

Malignant neoplasms in persons with HBV, HCV or HBV/HCV infection, observed numbers of incident* cancers, SIRs and 95% confidence intervals in NSW 1990-2002.

| Cancertype | | HBV | | | | Viralhepatitis HCV | | | |
|----------------|------------------------------|-----|------|-------|--------|--------------------|------|-------|--------|
| Code | Description | O | SIR | 95%CI | | O | SIR | 95%CI | |
| C | All | 397 | 0.7 | 0.7 | - 0.8 | 682 | 0.9 | 0.8 | - 0.9 |
| C00 | Lip | 1 | 0.2 | 0.0 | - 1.3 | 12 | 1.2 | 0.7 | - 2.1 |
| C01 | Tongue | 2 | 0.6 | 0.2 | - 2.6 | 6 | 1.3 | 0.6 | - 2.8 |
| C03-6 | Mouth | 0 | | | | 7 | 1.8 | 0.9 | - 3.8 |
| C09 | Tonsil | 0 | | | | 6 | 2.5 | 1.1 | - 5.5 |
| C11 | Nasopharynx | 5 | 3.7 | 1.5 | - 8.8 | 1 | 0.4 | 0.1 | - 2.7 |
| C15 | Oesophagus | 2 | 0.4 | 0.1 | - 1.8 | 4 | 0.6 | 0.2 | - 1.7 |
| C16 | Stomach | 11 | 1.2 | 0.7 | - 2.2 | 23 | 1.7 | 1.1 | - 2.5 |
| C18 | Colon | 15 | 0.4 | 0.3 | - 0.7 | 37 | 0.8 | 0.5 | - 1.0 |
| C19-20 | Rectum | 14 | 0.7 | 0.4 | - 1.1 | 11 | 0.4 | 0.2 | - 0.7 |
| C21 | Anus | 4 | 2.3 | 0.9 | - 6.1 | 4 | 1.4 | 0.5 | - 3.8 |
| C22 | Liver | 127 | 29.5 | 24.8 | - 35.1 | 148 | 22.2 | 18.9 | - 26.0 |
| C23-24 | Gallbladder | 1 | 0.4 | 0.1 | - 3.1 | 2 | 0.6 | 0.1 | - 2.3 |
| C25 | Pancreas | 6 | 0.8 | 0.4 | - 1.8 | 17 | 1.6 | 1.0 | - 2.6 |
| C30-31 | Nasal | 1 | 1.1 | 0.2 | - 8.2 | 1 | 0.7 | 0.1 | - 4.8 |
| C32 | Larynx | 4 | 1.1 | 0.4 | - 3.0 | 5 | 1.1 | 0.5 | - 2.7 |
| C33-34 | Trachea | 41 | 1.1 | 0.8 | - 1.5 | 68 | 1.4 | 1.1 | - 1.8 |
| C43 | Melanoma | 10 | 0.1 | 0.1 | - 0.3 | 53 | 0.5 | 0.4 | - 0.6 |
| C45 | Mesothelioma | 0 | | | | 3 | 1.0 | 0.3 | - 3.1 |
| C46 | Kaposi's sarcoma | 7 | 4.7 | 2.2 | - 9.8 | 7 | 2.1 | 1.0 | - 4.3 |
| C47-49 | Conective and soft tissue | 1 | 0.3 | 0.0 | - 1.9 | 3 | 0.5 | 0.2 | - 1.5 |
| C50 | Breast | 41 | 0.6 | 0.4 | - 0.7 | 50 | 0.5 | 0.3 | - 0.6 |
| C51 | Vulva | 0 | | | | 1 | 0.7 | 0.1 | - 4.7 |
| C53 | Cervixuteri | 3 | 0.4 | 0.1 | - 1.3 | 16 | 1.4 | 0.9 | - 2.3 |
| C54 | Corpusuteri | 3 | 0.5 | 0.2 | - 1.6 | 5 | 0.6 | 0.3 | - 1.5 |
| C56 | Ovary | 2 | 0.3 | 0.1 | - 1.3 | 3 | 0.4 | 0.1 | - 1.1 |
| C61 | Prostate | 25 | 0.5 | 0.3 | - 0.7 | 32 | 0.5 | 0.4 | - 0.7 |
| C62 | Testis | 4 | 0.5 | 0.2 | - 1.3 | 15 | 0.7 | 0.4 | - 1.2 |
| C64 | Kidney | 7 | 0.6 | 0.3 | - 1.3 | 18 | 1.0 | 0.7 | - 1.7 |
| C65 | Renal | 0 | | | | 1 | 0.6 | 0.1 | - 4.0 |
| C67 | Bladder | 4 | 0.4 | 0.2 | - 1.1 | 11 | 0.8 | 0.5 | - 1.5 |
| C70-72 | Brain CNS | 4 | 0.4 | 0.2 | - 1.2 | 12 | 0.8 | 0.5 | - 1.4 |
| C73 | Thyroid | 9 | 0.7 | 0.4 | - 1.4 | 9 | 0.4 | 0.2 | - 0.8 |
| C75 | Endocrine | 0 | | | | 0 | | | |
| C81 | Hodgkin | 4 | 1.0 | 0.4 | - 2.6 | 4 | 0.5 | 0.2 | - 1.4 |
| C82-85,96 | NHL | 27 | 1.4 | 1.0 | - 2.0 | 44 | 1.0 | 0.7 | - 1.5 |
| C82 | Follicular NHL | 8 | 1.6 | 0.8 | - 3.3 | 6 | 0.8 | 0.3 | - 1.7 |
| C83 | Diffuse NHL | 10 | 1.2 | 0.6 | - 2.1 | 19 | 1.3 | 0.9 | - 2.1 |
| C84 | T-cellymphoma | 2 | 2.1 | 0.5 | - 8.2 | 2 | 1.2 | 0.3 | - 5.0 |
| C85 | Other NHL | 7 | 1.5 | 0.7 | - 3.1 | 6 | 0.8 | 0.4 | - 1.8 |
| C88 | Immunoproliferative diseases | 0 | | | | 3 | 6.6 | 2.1 | - 20.3 |
| C90 | Multiplemyeloma | 4 | 0.8 | 0.3 | - 2.1 | 7 | 1.0 | 0.5 | - 2.0 |
| C91 | Lymphoidleukaemia | 2 | 0.4 | 0.1 | - 1.6 | 9 | 1.1 | 0.6 | - 2.2 |
| C92-94 | Otherleukaemia | 3 | 0.4 | 0.1 | - 1.3 | 8 | 0.7 | 0.3 | - 1.4 |
| C95 | Leukaemia unspecified | 0 | | | | 2 | 2.2 | 0.6 | - 8.9 |
| C96 | Other lymphoid | 0 | | | | 0 | | | |
| C76-80,C26,C39 | Unknown primary site | 16 | 1.0 | 0.6 | - 1.7 | 40 | 1.7 | 1.3 | - 2.3 |

*Excludes cancers prior to, or within one year subsequent from, hepatitis B and or C notification and person time at risk commences from one year following HBV and HCV diagnosis.

ICD- International classification of diseases

O – observed number of cases

SIR-Standardised incidence ratio

CI - Confidence interval, 95% confidence intervals do not take into account the number of evaluations.

NHL- Non-Hodgkin Lymphoma
HBV-hepatitis B virus infection
HCV- hepatitis C virus infection

Hepatocellular carcinoma (ICD10 C22.0) in persons with HBV, HCV or HBV/HCV infection, observed and expected numbers of incident cancers*, rates, and SIRs and 95% confidence intervals by sex in NSW 1990-2002.

| Viral hepatitis notification | | Rate/10000py | Observed | Expected | SIR | 95% CI |
|-------------------------------------|--------|---------------------|-----------------|-----------------|------------|---------------|
| HBV | All | 7.96 | 124 | 3.5 | 36.0 | 30.2 - 42.9 |
| | Male | 12.76 | 105 | 2.9 | 36.0 | 29.7 - 43.5 |
| | Female | 2.59 | 19 | 0.5 | 36.0 | 23.0 - 56.5 |
| HCV | All | 5.03 | 143 | 5.4 | 26.5 | 22.5 - 31.3 |
| | Male | 5.75 | 101 | 4.6 | 22.1 | 18.2 - 26.8 |
| | Female | 3.86 | 42 | 0.8 | 51.9 | 38.3 - 70.2 |
| Co-infected | All | 7.58 | 6 | 0.2 | 37.7 | 17.0 - 84.0 |
| | Male | 8.44 | 5 | 0.2 | 34.1 | 14.2 - 81.9 |
| | Female | 5.01 | 1 | 0.0 | 80.8 | 11.4 - 573.3 |

Causes of death among people diagnosed with HBV, HCV or HBV/HCV infection, observed numbers and standardised mortality ratios, in NSW 1990-2002, risk commencing six months after date of HBV or HCV diagnosis

| ICD-10 Code | Cause of death Description | HBV | | | Viral hepatitis notification HCV | | | D |
|-------------|--------------------------------|-----|------|------------|-------------------------------------|------|-------------|----|
| | | D | SMR | 95% CI | D | SMR | 95% CI | |
| | All cause | 896 | 1.6 | 1.5 - 1.7 | 3342 | 3.4 | 3.3 - 3.5 | 15 |
| A00-B99 | Infection | 118 | 11.0 | 9.2 - 13.2 | 270 | 12.4 | 11.0 - 14.0 | 21 |
| C00-D48 | Neoplasms | 326 | 1.8 | 1.6 - 2.0 | 518 | 1.9 | 1.8 - 2.1 | 24 |
| D50-D89 | Blood/Immune | 6 | 10.6 | 4.8 - 23.6 | 17 | 17.5 | 10.9 - 28.2 | 0 |
| E00-E90 | Endocrine | 41 | 2.6 | 1.9 - 3.5 | 88 | 3.3 | 2.7 - 4.1 | 2 |
| F00-F99 | MentalandBehavioural | 24 | 1.5 | 1.0 - 2.2 | 590 | 16.7 | 15.4 - 18.1 | 26 |
| G00-G99 | NervousSystem | 11 | 0.7 | 0.4 - 1.3 | 49 | 1.8 | 1.3 - 2.3 | 0 |
| I00-I99 | CirculatorySystem | 149 | 0.8 | 0.7 - 1.0 | 450 | 1.4 | 1.3 - 1.6 | 19 |
| J00-J99 | RespiratorySystem | 27 | 0.7 | 0.5 - 1.0 | 84 | 1.3 | 1.0 - 1.6 | 2 |
| K00-K-93 | DigestiveSystem | 40 | 2.0 | 1.4 - 2.7 | 221 | 6.5 | 5.7 - 7.4 | 12 |
| L00-L99 | Skin | 0 | | | 3 | 1.9 | 0.6 - 5.8 | 0 |
| M00-M99 | Musculoskeletal | 4 | 1.5 | 0.6 - 3.9 | 13 | 2.8 | 1.6 - 4.9 | 0 |
| N00-N99 | Genitourinary | 17 | 2.3 | 1.4 - 3.6 | 41 | 2.9 | 2.2 - 4.0 | 3 |
| O00-Q99 | Pregnancy/Perinatal/congenital | 6 | 2.1 | 1.0 - 4.8 | 10 | 1.8 | 1.0 - 3.4 | 0 |
| R00-R99** | Other | 4 | 2.2 | 0.8 - 5.9 | 38 | 10.5 | 7.6 - 14.4 | 1 |
| V00-Y98 | External | 123 | 1.7 | 1.4 - 2.0 | 950 | 6.2 | 5.8 - 6.6 | 40 |

Causes of death among people diagnosed with HBV, HCV or HBV/HCV infection, observed numbers and standardised mortality ratios, in NSW 1990-2002, risk commencing six months after date of HBV or HCV diagnosis,.

| ICD-10 Code | Cause of death Description | Viral hepatitis notification | | | | | | | | |
|----------------------|-------------------------------|------------------------------|------|--------|--------|-----|------|--------|--------|----|
| | | HBV | | | HCV | | | | | |
| | | D | SMR | 95% CI | | D | SMR | 95% CI | | D |
| | All liver related | 227 | 13.2 | 11.6 | - 15.1 | 503 | 18.3 | 16.7 | - 19.9 | 31 |
| B15-B19 [†] | Vira hepatitis | 34 | 41.8 | 29.9 | - 58.5 | 90 | 56.5 | 45.9 | - 69.4 | 6 |
| B942 [†] | Sequelae of vira hepatitis | 31 | 36.1 | 25.4 | - 51.3 | 110 | 60.5 | 50.2 | - 72.9 | 8 |
| C22 [†] | Liver cancer | 131 | 30.0 | 25.3 | - 35.6 | 117 | 18.1 | 15.1 | - 21.7 | 8 |
| K70 [†] | Alcoholic liver disease | 16 | 2.3 | 1.4 | - 3.7 | 96 | 8.6 | 7.0 | - 10.5 | 4 |
| K71-K77 [†] | Non-alcoholic liver disease | 15 | 3.7 | 2.2 | - 6.1 | 90 | 13.8 | 11.3 | - 17.0 | 5 |
| B20-B24 | HIV | 35 | 10.0 | 7.2 | - 14.0 | 49 | 5.7 | 4.3 | - 7.6 | 6 |
| C81-C96 | Lymphoid | 35 | 1.9 | 1.3 | - 2.6 | 62 | 2.1 | 1.7 | - 2.7 | 2 |
| ABS | Drug induced | 31 | 1.5 | 1.1 | - 2.2 | 989 | 21.5 | 20.2 | - 22.9 | 41 |

O= observed incident deaths

SMR=standardised mortality ratio, adjusted for age, sex and calendar year

CI= confidence interval

D and SMR calculated only including hepatitis cases where information about age at diagnosis and sex were available.

ABS= Australian Bureau of Statistics definition of drug induced deaths, includes ICD 10 codes of: F11-F16, F19, F55, X40-X44, X60-X64,

X85, Y10-Y14 and corresponding ICD9 codes

* For deaths prior to 1997, corresponding ICD9 codes were used

[†] Comprise "All liver related"

**Other includes deaths with no cause specified