			35
				Expected Count	35,0			35,0
	25-34	Exposed	no	Count	9			9
				Expected Count	9,0			9,0
		Total		Count	9			9
				Expected Count	9,0			9,0
	35-44	Exposed	no	Count	6			6
				Expected Count	6,0			6,0
		Total		Count	6			6
				Expected Count	6,0			6,0
	65-74	Exposed	no	Count	1			1
				Expected Count	1,0			1,0
			yes	Count	1			1
				Expected Count	1,0			1,0
		Total		Count	2			2
				Expected Count	2,0			2,0
	0-14	Exposed	no	Count	10			10
				Expected Count	10,0			10,0
		Total		Count	10			10
				Expected Count	10,0			10,0

Chi-Square Tests

Medication	sex	age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
yes	male	15-24	Pearson Chi-Square	.(b)				
			N of Valid Cases	1				
		45-54	Pearson Chi-Square	.(c)				
			N of Valid Cases	4				
		55-64	Pearson Chi-Square	1,333(d)	1	,248		
			Continuity Correction(a)	,000	1	1,000		
			Likelihood Ratio	1,726	1	,189		
			Fisher's Exact Test				1,000	,500
			Linear-by-Linear Association	1,000	1	,317		
			N of Valid Cases	4				
	female	45-54	Pearson	3,175(e)	1	,075		

			Chi-Square					
			Continuity Correction(a)	1,500	1	,221		
			Likelihood Ratio	4,586	1	,032		
			Fisher's Exact Test				,125	,108
			Linear-by-Linear Association	3,048	1	,081		
			N of Valid Cases	25				
		55-64	Pearson Chi-Square	1,275(f)	1	,259		
			Continuity Correction(a)	,011	1	,916		
			Likelihood Ratio	1,649	1	,199		
			Fisher's Exact Test				,448	,448
			Linear-by-Linear Association	1,231	1	,267		
			N of Valid Cases	29				
		25-34	Pearson Chi-Square	.(b)				
			N of Valid Cases	5				
		35-44	Pearson Chi-Square	.(b)				
			N of Valid Cases	8				
		65-74	Pearson Chi-Square	2,400(g)	1	,121		
			Continuity Correction(a)	,150	1	,699		
			Likelihood Ratio	2,634	1	,105		
			Fisher's Exact Test				,333	,333
			Linear-by-Linear Association	2,000	1	,157		
			N of Valid Cases	6				
		75+	Pearson Chi-Square	.(b)				
			N of Valid Cases	1				
no	male	15-24	Pearson Chi-Square	.(b)				
			N of Valid Cases	1				
		45-54	Pearson Chi-Square	.(c)				
			N of Valid Cases	26				
		55-64	Pearson Chi-Square	.(c)				
			N of Valid Cases	36				
		25-34	Pearson	.(b)				

			Chi-Square					
			N of Valid Cases	3				
		35-44	Pearson Chi-Square	.(b)				
			N of Valid Cases	1				
		65-74	Pearson Chi-Square	.(c)				
			N of Valid Cases	6				
		0-14	Pearson Chi-Square	.(b)				
			N of Valid Cases	6				
	female	45-54	Pearson Chi-Square	.(c)				
			N of Valid Cases	38				
		55-64	Pearson Chi-Square	.(c)				
			N of Valid Cases	35				
		25-34	Pearson Chi-Square	.(b)				
			N of Valid Cases	9				
		35-44	Pearson Chi-Square	.(b)				
			N of Valid Cases	6				
		65-74	Pearson Chi-Square	.(c)				
			N of Valid Cases	2				
		0-14	Pearson Chi-Square	.(b)				
			N of Valid Cases	10				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Hypothyroidism are constants.
c No statistics are computed because Hypothyroidism is a constant.
d 4 cells (100,0%) have expected count less than 5. The minimum expected count is ,50.
e 2 cells (50,0%) have expected count less than 5. The minimum expected count is 1,60.
f 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,45.
g 4 cells (100,0%) have expected count less than 5. The minimum expected count is ,33.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	8,969	3	,030
Tarone's	8,871	3	,031

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	2,779	1	,096

Mantel-Haenszel	1,414	1	,234

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,251
ln(Estimate)			-1,381
Std. Error of ln(Estimate)			1,034
Asymp. Sig. (2-sided)			,182
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,033
		Upper Bound	1,907
	ln(Common Odds Ratio)	Lower Bound	-3,407
		Upper Bound	,646

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Hypothyroidism ***
** affected settlements only **

*** Hypothyroidism ***
* stratified by age and sex *

Crosstabs

Notes

Output Created		12-MAR-2017 17:57:59
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	affected sett. (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	715
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.

Syntax		CROSSTABS /TABLES=exp2 BY Function2 BY agegrp BY sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,03
	Dimensions Requested	4
	Cells Available	80659

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Hypothyroidism * age group * sex	691	96,6%	24	3,4%	715	100,0%

Exposed * Hypothyroidism * age group * sex Crosstabulation

sex	age group				Hypothyroidism		
					no	yes	Total
male	25-34	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	35-44	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	45-54	Exposed	no	Count	17		17
				Expected Count	17,0		17,0
			yes	Count	33		33
				Expected Count	33,0		33,0
		Total		Count	50		50
				Expected Count	50,0		50,0
	55-64	Exposed	no	Count	13	0	13
				Expected Count	12,9	,1	13,0
			yes	Count	73	1	74
				Expected Count	73,1	,9	74,0
		Total		Count	86	1	87
				Expected	86,0	1,0	87,0

				Count			
	65-74	Exposed	no	Count	4	1	5
				Expected Count	4,5	,5	5,0
			yes	Count	21	2	23
				Expected Count	20,5	2,5	23,0
		Total		Count	25	3	28
				Expected Count	25,0	3,0	28,0
	75+	Exposed	yes	Count	1		1
				Expected Count	1,0		1,0
		Total		Count	1		1
				Expected Count	1,0		1,0
female	25-34	Exposed	no	Count	19		19
				Expected Count	19,0		19,0
		Total		Count	19		19
				Expected Count	19,0		19,0
	35-44	Exposed	no	Count	37	6	43
				Expected Count	37,1	5,9	43,0
			yes	Count	1	0	1
				Expected Count	,9	,1	1,0
		Total		Count	38	6	44
				Expected Count	38,0	6,0	44,0
	45-54	Exposed	no	Count	72	11	83
				Expected Count	76,5	6,5	83,0
			yes	Count	57	0	57
				Expected Count	52,5	4,5	57,0
		Total		Count	129	11	140
				Expected Count	129,0	11,0	140,0
	55-64	Exposed	no	Count	38	7	45
				Expected Count	43,1	1,9	45,0
			yes	Count	183	3	186
				Expected Count	177,9	8,1	186,0
		Total		Count	221	10	231
				Expected Count	221,0	10,0	231,0
	65-74	Exposed	no	Count	10	1	11
				Expected Count	10,0	1,0	11,0
			yes	Count	59	6	65
				Expected Count	59,0	6,0	65,0
		Total		Count	69	7	76
				Expected Count	69,0	7,0	76,0
	75+	Exposed	yes	Count	7		7

				Expected Count	7,0		7,0
		Total		Count	7		7
				Expected Count	7,0		7,0
	15-24	Exposed	no	Count	2		2
				Expected Count	2,0		2,0
		Total		Count	2		2
				Expected Count	2,0		2,0

Chi-Square Tests

sex	age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
male	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	35-44	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	45-54	Pearson Chi-Square	.(c)				
		N of Valid Cases	50				
	55-64	Pearson Chi-Square	,178(d)	1	,673		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,326	1	,568		
		Fisher's Exact Test				1,000	,851
		Linear-by-Linear Association	,176	1	,675		
		N of Valid Cases	87				
	65-74	Pearson Chi-Square	,549(e)	1	,459		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,474	1	,491		
		Fisher's Exact Test				,459	,459
		Linear-by-Linear Association	,529	1	,467		
		N of Valid Cases	28				
	75+	Pearson Chi-Square	.(b)				
		N of Valid Cases	1				
female	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	19				

	35-44	Pearson Chi-Square	,162(f)	1	,688		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,297	1	,586		
		Fisher's Exact Test				1,000	,864
		Linear-by-Linear Association	,158	1	,691		
		N of Valid Cases	44				
	45-54	Pearson Chi-Square	8,198(g)	1	,004		
		Continuity Correction(a)	6,470	1	,011		
		Likelihood Ratio	12,141	1	,000		
		Fisher's Exact Test				,003	,002
		Linear-by-Linear Association	8,140	1	,004		
		N of Valid Cases	140				
	55-64	Pearson Chi-Square	17,007(h)	1	,000		
		Continuity Correction(a)	13,807	1	,000		
		Likelihood Ratio	12,743	1	,000		
		Fisher's Exact Test				,001	,001
		Linear-by-Linear Association	16,934	1	,000		
		N of Valid Cases	231				
	65-74	Pearson Chi-Square	,000(i)	1	,988		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,000	1	,988		
		Fisher's Exact Test				1,000	,734
		Linear-by-Linear Association	,000	1	,988		
		N of Valid Cases	76				
	75+	Pearson Chi-Square	.(b)				
		N of Valid Cases	7				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid Cases	2				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Hypothyroidism are constants.
c No statistics are computed because Hypothyroidism is a constant.
d 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,15.
e 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,54.
f 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,14.
g 1 cells (25,0%) have expected count less than 5. The minimum expected count is 4,48.

h 1 cells (25,0%) have expected count less than 5. The minimum expected count is 1,95.
i 1 cells (25,0%) have expected count less than 5. The minimum expected count is 1,01.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	7,123	5	,212
Tarone's	6,886	5	,229

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	18,514	1	,000
Mantel-Haenszel	16,539	1	,000

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,147
ln(Estimate)			-1,917
Std. Error of ln(Estimate)			,462
Asymp. Sig. (2-sided)			,000
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,059
		Upper Bound	,364
	ln(Common Odds Ratio)	Lower Bound	-2,823
		Upper Bound	-1,011

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Hypothyroidism ***
* stratified by age and sex and medication *

Crosstabs

Notes

Output Created		12-MAR-2017 17:57:59
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	affected sett. (FILTER)
	Weight	<none>
	Split File	<none>

	N of Rows in Working Data File	715
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY Function2 BY agegrp BY sex BY medicine /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,04
	Dimensions Requested	5
	Cells Available	69905

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Hypothyroidism * age group * sex * Medication	168	23,5%	547	76,5%	715	100,0%

Exposed * Hypothyroidism * age group * sex * Medication Crosstabulation

Medication	sex	age group				Hypothyroidism no	Hypothyroidism yes	Total
yes	male	45-54	Exposed	yes	Count	2		2
					Expected Count	2,0		2,0
			Total		Count	2		2
					Expected Count	2,0		2,0
		55-64	Exposed	no	Count	1		1
					Expected Count	1,0		1,0
				yes	Count	2		2
					Expected Count	2,0		2,0
			Total		Count	3		3
					Expected Count	3,0		3,0
	female	45-54	Exposed	no	Count	5	2	7
					Expected Count	6,2	,8	7,0
				yes	Count	10	0	10
					Expected	8,8	1,2	10,0

					Count			
		Total			Count	15	2	17
					Expected Count	15,0	2,0	17,0
	55-64	Exposed	no		Count	2	1	3
					Expected Count	2,8	,2	3,0
			yes		Count	16	0	16
					Expected Count	15,2	,8	16,0
		Total			Count	18	1	19
					Expected Count	18,0	1,0	19,0
	25-34	Exposed	no		Count	3		3
					Expected Count	3,0		3,0
		Total			Count	3		3
					Expected Count	3,0		3,0
	35-44	Exposed	no		Count	4		4
					Expected Count	4,0		4,0
		Total			Count	4		4
					Expected Count	4,0		4,0
	65-74	Exposed	yes		Count	1	1	2
					Expected Count	1,0	1,0	2,0
		Total			Count	1	1	2
					Expected Count	1,0	1,0	2,0
	75+	Exposed	yes		Count	1		1
					Expected Count	1,0		1,0
		Total			Count	1		1
					Expected Count	1,0		1,0
no	male	45-54	Exposed	no	Count	3		3
					Expected Count	3,0		3,0
				yes	Count	17		17
					Expected Count	17,0		17,0
			Total		Count	20		20
					Expected Count	20,0		20,0
		55-64	Exposed	no	Count	4		4
					Expected Count	4,0		4,0
				yes	Count	27		27
					Expected Count	27,0		27,0
			Total		Count	31		31
					Expected Count	31,0		31,0
		25-34	Exposed	no	Count	3		3
					Expected Count	3,0		3,0
			Total		Count	3		3
					Expected Count	3,0		3,0

		35-44	Exposed	no	Count	1		1
					Expected Count	1,0		1,0
			Total		Count	1		1
					Expected Count	1,0		1,0
		65-74	Exposed	no	Count	3		3
					Expected Count	3,0		3,0
				yes	Count	2		2
					Expected Count	2,0		2,0
			Total		Count	5		5
					Expected Count	5,0		5,0
	female	45-54	Exposed	no	Count	5		5
					Expected Count	5,0		5,0
				yes	Count	14		14
					Expected Count	14,0		14,0
			Total		Count	19		19
					Expected Count	19,0		19,0
		55-64	Exposed	no	Count	6		6
					Expected Count	6,0		6,0
				yes	Count	18		18
					Expected Count	18,0		18,0
			Total		Count	24		24
					Expected Count	24,0		24,0
		25-34	Exposed	no	Count	9		9
					Expected Count	9,0		9,0
			Total		Count	9		9
					Expected Count	9,0		9,0
		35-44	Exposed	no	Count	4		4
					Expected Count	4,0		4,0
			Total		Count	4		4
					Expected Count	4,0		4,0
		65-74	Exposed	yes	Count	1		1
					Expected Count	1,0		1,0
			Total		Count	1		1
					Expected Count	1,0		1,0

Chi-Square Tests

Medication	sex	age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
yes	male	45-54	Pearson Chi-Square	.(b)				

			N of Valid Cases	2					
		55-64	Pearson Chi-Square	.(c)					
			N of Valid Cases	3					
	female	45-54	Pearson Chi-Square	3,238(d)	1	,072			
			Continuity Correction(a)	1,071	1	,301			
			Likelihood Ratio	3,939	1	,047			
			Fisher's Exact Test				,154	,154	
			Linear-by-Linear Association	3,048	1	,081			
			N of Valid Cases	17					
		55-64	Pearson Chi-Square	5,630(e)	1	,018			
			Continuity Correction(a)	,929	1	,335			
			Likelihood Ratio	4,016	1	,045			
			Fisher's Exact Test				,158	,158	
			Linear-by-Linear Association	5,333	1	,021			
			N of Valid Cases	19					
		25-34	Pearson Chi-Square	.(b)					
			N of Valid Cases	3					
		35-44	Pearson Chi-Square	.(b)					
			N of Valid Cases	4					
		65-74	Pearson Chi-Square	.(f)					
			N of Valid Cases	2					
		75+	Pearson Chi-Square	.(b)					
			N of Valid Cases	1					
no	male	45-54	Pearson Chi-Square	.(c)					
			N of Valid Cases	20					
		55-64	Pearson Chi-Square	.(c)					
			N of Valid Cases	31					
		25-34	Pearson Chi-Square	.(b)					
			N of Valid Cases	3					
		35-44	Pearson Chi-Square	.(b)					
			N of Valid Cases	1					

		65-74	Pearson Chi-Square	.(c)				
			N of Valid Cases	5				
	female	45-54	Pearson Chi-Square	.(c)				
			N of Valid Cases	19				
		55-64	Pearson Chi-Square	.(c)				
			N of Valid Cases	24				
		25-34	Pearson Chi-Square	.(b)				
			N of Valid Cases	9				
		35-44	Pearson Chi-Square	.(b)				
			N of Valid Cases	4				
		65-74	Pearson Chi-Square	.(b)				
			N of Valid Cases	1				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Hypothyroidism are constants.
c No statistics are computed because Hypothyroidism is a constant.
d 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,82.
e 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,16.
f No statistics are computed because Exposed is a constant.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	.	.	.
Tarone's	.	.	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	7,363	1	,007
Mantel-Haenszel	3,928	1	,047

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,000
ln(Estimate)			.
Std. Error of ln(Estimate)			.
Asymp. Sig. (2-sided)			.
Asymp. 95%	Common Odds Ratio	Lower Bound	.

Confidence Interval		Upper Bound	.
	ln(Common Odds Ratio)	Lower Bound	.
		Upper Bound	.

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Thyroid cancer ***

Frequencies

Notes

Output Created		12-MAR-2017 17:57:59
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=thycan agegrp sex affsett exp2 /STATISTICS=MINIMUM MAXIMUM MEAN MEDIAN /ORDER= ANALYSIS .
Resources	Elapsed Time	0:00:04,42
	Total Values Allowed	149796

Statistics

		thyroid cancer	age group	sex	affected settlement	Exposed
N	Valid	1055	1062	1060	1061	1033
	Missing	12	5	7	6	34
Mean		,04	5,47	1,78	,67	,44
Median		,00	6,00	2,00	1,00	,00
Minimum		0	1	1	0	0
Maximum		1	8	2	1	1

Frequency Table

thyroid cancer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	1015	95,1	96,2	96,2
	yes	40	3,7	3,8	100,0
	Total	1055	98,9	100,0	
Missing	System	12	1,1		
Total		1067	100,0		

age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-14	23	2,2	2,2	2,2
	15-24	8	,7	,8	2,9
	25-34	28	2,6	2,6	5,6
	35-44	85	8,0	8,0	13,6
	45-54	323	30,3	30,4	44,0
	55-64	442	41,4	41,6	85,6
	65-74	142	13,3	13,4	99,0
	75+	11	1,0	1,0	100,0
	Total	1062	99,5	100,0	
Missing	n.a.	5	,5		
Total		1067	100,0		

sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	233	21,8	22,0	22,0
	female	827	77,5	78,0	100,0
	Total	1060	99,3	100,0	
Missing	n.a.	7	,7		
Total		1067	100,0		

affected settlement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not affected	346	32,4	32,6	32,6
	affected	715	67,0	67,4	100,0
	Total	1061	99,4	100,0	
Missing	not clear	6	,6		
Total		1067	100,0		

Exposed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	577	54,1	55,9	55,9
	yes	456	42,7	44,1	100,0
	Total	1033	96,8	100,0	
Missing	not clear	34	3,2		
Total		1067	100,0		

*** Thyroid cancer ***
** simple crosstabulation **

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:03
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=agegrp sex affsett exp2 BY thycan /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,05
	Dimensions Requested	2
	Cells Available	116508

Warnings

The Tests for Homogeneity of the Odds Ratio table and the Mantel-Haenszel Common Odds Ratio Estimate table are not computed for age group * thyroid cancer, because either (1) the group variable does not have exactly two distinct non-missing values or/and (2) the response variable does not have exactly two distinct non-missing values.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
age group * thyroid cancer	1050	98,4%	17	1,6%	1067	100,0%
sex * thyroid cancer	1048	98,2%	19	1,8%	1067	100,0%
affected settlement * thyroid cancer	1049	98,3%	18	1,7%	1067	100,0%
Exposed * thyroid cancer	1021	95,7%	46	4,3%	1067	100,0%

age group * thyroid cancer

Crosstab

			thyroid cancer		
			no	yes	Total
age group	0-14	Count	23	0	23
		Expected Count	22,1	,9	23,0
	15-24	Count	8	0	8
		Expected Count	7,7	,3	8,0
	25-34	Count	28	0	28
		Expected Count	26,9	1,1	28,0
	35-44	Count	81	4	85
		Expected Count	81,8	3,2	85,0
	45-54	Count	310	10	320
		Expected Count	307,8	12,2	320,0
	55-64	Count	421	13	434
		Expected Count	417,5	16,5	434,0
	65-74	Count	130	11	141
		Expected Count	135,6	5,4	141,0
	75+	Count	9	2	11
		Expected Count	10,6	,4	11,0
Total		Count	1010	40	1050
		Expected Count	1010,0	40,0	1050,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16,050(a)	7	,025
Likelihood Ratio	14,125	7	,049
Linear-by-Linear Association	6,044	1	,014
N of Valid Cases	1050		

a 5 cells (31,3%) have expected count less than 5. The minimum expected count is ,30.

sex * thyroid cancer

Crosstab

			thyroid cancer		
			no	yes	Total
sex	male	Count	227	4	231
		Expected Count	222,2	8,8	231,0
	female	Count	781	36	817
		Expected Count	785,8	31,2	817,0
Total		Count	1008	40	1048
		Expected Count	1008,0	40,0	1048,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3,510(b)	1	,061		
Continuity Correction(a)	2,819	1	,093		
Likelihood Ratio	4,152	1	,042		
Fisher's Exact Test				,078	,039
Linear-by-Linear Association	3,506	1	,061		
N of Valid Cases	1048				

a Computed only for a 2x2 table

b 0 cells (,0%) have expected count less than 5. The minimum expected count is 8,82.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,000	0	.
Tarone's	,000	0	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	3,510	1	,061
Mantel-Haenszel	2,816	1	,093

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			2,616
ln(Estimate)			,962
Std. Error of ln(Estimate)			,532
Asymp. Sig. (2-sided)			,071
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,921
		Upper Bound	7,427
	ln(Common Odds Ratio)	Lower Bound	-,082
		Upper Bound	2,005

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

affected settlement * thyroid cancer

Crosstab

			thyroid cancer		
			no	yes	Total
affected settlement	not affected	Count	324	16	340
		Expected Count	327,0	13,0	340,0
	affected	Count	685	24	709
		Expected Count	682,0	27,0	709,0
Total		Count	1009	40	1049
		Expected Count	1009,0	40,0	1049,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1,093(b)	1	,296		
Continuity Correction(a)	,763	1	,383		
Likelihood Ratio	1,057	1	,304		
Fisher's Exact Test				,304	,190
Linear-by-Linear Association	1,092	1	,296		
N of Valid Cases	1049				

a Computed only for a 2x2 table

b 0 cells (,0%) have expected count less than 5. The minimum expected count is 12,96.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,000	0	.
Tarone's	,000	0	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	1,093	1	,296
Mantel-Haenszel	,762	1	,383

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,709
ln(Estimate)			-,343
Std. Error of ln(Estimate)			,330
Asymp. Sig. (2-sided)			,298
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,372
		Upper Bound	1,354
	ln(Common Odds Ratio)	Lower Bound	-,989
		Upper Bound	,303

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

Exposed * thyroid cancer

Crosstab

			thyroid cancer		
			no	yes	Total
Exposed	no	Count	545	22	567
		Expected Count	545,3	21,7	567,0
	yes	Count	437	17	454
		Expected Count	436,7	17,3	454,0
Total		Count	982	39	1021
		Expected Count	982,0	39,0	1021,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	,013(b)	1	,911		
Continuity Correction(a)	,000	1	1,000		
Likelihood Ratio	,013	1	,911		
Fisher's Exact Test				1,000	,523
Linear-by-Linear Association	,013	1	,911		
N of Valid Cases	1021				

a Computed only for a 2x2 table
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 17,34.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,000	0	.
Tarone's	,000	0	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,013	1	,911
Mantel-Haenszel	,003	1	,959

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,964
ln(Estimate)			-,037
Std. Error of ln(Estimate)			,329
Asymp. Sig. (2-sided)			,911
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,505
		Upper Bound	1,837
	ln(Common Odds Ratio)	Lower Bound	-,682
		Upper Bound	,608

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Thyroid cancer ***
** stratified by age or sex **

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:03
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY thycan BY agegrp sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,05
	Dimensions Requested	3
	Cells Available	95325

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * thyroid cancer * age group	1020	95,6%	47	4,4%	1067	100,0%
Exposed * thyroid cancer * sex	1018	95,4%	49	4,6%	1067	100,0%

Exposed * thyroid cancer * age group

Crosstab

age group				thyroid cancer		Total
				no	yes	
0-14	Exposed	no	Count	22		22
			Expected Count	22,0		22,0
	Total		Count	22		22
			Expected	22,0		22,0

			Count			
15-24	Exposed	no	Count	8		8
			Expected Count	8,0		8,0
	Total		Count	8		8
			Expected Count	8,0		8,0
25-34	Exposed	no	Count	27		27
			Expected Count	27,0		27,0
	Total		Count	27		27
			Expected Count	27,0		27,0
35-44	Exposed	no	Count	79	3	82
			Expected Count	79,0	3,0	82,0
		yes	Count	1	0	1
			Expected Count	1,0	,0	1,0
	Total		Count	80	3	83
			Expected Count	80,0	3,0	83,0
45-54	Exposed	no	Count	211	7	218
			Expected Count	211,0	7,0	218,0
		yes	Count	90	3	93
			Expected Count	90,0	3,0	93,0
	Total		Count	301	10	311
			Expected Count	301,0	10,0	311,0
55-64	Exposed	no	Count	154	7	161
			Expected Count	156,1	4,9	161,0
		yes	Count	258	6	264
			Expected Count	255,9	8,1	264,0
	Total		Count	412	13	425
			Expected Count	412,0	13,0	425,0
65-74	Exposed	no	Count	40	5	45
			Expected Count	41,3	3,7	45,0
		yes	Count	82	6	88
			Expected Count	80,7	7,3	88,0
	Total		Count	122	11	133
			Expected Count	122,0	11,0	133,0
75+	Exposed	no	Count	3	0	3
			Expected Count	2,5	,5	3,0
		yes	Count	6	2	8
			Expected Count	6,5	1,5	8,0
	Total		Count	9	2	11
			Expected Count	9,0	2,0	11,0

Chi-Square Tests

age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
0-14	Pearson Chi-Square	.(b)				
	N of Valid Cases	22				
15-24	Pearson Chi-Square	.(b)				
	N of Valid Cases	8				
25-34	Pearson Chi-Square	.(b)				
	N of Valid Cases	27				
35-44	Pearson Chi-Square	,038(c)	1	,846		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,074	1	,785		
	Fisher's Exact Test				1,000	,964
	Linear-by-Linear Association	,038	1	,846		
	N of Valid Cases	83				
45-54	Pearson Chi-Square	,000(d)	1	,995		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,000	1	,995		
	Fisher's Exact Test				1,000	,618
	Linear-by-Linear Association	,000	1	,995		
	N of Valid Cases	311				
55-64	Pearson Chi-Square	1,452(e)	1	,228		
	Continuity Correction(a)	,837	1	,360		
	Likelihood Ratio	1,403	1	,236		
	Fisher's Exact Test				,254	,179
	Linear-by-Linear Association	1,449	1	,229		
	N of Valid Cases	425				
65-74	Pearson Chi-Square	,723(f)	1	,395		
	Continuity Correction(a)	,268	1	,605		
	Likelihood Ratio	,695	1	,404		
	Fisher's Exact Test				,508	,295
	Linear-by-Linear Association	,718	1	,397		
	N of Valid Cases	133				
75+	Pearson Chi-Square	,917(g)	1	,338		
	Continuity Correction(a)	,006	1	,936		
	Likelihood Ratio	1,434	1	,231		

	Fisher's Exact Test				1,000	,509
	Linear-by-Linear Association	,833	1	,361		
	N of Valid Cases	11				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and thyroid cancer are constants.
c 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,04.
d 1 cells (25,0%) have expected count less than 5. The minimum expected count is 2,99.
e 1 cells (25,0%) have expected count less than 5. The minimum expected count is 4,92.
f 1 cells (25,0%) have expected count less than 5. The minimum expected count is 3,72.
g 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,55.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	1,940	4	,747
Tarone's	1,939	4	,747

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	1,055	1	,304
Mantel-Haenszel	,710	1	,399

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,698
ln(Estimate)			-,359
Std. Error of ln(Estimate)			,357
Asymp. Sig. (2-sided)			,314
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,347
		Upper Bound	1,405
	ln(Common Odds Ratio)	Lower Bound	-1,058
		Upper Bound	,340

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

Exposed * thyroid cancer * sex

Crosstab

sex				thyroid cancer		
				no	yes	Total
male	Exposed	no	Count	94	0	94

			Expected Count	92,7	1,3	94,0
		yes	Count	127	3	130
			Expected Count	128,3	1,7	130,0
	Total		Count	221	3	224
			Expected Count	221,0	3,0	224,0
female	Exposed	no	Count	450	22	472
			Expected Count	450,6	21,4	472,0
		yes	Count	308	14	322
			Expected Count	307,4	14,6	322,0
	Total		Count	758	36	794
			Expected Count	758,0	36,0	794,0

Chi-Square Tests

sex		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
male	Pearson Chi-Square	2,199(b)	1	,138		
	Continuity Correction(a)	,799	1	,371		
	Likelihood Ratio	3,294	1	,070		
	Fisher's Exact Test				,266	,194
	Linear-by-Linear Association	2,189	1	,139		
	N of Valid Cases	224				
female	Pearson Chi-Square	,043(c)	1	,835		
	Continuity Correction(a)	,001	1	,972		
	Likelihood Ratio	,044	1	,835		
	Fisher's Exact Test				,864	,490
	Linear-by-Linear Association	,043	1	,835		
	N of Valid Cases	794				

a Computed only for a 2x2 table
b 2 cells (50,0%) have expected count less than 5. The minimum expected count is 1,26.
c 0 cells (,0%) have expected count less than 5. The minimum expected count is 14,60.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	2,220	1	,136
Tarone's	2,220	1	,136

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,048	1	,826
Mantel-Haenszel	,003	1	,958

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			1,077
ln(Estimate)			,074
Std. Error of ln(Estimate)			,335
Asymp. Sig. (2-sided)			,824
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,558
		Upper Bound	2,078
	ln(Common Odds Ratio)	Lower Bound	-,583
		Upper Bound	,731

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Thyroid cancer ***

** stratified by age and sex **

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:04
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.

Syntax		CROSSTABS /TABLES=exp2 BY thycan BY agegrp BY sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:03,25
	Dimensions Requested	4
	Cells Available	80659

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * thyroid cancer * age group * sex	1018	95,4%	49	4,6%	1067	100,0%

Exposed * thyroid cancer * age group * sex Crosstabulation

sex	age group				thyroid cancer		Total
					no	yes	
male	0-14	Exposed	no	Count	9		9
				Expected Count	9,0		9,0
		Total		Count	9		9
				Expected Count	9,0		9,0
	15-24	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	25-34	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	35-44	Exposed	no	Count	8		8
				Expected Count	8,0		8,0
		Total		Count	8		8
				Expected Count	8,0		8,0
	45-54	Exposed	no	Count	35		35
				Expected Count	35,0		35,0
			yes	Count	33		33
				Expected Count	33,0		33,0

		Total		Count	68		68
				Expected Count	68,0		68,0
	55-64	Exposed	no	Count	26		26
				Expected Count	26,0		26,0
			yes	Count	73		73
				Expected Count	73,0		73,0
		Total		Count	99		99
				Expected Count	99,0		99,0
	65-74	Exposed	no	Count	8	0	8
				Expected Count	7,2	,8	8,0
			yes	Count	20	3	23
				Expected Count	20,8	2,2	23,0
		Total		Count	28	3	31
				Expected Count	28,0	3,0	31,0
	75+	Exposed	no	Count	2		2
				Expected Count	2,0		2,0
			yes	Count	1		1
				Expected Count	1,0		1,0
		Total		Count	3		3
				Expected Count	3,0		3,0
female	0-14	Exposed	no	Count	13		13
				Expected Count	13,0		13,0
		Total		Count	13		13
				Expected Count	13,0		13,0
	15-24	Exposed	no	Count	5		5
				Expected Count	5,0		5,0
		Total		Count	5		5
				Expected Count	5,0		5,0
	25-34	Exposed	no	Count	24		24
				Expected Count	24,0		24,0
		Total		Count	24		24
				Expected Count	24,0		24,0
	35-44	Exposed	no	Count	71	3	74
				Expected Count	71,0	3,0	74,0
			yes	Count	1	0	1
				Expected Count	1,0	,0	1,0
		Total		Count	72	3	75
				Expected Count	72,0	3,0	75,0
	45-54	Exposed	no	Count	176	7	183

			Expected Count	175,4	7,6	183,0
		yes	Count	56	3	59
			Expected Count	56,6	2,4	59,0
	Total		Count	232	10	242
			Expected Count	232,0	10,0	242,0
55-64	Exposed	no	Count	128	7	135
			Expected Count	129,6	5,4	135,0
		yes	Count	184	6	190
			Expected Count	182,4	7,6	190,0
	Total		Count	312	13	325
			Expected Count	312,0	13,0	325,0
65-74	Exposed	no	Count	32	5	37
			Expected Count	34,1	2,9	37,0
		yes	Count	62	3	65
			Expected Count	59,9	5,1	65,0
	Total		Count	94	8	102
			Expected Count	94,0	8,0	102,0
75+	Exposed	no	Count	1	0	1
			Expected Count	,8	,3	1,0
		yes	Count	5	2	7
			Expected Count	5,3	1,8	7,0
	Total		Count	6	2	8
			Expected Count	6,0	2,0	8,0

Chi-Square Tests

sex	age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
male	0-14	Pearson Chi-Square	.(b)				
		N of Valid Cases	9				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	35-44	Pearson Chi-Square	.(b)				
		N of Valid Cases	8				
	45-54	Pearson Chi-Square	.(c)				
		N of Valid	68				

		Cases						
	55-64	Pearson Chi-Square	.(c)					
		N of Valid Cases	99					
	65-74	Pearson Chi-Square	1,155(d)	1	,282			
		Continuity Correction(a)	,145	1	,703			
		Likelihood Ratio	1,900	1	,168			
		Fisher's Exact Test				,550	,394	
		Linear-by-Linear Association	1,118	1	,290			
		N of Valid Cases	31					
	75+	Pearson Chi-Square	.(c)					
		N of Valid Cases	3					
female	0-14	Pearson Chi-Square	.(b)					
		N of Valid Cases	13					
	15-24	Pearson Chi-Square	.(b)					
		N of Valid Cases	5					
	25-34	Pearson Chi-Square	.(b)					
		N of Valid Cases	24					
	35-44	Pearson Chi-Square	,042(e)	1	,837			
		Continuity Correction(a)	,000	1	1,000			
		Likelihood Ratio	,082	1	,774			
		Fisher's Exact Test				1,000	,960	
		Linear-by-Linear Association	,042	1	,838			
		N of Valid Cases	75					
	45-54	Pearson Chi-Square	,179(f)	1	,673			
		Continuity Correction(a)	,002	1	,963			
		Likelihood Ratio	,171	1	,679			
		Fisher's Exact Test				,709	,457	
		Linear-by-Linear Association	,178	1	,673			
		N of Valid Cases	242					
	55-64	Pearson Chi-Square	,845(g)	1	,358			
		Continuity Correction(a)	,399	1	,527			
		Likelihood Ratio	,830	1	,362			

		Fisher's Exact Test				,398	,262
		Linear-by-Linear Association	,842	1	,359		
		N of Valid Cases	325				
	65-74	Pearson Chi-Square	2,583(h)	1	,108		
		Continuity Correction(a)	1,498	1	,221		
		Likelihood Ratio	2,464	1	,117		
		Fisher's Exact Test				,135	,112
		Linear-by-Linear Association	2,558	1	,110		
		N of Valid Cases	102				
	75+	Pearson Chi-Square	,381(i)	1	,537		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,622	1	,430		
		Fisher's Exact Test				1,000	,750
		Linear-by-Linear Association	,333	1	,564		
		N of Valid Cases	8				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and thyroid cancer are constants.
c No statistics are computed because thyroid cancer is a constant.
d 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,77.
e 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,04.
f 1 cells (25,0%) have expected count less than 5. The minimum expected count is 2,44.
g 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,40.
h 1 cells (25,0%) have expected count less than 5. The minimum expected count is 2,90.
i 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,25.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	4,329	5	,503
Tarone's	4,328	5	,503

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,641	1	,423
Mantel-Haenszel	,374	1	,541

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,752
ln(Estimate)			-,286
Std. Error of ln(Estimate)			,366
Asymp. Sig. (2-sided)			,435
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,367
		Upper Bound	1,539
	ln(Common Odds Ratio)	Lower Bound	-1,002
		Upper Bound	,431

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Thyroid cancer ***
** affected settlements only **

*** Thyroid cancer ***
* stratified by age and sex *

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:07
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	affected sett. (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	715
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY Function2 BY agegrp BY sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,03
	Dimensions Requested	4
	Cells Available	80659

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Hypothyroidism * age group * sex	691	96,6%	24	3,4%	715	100,0%

Exposed * Hypothyroidism * age group * sex Crosstabulation

sex	age group				Hypothyroidism		Total
					no	yes	
male	25-34	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	35-44	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	45-54	Exposed	no	Count	17		17
				Expected Count	17,0		17,0
			yes	Count	33		33
				Expected Count	33,0		33,0
		Total		Count	50		50
				Expected Count	50,0		50,0
	55-64	Exposed	no	Count	13	0	13
				Expected Count	12,9	,1	13,0
			yes	Count	73	1	74
				Expected Count	73,1	,9	74,0
		Total		Count	86	1	87
				Expected Count	86,0	1,0	87,0
	65-74	Exposed	no	Count	4	1	5
				Expected Count	4,5	,5	5,0
			yes	Count	21	2	23
				Expected Count	20,5	2,5	23,0
		Total		Count	25	3	28
				Expected Count	25,0	3,0	28,0
	75+	Exposed	yes	Count	1		1
				Expected Count	1,0		1,0

		Total		Count	1		1
				Expected Count	1,0		1,0
female	25-34	Exposed	no	Count	19		19
				Expected Count	19,0		19,0
		Total		Count	19		19
				Expected Count	19,0		19,0
	35-44	Exposed	no	Count	37	6	43
				Expected Count	37,1	5,9	43,0
			yes	Count	1	0	1
				Expected Count	,9	,1	1,0
		Total		Count	38	6	44
				Expected Count	38,0	6,0	44,0
	45-54	Exposed	no	Count	72	11	83
				Expected Count	76,5	6,5	83,0
			yes	Count	57	0	57
				Expected Count	52,5	4,5	57,0
		Total		Count	129	11	140
				Expected Count	129,0	11,0	140,0
	55-64	Exposed	no	Count	38	7	45
				Expected Count	43,1	1,9	45,0
			yes	Count	183	3	186
				Expected Count	177,9	8,1	186,0
		Total		Count	221	10	231
				Expected Count	221,0	10,0	231,0
	65-74	Exposed	no	Count	10	1	11
				Expected Count	10,0	1,0	11,0
			yes	Count	59	6	65
				Expected Count	59,0	6,0	65,0
		Total		Count	69	7	76
				Expected Count	69,0	7,0	76,0
	75+	Exposed	yes	Count	7		7
				Expected Count	7,0		7,0
		Total		Count	7		7
				Expected Count	7,0		7,0
	15-24	Exposed	no	Count	2		2
				Expected Count	2,0		2,0
		Total		Count	2		2
				Expected Count	2,0		2,0

Chi-Square Tests

sex	age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
male	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	35-44	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	45-54	Pearson Chi-Square	.(c)				
		N of Valid Cases	50				
	55-64	Pearson Chi-Square	,178(d)	1	,673		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,326	1	,568		
		Fisher's Exact Test				1,000	,851
		Linear-by-Linear Association	,176	1	,675		
		N of Valid Cases	87				
	65-74	Pearson Chi-Square	,549(e)	1	,459		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,474	1	,491		
		Fisher's Exact Test				,459	,459
		Linear-by-Linear Association	,529	1	,467		
		N of Valid Cases	28				
	75+	Pearson Chi-Square	.(b)				
		N of Valid Cases	1				
female	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	19				
	35-44	Pearson Chi-Square	,162(f)	1	,688		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,297	1	,586		
		Fisher's Exact Test				1,000	,864
		Linear-by-Linear Association	,158	1	,691		
		N of Valid Cases	44				
	45-54	Pearson Chi-Square	8,198(g)	1	,004		

		Continuity Correction(a)	6,470	1	,011		
		Likelihood Ratio	12,141	1	,000		
		Fisher's Exact Test				,003	,002
		Linear-by-Linear Association	8,140	1	,004		
		N of Valid Cases	140				
	55-64	Pearson Chi-Square	17,007(h)	1	,000		
		Continuity Correction(a)	13,807	1	,000		
		Likelihood Ratio	12,743	1	,000		
		Fisher's Exact Test				,001	,001
		Linear-by-Linear Association	16,934	1	,000		
		N of Valid Cases	231				
	65-74	Pearson Chi-Square	,000(i)	1	,988		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,000	1	,988		
		Fisher's Exact Test				1,000	,734
		Linear-by-Linear Association	,000	1	,988		
		N of Valid Cases	76				
	75+	Pearson Chi-Square	.(b)				
		N of Valid Cases	7				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid Cases	2				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Hypothyroidism are constants.
c No statistics are computed because Hypothyroidism is a constant.
d 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,15.
e 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,54.
f 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,14.
g 1 cells (25,0%) have expected count less than 5. The minimum expected count is 4,48.
h 1 cells (25,0%) have expected count less than 5. The minimum expected count is 1,95.
i 1 cells (25,0%) have expected count less than 5. The minimum expected count is 1,01.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	7,123	5	,212
Tarone's	6,886	5	,229

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	18,514	1	,000
Mantel-Haenszel	16,539	1	,000

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,147
ln(Estimate)			-1,917
Std. Error of ln(Estimate)			,462
Asymp. Sig. (2-sided)			,000
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,059
		Upper Bound	,364
	ln(Common Odds Ratio)	Lower Bound	-2,823
		Upper Bound	-1,011

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Nodules ***

Frequencies

Notes

Output Created		12-MAR-2017 17:58:07
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=nodule agegrp sex affsett exp2 /STATISTICS=MINIMUM MAXIMUM MEAN MEDIAN /ORDER= ANALYSIS .
Resources	Elapsed Time	0:00:00,03

Total Values Allowed	149796

Statistics

		Thyroid nodule	age group	sex	affected settlement	Exposed
N	Valid	1055	1062	1060	1061	1033
	Missing	12	5	7	6	34
Mean		,29	5,47	1,78	,67	,44
Median		,00	6,00	2,00	1,00	,00
Minimum		0	1	1	0	0
Maximum		1	8	2	1	1

Frequency Table

Thyroid nodule

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no nodule	751	70,4	71,2	71,2
	nodule	304	28,5	28,8	100,0
	Total	1055	98,9	100,0	
Missing	System	12	1,1		
Total		1067	100,0		

age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-14	23	2,2	2,2	2,2
	15-24	8	,7	,8	2,9
	25-34	28	2,6	2,6	5,6
	35-44	85	8,0	8,0	13,6
	45-54	323	30,3	30,4	44,0
	55-64	442	41,4	41,6	85,6
	65-74	142	13,3	13,4	99,0
	75+	11	1,0	1,0	100,0
	Total	1062	99,5	100,0	
Missing	n.a.	5	,5		
Total		1067	100,0		

sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	233	21,8	22,0	22,0

	female	827	77,5	78,0	100,0
	Total	1060	99,3	100,0	
Missing	n.a.	7	,7		
Total		1067	100,0		

affected settlement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not affected	346	32,4	32,6	32,6
	affected	715	67,0	67,4	100,0
	Total	1061	99,4	100,0	
Missing	not clear	6	,6		
Total		1067	100,0		

Exposed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	577	54,1	55,9	55,9
	yes	456	42,7	44,1	100,0
	Total	1033	96,8	100,0	
Missing	not clear	34	3,2		
Total		1067	100,0		

*** Nodules ***
** simple crosstabulation **

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:07
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.

	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=agegrp sex affsett exp2 BY nodule /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:02,57
	Dimensions Requested	2
	Cells Available	116508

Warnings

The Tests for Homogeneity of the Odds Ratio table and the Mantel-Haenszel Common Odds Ratio Estimate table are not computed for age group * Thyroid nodule, because either (1) the group variable does not have exactly two distinct non-missing values or/and (2) the response variable does not have exactly two distinct non-missing values.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
age group * Thyroid nodule	1050	98,4%	17	1,6%	1067	100,0%
sex * Thyroid nodule	1048	98,2%	19	1,8%	1067	100,0%
affected settlement * Thyroid nodule	1049	98,3%	18	1,7%	1067	100,0%
Exposed * Thyroid nodule	1021	95,7%	46	4,3%	1067	100,0%

age group * Thyroid nodule

Crosstab

			Thyroid nodule		
			no nodule	nodule	Total
age group	0-14	Count	22	1	23
		Expected Count	16,3	6,7	23,0
	15-24	Count	8	0	8
		Expected Count	5,7	2,3	8,0
	25-34	Count	26	2	28
		Expected Count	19,9	8,1	28,0

	35-44	Count	70	15	85
		Expected Count	60,4	24,6	85,0
	45-54	Count	237	83	320
		Expected Count	227,4	92,6	320,0
	55-64	Count	291	143	434
		Expected Count	308,3	125,7	434,0
	65-74	Count	87	54	141
		Expected Count	100,2	40,8	141,0
	75+	Count	5	6	11
		Expected Count	7,8	3,2	11,0
Total		Count	746	304	1050
		Expected Count	746,0	304,0	1050,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36,059(a)	7	,000
Likelihood Ratio	42,443	7	,000
Linear-by-Linear Association	34,641	1	,000
N of Valid Cases	1050		

a 2 cells (12,5%) have expected count less than 5. The minimum expected count is 2,32.

sex * Thyroid nodule

Crosstab

			Thyroid nodule		
			no nodule	nodule	Total
sex	male	Count	191	40	231
		Expected Count	164,0	67,0	231,0
	female	Count	553	264	817
		Expected Count	580,0	237,0	817,0
Total		Count	744	304	1048
		Expected Count	744,0	304,0	1048,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	19,669(b)	1	,000		
Continuity	18,947	1	,000		

Correction(a)					
Likelihood Ratio	21,208	1	,000		
Fisher's Exact Test				,000	,000
Linear-by-Linear Association	19,650	1	,000		
N of Valid Cases	1048				

a Computed only for a 2x2 table
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 67,01.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,000	0	.
Tarone's	,000	0	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	19,669	1	,000
Mantel-Haenszel	18,929	1	,000

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			2,280
ln(Estimate)			,824
Std. Error of ln(Estimate)			,189
Asymp. Sig. (2-sided)			,000
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	1,573
		Upper Bound	3,304
	ln(Common Odds Ratio)	Lower Bound	,453
		Upper Bound	1,195

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

affected settlement * Thyroid nodule

Crosstab

			Thyroid nodule		
			no nodule	nodule	Total
affected settlement	not affected	Count	239	101	340
		Expected Count	242,1	97,9	340,0
	affected	Count	508	201	709
		Expected Count	504,9	204,1	709,0

Total	Count	747	302	1049
	Expected Count	747,0	302,0	1049,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	,206(b)	1	,650		
Continuity Correction(a)	,145	1	,703		
Likelihood Ratio	,205	1	,650		
Fisher's Exact Test				,662	,350
Linear-by-Linear Association	,206	1	,650		
N of Valid Cases	1049				

a Computed only for a 2x2 table
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 97,88.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,000	0	.
Tarone's	,000	0	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,206	1	,650
Mantel-Haenszel	,145	1	,703

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,936
ln(Estimate)			-,066
Std. Error of ln(Estimate)			,145
Asymp. Sig. (2-sided)			,650
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,705
		Upper Bound	1,244
	ln(Common Odds Ratio)	Lower Bound	-,350
		Upper Bound	,218

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

Exposed * Thyroid nodule

Crosstab

			Thyroid nodule		
			no nodule	nodule	Total
Exposed	no	Count	417	150	567
		Expected Count	404,3	162,7	567,0
	yes	Count	311	143	454
		Expected Count	323,7	130,3	454,0
Total		Count	728	293	1021
		Expected Count	728,0	293,0	1021,0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3,133(b)	1	,077		
Continuity Correction(a)	2,892	1	,089		
Likelihood Ratio	3,124	1	,077		
Fisher's Exact Test				,082	,045
Linear-by-Linear Association	3,130	1	,077		
N of Valid Cases	1021				

a Computed only for a 2x2 table
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 130,29.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,000	0	.
Tarone's	,000	0	.

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	3,133	1	,077
Mantel-Haenszel	2,889	1	,089

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate	1,278
ln(Estimate)	,246

Std. Error of ln(Estimate)			,139
Asymp. Sig. (2-sided)			,077
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,974
		Upper Bound	1,678
	ln(Common Odds Ratio)	Lower Bound	-,027
		Upper Bound	,518

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Nodules ***
** stratified by age or sex **

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:09
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY nodule BY agegrp sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,03
	Dimensions Requested	3
	Cells Available	95325

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent

Exposed * Thyroid nodule * age group	1020	95,6%	47	4,4%	1067	100,0%
Exposed * Thyroid nodule * sex	1018	95,4%	49	4,6%	1067	100,0%

Exposed * Thyroid nodule * age group

Crosstab

age group				Thyroid nodule		Total
				no nodule	nodule	
0-14	Exposed	no	Count	21	1	22
			Expected Count	21,0	1,0	22,0
	Total		Count	21	1	22
			Expected Count	21,0	1,0	22,0
15-24	Exposed	no	Count	8		8
			Expected Count	8,0		8,0
	Total		Count	8		8
			Expected Count	8,0		8,0
25-34	Exposed	no	Count	25	2	27
			Expected Count	25,0	2,0	27,0
	Total		Count	25	2	27
			Expected Count	25,0	2,0	27,0
35-44	Exposed	no	Count	67	15	82
			Expected Count	67,2	14,8	82,0
		yes	Count	1	0	1
			Expected Count	,8	,2	1,0
	Total		Count	68	15	83
			Expected Count	68,0	15,0	83,0
45-54	Exposed	no	Count	165	53	218
			Expected Count	163,3	54,7	218,0
		yes	Count	68	25	93
			Expected Count	69,7	23,3	93,0
	Total		Count	233	78	311
			Expected Count	233,0	78,0	311,0
55-64	Exposed	no	Count	102	59	161
			Expected Count	108,3	52,7	161,0
		yes	Count	184	80	264
			Expected Count	177,7	86,3	264,0
	Total		Count	286	139	425
			Expected Count	286,0	139,0	425,0

65-74	Exposed	no	Count	27	18	45
			Expected Count	27,4	17,6	45,0
		yes	Count	54	34	88
			Expected Count	53,6	34,4	88,0
	Total		Count	81	52	133
			Expected Count	81,0	52,0	133,0
75+	Exposed	no	Count	1	2	3
			Expected Count	1,4	1,6	3,0
		yes	Count	4	4	8
			Expected Count	3,6	4,4	8,0
	Total		Count	5	6	11
			Expected Count	5,0	6,0	11,0

Chi-Square Tests

age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
0-14	Pearson Chi-Square	.(b)				
	N of Valid Cases	22				
15-24	Pearson Chi-Square	.(c)				
	N of Valid Cases	8				
25-34	Pearson Chi-Square	.(b)				
	N of Valid Cases	27				
35-44	Pearson Chi-Square	,223(d)	1	,637		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,401	1	,526		
	Fisher's Exact Test				1,000	,819
	Linear-by-Linear Association	,221	1	,639		
	N of Valid Cases	83				
45-54	Pearson Chi-Square	,229(e)	1	,632		
	Continuity Correction(a)	,113	1	,737		
	Likelihood Ratio	,227	1	,634		
	Fisher's Exact Test				,669	,365
	Linear-by-Linear Association	,228	1	,633		
	N of Valid Cases	311				
55-64	Pearson Chi-Square	1,828(f)	1	,176		
	Continuity Correction(a)	1,551	1	,213		
	Likelihood Ratio	1,816	1	,178		
	Fisher's Exact Test				,201	,107

	Linear-by-Linear Association	1,824	1	,177		
	N of Valid Cases	425				
65-74	Pearson Chi-Square	,023(g)	1	,879		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,023	1	,879		
	Fisher's Exact Test				1,000	,512
	Linear-by-Linear Association	,023	1	,879		
	N of Valid Cases	133				
75+	Pearson Chi-Square	,244(h)	1	,621		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,249	1	,618		
	Fisher's Exact Test				1,000	,576
	Linear-by-Linear Association	,222	1	,637		
	N of Valid Cases	11				

a Computed only for a 2x2 table
b No statistics are computed because Exposed is a constant.
c No statistics are computed because Exposed and Thyroid nodule are constants.
d 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,18.
e 0 cells (,0%) have expected count less than 5. The minimum expected count is 23,32.
f 0 cells (,0%) have expected count less than 5. The minimum expected count is 52,66.
g 0 cells (,0%) have expected count less than 5. The minimum expected count is 17,59.
h 4 cells (100,0%) have expected count less than 5. The minimum expected count is 1,36.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	1,821	4	,769
Tarone's	1,820	4	,769

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,751	1	,386
Mantel-Haenszel	,620	1	,431

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate	,876
ln(Estimate)	-,132
Std. Error of ln(Estimate)	,154

Asymp. Sig. (2-sided)			,389
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,648
		Upper Bound	1,184
	ln(Common Odds Ratio)	Lower Bound	-,433
		Upper Bound	,169

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

Exposed * Thyroid nodule * sex

Crosstab

sex				Thyroid nodule		Total
				no nodule	nodule	
male	Exposed	no	Count	76	18	94
			Expected Count	77,6	16,4	94,0
		yes	Count	109	21	130
			Expected Count	107,4	22,6	130,0
	Total		Count	185	39	224
			Expected Count	185,0	39,0	224,0
female	Exposed	no	Count	340	132	472
			Expected Count	321,0	151,0	472,0
		yes	Count	200	122	322
			Expected Count	219,0	103,0	322,0
	Total		Count	540	254	794
			Expected Count	540,0	254,0	794,0

Chi-Square Tests

sex		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
male	Pearson Chi-Square	,340(b)	1	,560		
	Continuity Correction(a)	,164	1	,686		
	Likelihood Ratio	,338	1	,561		
	Fisher's Exact Test				,595	,341
	Linear-by-Linear Association	,339	1	,561		
	N of Valid Cases	224				
female	Pearson Chi-Square	8,662(c)	1	,003		
	Continuity Correction(a)	8,212	1	,004		
	Likelihood Ratio	8,600	1	,003		

	Fisher's Exact Test			,004	,002
	Linear-by-Linear Association	8,651	1	,003	
	N of Valid Cases	794			

a Computed only for a 2x2 table
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 16,37.
c 0 cells (,0%) have expected count less than 5. The minimum expected count is 103,01.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	2,941	1	,086
Tarone's	2,940	1	,086

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	6,089	1	,014
Mantel-Haenszel	5,733	1	,017

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			1,413
ln(Estimate)			,346
Std. Error of ln(Estimate)			,141
Asymp. Sig. (2-sided)			,014
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	1,072
		Upper Bound	1,864
	ln(Common Odds Ratio)	Lower Bound	,069
		Upper Bound	,623

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Nodules ***
** stratified by age and sex **

Crosstabs

Notes

Output Created	12-MAR-2017 17:58:09
Comments	

Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1067
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY nodule BY agegrp BY sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:03,29
	Dimensions Requested	4
	Cells Available	80659

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Thyroid nodule * age group * sex	1018	95,4%	49	4,6%	1067	100,0%

Exposed * Thyroid nodule * age group * sex Crosstabulation

sex	age group				Thyroid nodule		Total
					no nodule	nodule	
male	0-14	Exposed	no	Count	9		9
				Expected Count	9,0		9,0
		Total		Count	9		9
				Expected Count	9,0		9,0
	15-24	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	25-34	Exposed	no	Count	3		3

				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	35-44	Exposed	no	Count	6	2	8
				Expected Count	6,0	2,0	8,0
		Total		Count	6	2	8
				Expected Count	6,0	2,0	8,0
	45-54	Exposed	no	Count	28	7	35
				Expected Count	28,8	6,2	35,0
			yes	Count	28	5	33
				Expected Count	27,2	5,8	33,0
		Total		Count	56	12	68
				Expected Count	56,0	12,0	68,0
	55-64	Exposed	no	Count	20	6	26
				Expected Count	21,5	4,5	26,0
			yes	Count	62	11	73
				Expected Count	60,5	12,5	73,0
		Total		Count	82	17	99
				Expected Count	82,0	17,0	99,0
	65-74	Exposed	no	Count	7	1	8
				Expected Count	6,7	1,3	8,0
			yes	Count	19	4	23
				Expected Count	19,3	3,7	23,0
		Total		Count	26	5	31
				Expected Count	26,0	5,0	31,0
	75+	Exposed	no	Count		2	2
				Expected Count		2,0	2,0
			yes	Count		1	1
				Expected Count		1,0	1,0
		Total		Count		3	3
				Expected Count		3,0	3,0
female	0-14	Exposed	no	Count	12	1	13
				Expected Count	12,0	1,0	13,0
		Total		Count	12	1	13
				Expected Count	12,0	1,0	13,0
	15-24	Exposed	no	Count	5		5
				Expected Count	5,0		5,0
		Total		Count	5		5
				Expected	5,0		5,0

				Count			
	25-34	Exposed	no	Count	22	2	24
				Expected Count	22,0	2,0	24,0
		Total		Count	22	2	24
				Expected Count	22,0	2,0	24,0
	35-44	Exposed	no	Count	61	13	74
				Expected Count	61,2	12,8	74,0
			yes	Count	1	0	1
				Expected Count	,8	,2	1,0
		Total		Count	62	13	75
				Expected Count	62,0	13,0	75,0
	45-54	Exposed	no	Count	137	46	183
				Expected Count	133,1	49,9	183,0
			yes	Count	39	20	59
				Expected Count	42,9	16,1	59,0
		Total		Count	176	66	242
				Expected Count	176,0	66,0	242,0
	55-64	Exposed	no	Count	82	53	135
				Expected Count	84,3	50,7	135,0
			yes	Count	121	69	190
				Expected Count	118,7	71,3	190,0
		Total		Count	203	122	325
				Expected Count	203,0	122,0	325,0
	65-74	Exposed	no	Count	20	17	37
				Expected Count	20,0	17,0	37,0
			yes	Count	35	30	65
				Expected Count	35,0	30,0	65,0
		Total		Count	55	47	102
				Expected Count	55,0	47,0	102,0
	75+	Exposed	no	Count	1	0	1
				Expected Count	,6	,4	1,0
			yes	Count	4	3	7
				Expected Count	4,4	2,6	7,0
		Total		Count	5	3	8
				Expected Count	5,0	3,0	8,0

Chi-Square Tests

sex	age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)

male	0-14	Pearson Chi-Square	.(b)				
		N of Valid Cases	9				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	35-44	Pearson Chi-Square	.(c)				
		N of Valid Cases	8				
	45-54	Pearson Chi-Square	,275(d)	1	,600		
		Continuity Correction(a)	,042	1	,837		
		Likelihood Ratio	,276	1	,599		
		Fisher's Exact Test				,753	,420
		Linear-by-Linear Association	,271	1	,603		
		N of Valid Cases	68				
	55-64	Pearson Chi-Square	,864(e)	1	,352		
		Continuity Correction(a)	,393	1	,531		
		Likelihood Ratio	,823	1	,364		
		Fisher's Exact Test				,373	,259
		Linear-by-Linear Association	,856	1	,355		
		N of Valid Cases	99				
	65-74	Pearson Chi-Square	,105(f)	1	,746		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,110	1	,740		
		Fisher's Exact Test				1,000	,615
		Linear-by-Linear Association	,102	1	,750		
		N of Valid Cases	31				
	75+	Pearson Chi-Square	.(g)				
		N of Valid Cases	3				
female	0-14	Pearson Chi-Square	.(c)				
		N of Valid Cases	13				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid	5				

		Cases					
	25-34	Pearson Chi-Square	.(c)				
		N of Valid Cases	24				
	35-44	Pearson Chi-Square	,213(h)	1	,645		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,384	1	,536		
		Fisher's Exact Test				1,000	,827
		Linear-by-Linear Association	,210	1	,647		
		N of Valid Cases	75				
	45-54	Pearson Chi-Square	1,727(i)	1	,189		
		Continuity Correction(a)	1,313	1	,252		
		Likelihood Ratio	1,677	1	,195		
		Fisher's Exact Test				,239	,127
		Linear-by-Linear Association	1,720	1	,190		
		N of Valid Cases	242				
	55-64	Pearson Chi-Square	,292(j)	1	,589		
		Continuity Correction(a)	,180	1	,672		
		Likelihood Ratio	,291	1	,589		
		Fisher's Exact Test				,642	,335
		Linear-by-Linear Association	,291	1	,590		
		N of Valid Cases	325				
	65-74	Pearson Chi-Square	,000(k)	1	,984		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,000	1	,984		
		Fisher's Exact Test				1,000	,574
		Linear-by-Linear Association	,000	1	,984		
		N of Valid Cases	102				
	75+	Pearson Chi-Square	,686(l)	1	,408		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	1,024	1	,312		
		Fisher's Exact Test				1,000	,625
		Linear-by-Linear Association	,600	1	,439		

	N of Valid Cases	8				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Thyroid nodule are constants.
c No statistics are computed because Exposed is a constant.
d 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,82.
e 1 cells (25,0%) have expected count less than 5. The minimum expected count is 4,46.
f 2 cells (50,0%) have expected count less than 5. The minimum expected count is 1,29.
g No statistics are computed because Thyroid nodule is a constant.
h 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,17.
i 0 cells (,0%) have expected count less than 5. The minimum expected count is 16,09.
j 0 cells (,0%) have expected count less than 5. The minimum expected count is 50,68.
k 0 cells (,0%) have expected count less than 5. The minimum expected count is 17,05.
l 4 cells (100,0%) have expected count less than 5. The minimum expected count is ,38.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	4,161	7	,761
Tarone's	4,161	7	,761

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,001	1	,971
Mantel-Haenszel	,002	1	,966

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,994
ln(Estimate)			-,006
Std. Error of ln(Estimate)			,158
Asymp. Sig. (2-sided)			,971
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,730
		Upper Bound	1,354
	ln(Common Odds Ratio)	Lower Bound	-,315
		Upper Bound	,303

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Nodules ***
** affected settlements only **

*** Nodules ***
* stratified by age and sex *

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:13
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	affected sett. (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	715
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY nodule BY agegrp BY sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,04
	Dimensions Requested	4
	Cells Available	80659

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Thyroid nodule * age group * sex	685	95,8%	30	4,2%	715	100,0%

Exposed * Thyroid nodule * age group * sex Crosstabulation

sex	age group				Thyroid nodule		Total
					no nodule	nodule	
male	25-34	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0

	35-44	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	45-54	Exposed	no	Count	15	2	17
				Expected Count	14,6	2,4	17,0
			yes	Count	28	5	33
				Expected Count	28,4	4,6	33,0
		Total		Count	43	7	50
				Expected Count	43,0	7,0	50,0
	55-64	Exposed	no	Count	10	2	12
				Expected Count	10,2	1,8	12,0
			yes	Count	62	11	73
				Expected Count	61,8	11,2	73,0
		Total		Count	72	13	85
				Expected Count	72,0	13,0	85,0
	65-74	Exposed	no	Count	5	0	5
				Expected Count	4,3	,7	5,0
			yes	Count	19	4	23
				Expected Count	19,7	3,3	23,0
		Total		Count	24	4	28
				Expected Count	24,0	4,0	28,0
	75+	Exposed	yes	Count		1	1
				Expected Count		1,0	1,0
		Total		Count		1	1
				Expected Count		1,0	1,0
female	25-34	Exposed	no	Count	17	2	19
				Expected Count	17,0	2,0	19,0
		Total		Count	17	2	19
				Expected Count	17,0	2,0	19,0
	35-44	Exposed	no	Count	37	6	43
				Expected Count	37,1	5,9	43,0
			yes	Count	1	0	1
				Expected Count	,9	,1	1,0
		Total		Count	38	6	44
				Expected Count	38,0	6,0	44,0
	45-54	Exposed	no	Count	60	22	82
				Expected Count	58,4	23,6	82,0
			yes	Count	39	18	57
				Expected	40,6	16,4	57,0

			Count			
	Total		Count	99	40	139
			Expected Count	99,0	40,0	139,0
55-64	Exposed	no	Count	29	14	43
			Expected Count	27,8	15,2	43,0
		yes	Count	119	67	186
			Expected Count	120,2	65,8	186,0
	Total		Count	148	81	229
			Expected Count	148,0	81,0	229,0
65-74	Exposed	no	Count	7	4	11
			Expected Count	6,0	5,0	11,0
		yes	Count	34	30	64
			Expected Count	35,0	29,0	64,0
	Total		Count	41	34	75
			Expected Count	41,0	34,0	75,0
75+	Exposed	yes	Count	4	3	7
			Expected Count	4,0	3,0	7,0
	Total		Count	4	3	7
			Expected Count	4,0	3,0	7,0
15-24	Exposed	no	Count	2		2
			Expected Count	2,0		2,0
	Total		Count	2		2
			Expected Count	2,0		2,0

Chi-Square Tests

sex	age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
male	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	35-44	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	45-54	Pearson Chi-Square	,107(c)	1	,744		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,110	1	,741		
		Fisher's Exact Test				1,000	,554
		Linear-by-Linear Association	,105	1	,746		
		N of Valid	50				

		Cases						
	55-64	Pearson Chi-Square	,020(d)	1	,887			
		Continuity Correction(a)	,000	1	1,000			
		Likelihood Ratio	,020	1	,888			
		Fisher's Exact Test				1,000	,585	
		Linear-by-Linear Association	,020	1	,887			
		N of Valid Cases	85					
	65-74	Pearson Chi-Square	1,014(e)	1	,314			
		Continuity Correction(a)	,091	1	,763			
		Likelihood Ratio	1,713	1	,191			
		Fisher's Exact Test				1,000	,432	
		Linear-by-Linear Association	,978	1	,323			
		N of Valid Cases	28					
	75+	Pearson Chi-Square	.(b)					
		N of Valid Cases	1					
female	25-34	Pearson Chi-Square	.(f)					
		N of Valid Cases	19					
	35-44	Pearson Chi-Square	,162(g)	1	,688			
		Continuity Correction(a)	,000	1	1,000			
		Likelihood Ratio	,297	1	,586			
		Fisher's Exact Test				1,000	,864	
		Linear-by-Linear Association	,158	1	,691			
		N of Valid Cases	44					
	45-54	Pearson Chi-Square	,370(h)	1	,543			
		Continuity Correction(a)	,175	1	,676			
		Likelihood Ratio	,368	1	,544			
		Fisher's Exact Test				,572	,337	
		Linear-by-Linear Association	,367	1	,544			
		N of Valid Cases	139					
	55-64	Pearson Chi-Square	,183(i)	1	,669			
		Continuity Correction(a)	,063	1	,802			
		Likelihood	,185	1	,667			

		Ratio					
		Fisher's Exact Test				,726	,405
		Linear-by-Linear Association	,182	1	,669		
		N of Valid Cases	229				
	65-74	Pearson Chi-Square	,418(j)	1	,518		
		Continuity Correction(a)	,102	1	,750		
		Likelihood Ratio	,425	1	,515		
		Fisher's Exact Test				,745	,378
		Linear-by-Linear Association	,413	1	,520		
		N of Valid Cases	75				
	75+	Pearson Chi-Square	.(f)				
		N of Valid Cases	7				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid Cases	2				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Thyroid nodule are constants.
c 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,38.
d 1 cells (25,0%) have expected count less than 5. The minimum expected count is 1,84.
e 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,71.
f No statistics are computed because Exposed is a constant.
g 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,14.
h 0 cells (,0%) have expected count less than 5. The minimum expected count is 16,40.
i 0 cells (,0%) have expected count less than 5. The minimum expected count is 15,21.
j 1 cells (25,0%) have expected count less than 5. The minimum expected count is 4,99.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	1,332	6	,970
Tarone's	1,332	6	,970

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	1,026	1	,311
Mantel-Haenszel	,807	1	,369

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			1,255
ln(Estimate)			,227
Std. Error of ln(Estimate)			,224
Asymp. Sig. (2-sided)			,311
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,808
		Upper Bound	1,949
	ln(Common Odds Ratio)	Lower Bound	-,213
		Upper Bound	,667

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Nodules ***
** excluding all subjects with thyroid cancer **

*** Nodules ***
* stratified by age and sex *

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:13
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	no thyroid cancer (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1015
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY nodule BY agegrp BY sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,05
	Dimensions Requested	4
	Cells Available	80659

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Thyroid nodule * age group * sex	979	96,5%	36	3,5%	1015	100,0%

Exposed * Thyroid nodule * age group * sex Crosstabulation

	age group				Thyroid nodule		
sex					no nodule	nodule	Total
male	0-14	Exposed	no	Count	9		9
				Expected Count	9,0		9,0
		Total		Count	9		9
				Expected Count	9,0		9,0
	15-24	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	25-34	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	35-44	Exposed	no	Count	6	2	8
				Expected Count	6,0	2,0	8,0
		Total		Count	6	2	8
				Expected Count	6,0	2,0	8,0
	45-54	Exposed	no	Count	28	7	35
				Expected Count	28,8	6,2	35,0
			yes	Count	28	5	33
				Expected Count	27,2	5,8	33,0
		Total		Count	56	12	68
				Expected Count	56,0	12,0	68,0
	55-64	Exposed	no	Count	20	6	26
				Expected Count	21,5	4,5	26,0
			yes	Count	62	11	73
				Expected Count	60,5	12,5	73,0
		Total		Count	82	17	99
				Expected Count	82,0	17,0	99,0
	65-74	Exposed	no	Count	7	1	8
				Expected	6,9	1,1	8,0

				Count			
			yes	Count	17	3	20
				Expected Count	17,1	2,9	20,0
		Total		Count	24	4	28
				Expected Count	24,0	4,0	28,0
	75+	Exposed	no	Count		2	2
				Expected Count		2,0	2,0
			yes	Count		1	1
				Expected Count		1,0	1,0
		Total		Count		3	3
				Expected Count		3,0	3,0
female	0-14	Exposed	no	Count	12	1	13
				Expected Count	12,0	1,0	13,0
		Total		Count	12	1	13
				Expected Count	12,0	1,0	13,0
	15-24	Exposed	no	Count	5		5
				Expected Count	5,0		5,0
		Total		Count	5		5
				Expected Count	5,0		5,0
	25-34	Exposed	no	Count	22	2	24
				Expected Count	22,0	2,0	24,0
		Total		Count	22	2	24
				Expected Count	22,0	2,0	24,0
	35-44	Exposed	no	Count	58	13	71
				Expected Count	58,2	12,8	71,0
			yes	Count	1	0	1
				Expected Count	,8	,2	1,0
		Total		Count	59	13	72
				Expected Count	59,0	13,0	72,0
	45-54	Exposed	no	Count	132	44	176
				Expected Count	128,2	47,8	176,0
			yes	Count	37	19	56
				Expected Count	40,8	15,2	56,0
		Total		Count	169	63	232
				Expected Count	169,0	63,0	232,0
	55-64	Exposed	no	Count	76	52	128
				Expected Count	78,8	49,2	128,0
			yes	Count	116	68	184
				Expected Count	113,2	70,8	184,0

		Total		Count	192	120	312
				Expected Count	192,0	120,0	312,0
	65-74	Exposed	no	Count	15	17	32
				Expected Count	16,0	16,0	32,0
			yes	Count	32	30	62
				Expected Count	31,0	31,0	62,0
		Total		Count	47	47	94
				Expected Count	47,0	47,0	94,0
	75+	Exposed	no	Count	1	0	1
				Expected Count	,7	,3	1,0
			yes	Count	3	2	5
				Expected Count	3,3	1,7	5,0
		Total		Count	4	2	6
				Expected Count	4,0	2,0	6,0

Chi-Square Tests

sex	age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
male	0-14	Pearson Chi-Square	.(b)				
		N of Valid Cases	9				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	35-44	Pearson Chi-Square	.(c)				
		N of Valid Cases	8				
	45-54	Pearson Chi-Square	,275(d)	1	,600		
		Continuity Correction(a)	,042	1	,837		
		Likelihood Ratio	,276	1	,599		
		Fisher's Exact Test				,753	,420
		Linear-by-Linear Association	,271	1	,603		
		N of Valid Cases	68				
	55-64	Pearson Chi-Square	,864(e)	1	,352		
		Continuity Correction(a)	,393	1	,531		
		Likelihood Ratio	,823	1	,364		

		Fisher's Exact Test				,373	,259
		Linear-by-Linear Association	,856	1	,355		
		N of Valid Cases	99				
	65-74	Pearson Chi-Square	,029(f)	1	,864		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,030	1	,863		
		Fisher's Exact Test				1,000	,682
		Linear-by-Linear Association	,028	1	,867		
		N of Valid Cases	28				
	75+	Pearson Chi-Square	.(g)				
		N of Valid Cases	3				
female	0-14	Pearson Chi-Square	.(c)				
		N of Valid Cases	13				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid Cases	5				
	25-34	Pearson Chi-Square	.(c)				
		N of Valid Cases	24				
	35-44	Pearson Chi-Square	,223(h)	1	,636		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,401	1	,526		
		Fisher's Exact Test				1,000	,819
		Linear-by-Linear Association	,220	1	,639		
		N of Valid Cases	72				
	45-54	Pearson Chi-Square	1,712(i)	1	,191		
		Continuity Correction(a)	1,290	1	,256		
		Likelihood Ratio	1,661	1	,198		
		Fisher's Exact Test				,227	,129
		Linear-by-Linear Association	1,705	1	,192		
		N of Valid Cases	232				
	55-64	Pearson Chi-Square	,429(j)	1	,512		
		Continuity Correction(a)	,288	1	,591		

		Likelihood Ratio	,428	1	,513			
		Fisher's Exact Test				,555	,295	
		Linear-by-Linear Association	,428	1	,513			
		N of Valid Cases	312					
	65-74	Pearson Chi-Square	,190(k)	1	,663			
		Continuity Correction(a)	,047	1	,828			
		Likelihood Ratio	,190	1	,663			
		Fisher's Exact Test				,828	,414	
		Linear-by-Linear Association	,187	1	,665			
		N of Valid Cases	94					
	75+	Pearson Chi-Square	,600(l)	1	,439			
		Continuity Correction(a)	,000	1	1,000			
		Likelihood Ratio	,908	1	,341			
		Fisher's Exact Test				1,000	,667	
		Linear-by-Linear Association	,500	1	,480			
		N of Valid Cases	6					

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Thyroid nodule are constants.
c No statistics are computed because Exposed is a constant.
d 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,82.
e 1 cells (25,0%) have expected count less than 5. The minimum expected count is 4,46.
f 2 cells (50,0%) have expected count less than 5. The minimum expected count is 1,14.
g No statistics are computed because Thyroid nodule is a constant.
h 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,18.
i 0 cells (,0%) have expected count less than 5. The minimum expected count is 15,21.
j 0 cells (,0%) have expected count less than 5. The minimum expected count is 49,23.
k 0 cells (,0%) have expected count less than 5. The minimum expected count is 16,00.
l 4 cells (100,0%) have expected count less than 5. The minimum expected count is ,33.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	4,224	7	,754
Tarone's	4,224	7	,754

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,110	1	,740
Mantel-Haenszel	,062	1	,803

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the

number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,948
ln(Estimate)			-,053
Std. Error of ln(Estimate)			,161
Asymp. Sig. (2-sided)			,743
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,692
		Upper Bound	1,301
	ln(Common Odds Ratio)	Lower Bound	-,369
		Upper Bound	,263

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Nodules ***
* affected settlements only *

*** Nodules ***
* stratified by age and sex *

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:13
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	no thycan affsett (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	685
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY nodule BY agegrp BY sex /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:03,92

Dimensions Requested	4
Cells Available	80659

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Thyroid nodule * age group * sex	661	96,5%	24	3,5%	685	100,0%

Exposed * Thyroid nodule * age group * sex Crosstabulation

sex	age group				Thyroid nodule		Total
					no nodule	nodule	
male	25-34	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	35-44	Exposed	no	Count	3		3
				Expected Count	3,0		3,0
		Total		Count	3		3
				Expected Count	3,0		3,0
	45-54	Exposed	no	Count	15	2	17
				Expected Count	14,6	2,4	17,0
			yes	Count	28	5	33
				Expected Count	28,4	4,6	33,0
		Total		Count	43	7	50
				Expected Count	43,0	7,0	50,0
	55-64	Exposed	no	Count	10	2	12
				Expected Count	10,2	1,8	12,0
			yes	Count	62	11	73
				Expected Count	61,8	11,2	73,0
		Total		Count	72	13	85
				Expected Count	72,0	13,0	85,0
	65-74	Exposed	no	Count	5	0	5
				Expected Count	4,4	,6	5,0
			yes	Count	17	3	20
				Expected Count	17,6	2,4	20,0
		Total		Count	22	3	25
				Expected Count	22,0	3,0	25,0

	75+	Exposed	yes	Count		1	1
				Expected Count		1,0	1,0
		Total		Count		1	1
				Expected Count		1,0	1,0
female	25-34	Exposed	no	Count	17	2	19
				Expected Count	17,0	2,0	19,0
		Total		Count	17	2	19
				Expected Count	17,0	2,0	19,0
	35-44	Exposed	no	Count	36	6	42
				Expected Count	36,1	5,9	42,0
			yes	Count	1	0	1
				Expected Count	,9	,1	1,0
		Total		Count	37	6	43
				Expected Count	37,0	6,0	43,0
	45-54	Exposed	no	Count	59	22	81
				Expected Count	57,6	23,4	81,0
			yes	Count	37	17	54
				Expected Count	38,4	15,6	54,0
		Total		Count	96	39	135
				Expected Count	96,0	39,0	135,0
	55-64	Exposed	no	Count	26	14	40
				Expected Count	25,5	14,5	40,0
			yes	Count	114	66	180
				Expected Count	114,5	65,5	180,0
		Total		Count	140	80	220
				Expected Count	140,0	80,0	220,0
	65-74	Exposed	no	Count	5	4	9
				Expected Count	4,6	4,4	9,0
			yes	Count	31	30	61
				Expected Count	31,4	29,6	61,0
		Total		Count	36	34	70
				Expected Count	36,0	34,0	70,0
	75+	Exposed	yes	Count	3	2	5
				Expected Count	3,0	2,0	5,0
		Total		Count	3	2	5
				Expected Count	3,0	2,0	5,0
	15-24	Exposed	no	Count	2		2
				Expected Count	2,0		2,0
		Total		Count	2		2
				Expected	2,0		2,0

		Count			

Chi-Square Tests

sex	age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
male	25-34	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	35-44	Pearson Chi-Square	.(b)				
		N of Valid Cases	3				
	45-54	Pearson Chi-Square	,107(c)	1	,744		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,110	1	,741		
		Fisher's Exact Test				1,000	,554
		Linear-by-Linear Association	,105	1	,746		
		N of Valid Cases	50				
	55-64	Pearson Chi-Square	,020(d)	1	,887		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,020	1	,888		
		Fisher's Exact Test				1,000	,585
		Linear-by-Linear Association	,020	1	,887		
		N of Valid Cases	85				
	65-74	Pearson Chi-Square	,852(e)	1	,356		
		Continuity Correction(a)	,024	1	,878		
		Likelihood Ratio	1,438	1	,230		
		Fisher's Exact Test				1,000	,496
		Linear-by-Linear Association	,818	1	,366		
		N of Valid Cases	25				
	75+	Pearson Chi-Square	.(b)				
		N of Valid Cases	1				
female	25-34	Pearson Chi-Square	.(f)				
		N of Valid Cases	19				
	35-44	Pearson Chi-Square	,166(g)	1	,684		

		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,304	1	,581		
		Fisher's Exact Test				1,000	,860
		Linear-by-Linear Association	,162	1	,687		
		N of Valid Cases	43				
	45-54	Pearson Chi-Square	,294(h)	1	,587		
		Continuity Correction(a)	,122	1	,727		
		Likelihood Ratio	,293	1	,588		
		Fisher's Exact Test				,699	,362
		Linear-by-Linear Association	,292	1	,589		
		N of Valid Cases	135				
	55-64	Pearson Chi-Square	,039(i)	1	,843		
		Continuity Correction(a)	,000	1	,987		
		Likelihood Ratio	,039	1	,843		
		Fisher's Exact Test				1,000	,498
		Linear-by-Linear Association	,039	1	,843		
		N of Valid Cases	220				
	65-74	Pearson Chi-Square	,070(j)	1	,791		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,071	1	,790		
		Fisher's Exact Test				1,000	,537
		Linear-by-Linear Association	,069	1	,792		
		N of Valid Cases	70				
	75+	Pearson Chi-Square	.(f)				
		N of Valid Cases	5				
	15-24	Pearson Chi-Square	.(b)				
		N of Valid Cases	2				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Thyroid nodule are constants.
c 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,38.
d 1 cells (25,0%) have expected count less than 5. The minimum expected count is 1,84.
e 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,60.
f No statistics are computed because Exposed is a constant.
g 2 cells (50,0%) have expected count less than 5. The minimum expected count is ,14.
h 0 cells (,0%) have expected count less than 5. The minimum expected count is 15,60.
i 0 cells (,0%) have expected count less than 5. The minimum expected count is 14,55.

j 2 cells (50,0%) have expected count less than 5. The minimum expected count is 4,37.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	1,132	6	,980
Tarone's	1,132	6	,980

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,461	1	,497
Mantel-Haenszel	,317	1	,573

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			1,168
ln(Estimate)			,156
Std. Error of ln(Estimate)			,229
Asymp. Sig. (2-sided)			,497
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,746
		Upper Bound	1,831
	ln(Common Odds Ratio)	Lower Bound	-,293
		Upper Bound	,605

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Nodules, males only ***

*** Nodules, males only ***
** stratified by age **

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:17
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	males only (FILTER)
	Weight	<none>

	Split File	<none>
	N of Rows in Working Data File	233
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY nodule BY agegrp /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,02
	Dimensions Requested	3
	Cells Available	95325

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Thyroid nodule * age group	224	96,1%	9	3,9%	233	100,0%

Exposed * Thyroid nodule * age group Crosstabulation

age group				Thyroid nodule		
				no nodule	nodule	Total
0-14	Exposed	no	Count	9		9
			Expected Count	9,0		9,0
	Total		Count	9		9
			Expected Count	9,0		9,0
15-24	Exposed	no	Count	3		3
			Expected Count	3,0		3,0
	Total		Count	3		3
			Expected Count	3,0		3,0
25-34	Exposed	no	Count	3		3
			Expected Count	3,0		3,0
	Total		Count	3		3
			Expected Count	3,0		3,0
35-44	Exposed	no	Count	6	2	8
			Expected Count	6,0	2,0	8,0

	Total		Count	6	2	8
			Expected Count	6,0	2,0	8,0
45-54	Exposed	no	Count	28	7	35
			Expected Count	28,8	6,2	35,0
		yes	Count	28	5	33
			Expected Count	27,2	5,8	33,0
	Total		Count	56	12	68
			Expected Count	56,0	12,0	68,0
55-64	Exposed	no	Count	20	6	26
			Expected Count	21,5	4,5	26,0
		yes	Count	62	11	73
			Expected Count	60,5	12,5	73,0
	Total		Count	82	17	99
			Expected Count	82,0	17,0	99,0
65-74	Exposed	no	Count	7	1	8
			Expected Count	6,7	1,3	8,0
		yes	Count	19	4	23
			Expected Count	19,3	3,7	23,0
	Total		Count	26	5	31
			Expected Count	26,0	5,0	31,0
75+	Exposed	no	Count		2	2
			Expected Count		2,0	2,0
		yes	Count		1	1
			Expected Count		1,0	1,0
	Total		Count		3	3
			Expected Count		3,0	3,0

Chi-Square Tests

age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
0-14	Pearson Chi-Square	.(b)				
	N of Valid Cases	9				
15-24	Pearson Chi-Square	.(b)				
	N of Valid Cases	3				
25-34	Pearson Chi-Square	.(b)				
	N of Valid Cases	3				
35-44	Pearson Chi-Square	.(c)				
	N of Valid Cases	8				
45-54	Pearson Chi-Square	,275(d)	1	,600		

		Continuity Correction(a)	,042	1	,837		
		Likelihood Ratio	,276	1	,599		
		Fisher's Exact Test				,753	,420
		Linear-by-Linear Association	,271	1	,603		
		N of Valid Cases	68				
55-64		Pearson Chi-Square	,864(e)	1	,352		
		Continuity Correction(a)	,393	1	,531		
		Likelihood Ratio	,823	1	,364		
		Fisher's Exact Test				,373	,259
		Linear-by-Linear Association	,856	1	,355		
		N of Valid Cases	99				
65-74		Pearson Chi-Square	,105(f)	1	,746		
		Continuity Correction(a)	,000	1	1,000		
		Likelihood Ratio	,110	1	,740		
		Fisher's Exact Test				1,000	,615
		Linear-by-Linear Association	,102	1	,750		
		N of Valid Cases	31				
75+		Pearson Chi-Square	.(g)				
		N of Valid Cases	3				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Thyroid nodule are constants.
c No statistics are computed because Exposed is a constant.
d 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,82.
e 1 cells (25,0%) have expected count less than 5. The minimum expected count is 4,46.
f 2 cells (50,0%) have expected count less than 5. The minimum expected count is 1,29.
g No statistics are computed because Thyroid nodule is a constant.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,484	2	,785
Tarone's	,484	2	,785

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,713	1	,398
Mantel-Haenszel	,404	1	,525

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			,715
ln(Estimate)			-,336
Std. Error of ln(Estimate)			,399
Asymp. Sig. (2-sided)			,400
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,327
		Upper Bound	1,562
	ln(Common Odds Ratio)	Lower Bound	-1,118
		Upper Bound	,446

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Nodules, males only ***
** Affected settlements only ***

*** Nodules, males only ***
** stratified by age **

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:17
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	males affected sett. (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	177
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY nodule BY agegrp /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,03
	Dimensions Requested	3
	Cells Available	95325

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Thyroid nodule * age group	170	96,0%	7	4,0%	177	100,0%

Exposed * Thyroid nodule * age group Crosstabulation

age group				Thyroid nodule		Total
				no nodule	nodule	
25-34	Exposed	no	Count	3		3
			Expected Count	3,0		3,0
	Total		Count	3		3
			Expected Count	3,0		3,0
35-44	Exposed	no	Count	3		3
			Expected Count	3,0		3,0
	Total		Count	3		3
			Expected Count	3,0		3,0
45-54	Exposed	no	Count	15	2	17
			Expected Count	14,6	2,4	17,0
		yes	Count	28	5	33
			Expected Count	28,4	4,6	33,0
	Total		Count	43	7	50
			Expected Count	43,0	7,0	50,0
55-64	Exposed	no	Count	10	2	12
			Expected Count	10,2	1,8	12,0
		yes	Count	62	11	73
			Expected Count	61,8	11,2	73,0
	Total		Count	72	13	85
			Expected Count	72,0	13,0	85,0
65-74	Exposed	no	Count	5	0	5
			Expected Count	4,3	,7	5,0
		yes	Count	19	4	23
			Expected Count	19,7	3,3	23,0
	Total		Count	24	4	28
			Expected Count	24,0	4,0	28,0
75+	Exposed	yes	Count		1	1
			Expected Count		1,0	1,0
	Total		Count		1	1

	Expected Count		1,0	1,0

Chi-Square Tests

age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
25-34	Pearson Chi-Square	.(b)				
	N of Valid Cases	3				
35-44	Pearson Chi-Square	.(b)				
	N of Valid Cases	3				
45-54	Pearson Chi-Square	,107(c)	1	,744		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,110	1	,741		
	Fisher's Exact Test				1,000	,554
	Linear-by-Linear Association	,105	1	,746		
	N of Valid Cases	50				
55-64	Pearson Chi-Square	,020(d)	1	,887		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,020	1	,888		
	Fisher's Exact Test				1,000	,585
	Linear-by-Linear Association	,020	1	,887		
	N of Valid Cases	85				
65-74	Pearson Chi-Square	1,014(e)	1	,314		
	Continuity Correction(a)	,091	1	,763		
	Likelihood Ratio	1,713	1	,191		
	Fisher's Exact Test				1,000	,432
	Linear-by-Linear Association	,978	1	,323		
	N of Valid Cases	28				
75+	Pearson Chi-Square	.(b)				
	N of Valid Cases	1				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Thyroid nodule are constants.
c 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,38.
d 1 cells (25,0%) have expected count less than 5. The minimum expected count is 1,84.
e 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,71.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	1,018	2	,601

Tarone's	1,018	2	,601

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,271	1	,603
Mantel-Haenszel	,057	1	,812

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			1,360
ln(Estimate)			,308
Std. Error of ln(Estimate)			,596
Asymp. Sig. (2-sided)			,605
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,423
		Upper Bound	4,373
	ln(Common Odds Ratio)	Lower Bound	-,860
		Upper Bound	1,475

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.

*** Nodules, males only ***
** Affected settlements only, no thycan **

*** Nodules, males only ***
** stratified by age **

Crosstabs

Notes

Output Created		12-MAR-2017 17:58:20
Comments		
Input	Data	D:\begro\Documents\Artikel\2015\05_KAZ-SD-RERF\Data\Analysis\nodoubles(complete)\nodoubles(complete)v2.sav
	Filter	males no thycan affsett (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	172
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.

	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=exp2 BY nodule BY agegrp /FORMAT= AVALUE TABLES /STATISTIC=CHISQ CMH(1) /CELLS= COUNT EXPECTED /COUNT ROUND CELL .
Resources	Elapsed Time	0:00:00,02
	Dimensions Requested	3
	Cells Available	95325

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Exposed * Thyroid nodule * age group	167	97,1%	5	2,9%	172	100,0%

Exposed * Thyroid nodule * age group Crosstabulation

age group				Thyroid nodule		
				no nodule	nodule	Total
25-34	Exposed	no	Count	3		3
			Expected Count	3,0		3,0
	Total		Count	3		3
			Expected Count	3,0		3,0
35-44	Exposed	no	Count	3		3
			Expected Count	3,0		3,0
	Total		Count	3		3
			Expected Count	3,0		3,0
45-54	Exposed	no	Count	15	2	17
			Expected Count	14,6	2,4	17,0
		yes	Count	28	5	33
			Expected Count	28,4	4,6	33,0
	Total		Count	43	7	50
			Expected Count	43,0	7,0	50,0
55-64	Exposed	no	Count	10	2	12
			Expected Count	10,2	1,8	12,0
		yes	Count	62	11	73
			Expected Count	61,8	11,2	73,0

	Total		Count	72	13	85
			Expected Count	72,0	13,0	85,0
65-74	Exposed	no	Count	5	0	5
			Expected Count	4,4	,6	5,0
		yes	Count	17	3	20
			Expected Count	17,6	2,4	20,0
	Total		Count	22	3	25
			Expected Count	22,0	3,0	25,0
75+	Exposed	yes	Count		1	1
			Expected Count		1,0	1,0
	Total		Count		1	1
			Expected Count		1,0	1,0

Chi-Square Tests

age group		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
25-34	Pearson Chi-Square	.(b)				
	N of Valid Cases	3				
35-44	Pearson Chi-Square	.(b)				
	N of Valid Cases	3				
45-54	Pearson Chi-Square	,107(c)	1	,744		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,110	1	,741		
	Fisher's Exact Test				1,000	,554
	Linear-by-Linear Association	,105	1	,746		
	N of Valid Cases	50				
55-64	Pearson Chi-Square	,020(d)	1	,887		
	Continuity Correction(a)	,000	1	1,000		
	Likelihood Ratio	,020	1	,888		
	Fisher's Exact Test				1,000	,585
	Linear-by-Linear Association	,020	1	,887		
	N of Valid Cases	85				
65-74	Pearson Chi-Square	,852(e)	1	,356		
	Continuity Correction(a)	,024	1	,878		
	Likelihood Ratio	1,438	1	,230		
	Fisher's Exact Test				1,000	,496
	Linear-by-Linear Association	,818	1	,366		

	N of Valid Cases	25				
75+	Pearson Chi-Square	.(b)				
	N of Valid Cases	1				

a Computed only for a 2x2 table
b No statistics are computed because Exposed and Thyroid nodule are constants.
c 2 cells (50,0%) have expected count less than 5. The minimum expected count is 2,38.
d 1 cells (25,0%) have expected count less than 5. The minimum expected count is 1,84.
e 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,60.

Tests of Homogeneity of the Odds Ratio

	Chi-Squared	df	Asymp. Sig. (2-sided)
Breslow-Day	,878	2	,645
Tarone's	,878	2	,645

Tests of Conditional Independence

	Chi-Squared	df	Asymp. Sig. (2-sided)
Cochran's	,214	1	,644
Mantel-Haenszel	,031	1	,859

Under the conditional independence assumption, Cochran's statistic is asymptotically distributed as a 1 df chi-squared distribution, only if the number of strata is fixed, while the Mantel-Haenszel statistic is always asymptotically distributed as a 1 df chi-squared distribution. Note that the continuity correction is removed from the Mantel-Haenszel statistic when the sum of the differences between the observed and the expected is 0.

Mantel-Haenszel Common Odds Ratio Estimate

Estimate			1,316
ln(Estimate)			,275
Std. Error of ln(Estimate)			,598
Asymp. Sig. (2-sided)			,646
Asymp. 95% Confidence Interval	Common Odds Ratio	Lower Bound	,407
		Upper Bound	4,252
	ln(Common Odds Ratio)	Lower Bound	-,898
		Upper Bound	1,447

The Mantel-Haenszel common odds ratio estimate is asymptotically normally distributed under the common odds ratio of 1,000 assumption. So is the natural log of the estimate.