Indicator Definitions

Pneumonia In-hospital Mortality

Indicator ID	C004-1
Indicator Name	Pneumonia In-hospital Mortality
Version Release	V1 - 2008/09
Brief Definition	In-hospital deaths of Pneumonia patients
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Pneumonia patients	**Principal Diagnosis Code** J13 (Pneumonia due to Streptococcus pneumoniae); J14 (Pneumonia due to Haemophilus influenzae); J15 (Bacterial pneumonia; not elsewhere classified); J16 (Pneumonia due to other infectious organisms; not elsewhere classified); J18 (Pneumonia; organism unspecified) **Care Type (Type of Episode)** Acute patients (CareType = 01) **Overnight stay patients** Patients must have spent at least one night in hospital (end_date > AdmitDate) **Age of Patient** 20 – 89 years (AgeGroup >= 05 and AgeGroup <= 18) **Length of Stay** 1 - 30 patient days (LOS >= 1 and LOS <= 30) **Source of Referral/Transfer (Admission Source)** Excludes transfers in (AdmitCode <> 24) **Mode of separation (Discharge Status)** Excludes transfers out (SeparationCode <> 16)
Outcome (numerator) - In-hospital mortality	Pneumonia patients who Died in-hospital (SeparationCode = 05) and had a length of stay less than or equal to 30 days (LOS <=30)
Risk Adjustment Criteria	Age Group, Septicaemia, Malignancy, Dementia (inc. Alzheimers Disease), Parkinsons Disease, Dysrhythmias, Heart Failure, Hypotension and Shock, Cerebrovascular Disease, Other Chronic Obstructive Pulmonary Disease, Liver Disease, Ulcer of lower limb or decubitus ulcer, Renal Failure

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Septicaemia	A40-A41
Malignancy	C00-C97
Dementia (inc. Alzheimers Disease)	F00-F03; G30-G311
Parkinsons Disease	G20
Dysrhythmias	I46-I49
Heart Failure	I50
Hypotension and Shock	I95; R57
Cerebrovascular Disease	I60-I69
Other Chronic Obstructive Pulmonary Disease	J40-J44; J47
Liver Disease	K70-K77
Ulcer of lower limb or decubitus ulcer	L89; L97
Renal Failure	N17; N18.3; N18.4; N18.5; N18.9; N19; R34

Colorectal Carcinoma Complications of Surgery

Indicator ID	C053-2
Indicator Name	Colorectal Carcinoma Complications of Surgery
Version Release	V1 - 2008/09
Brief Definition	Colorectal Carcinoma patients who had a complication of surgery at any time in the whole admission
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Colorectal Carcinoma patients	**Principal Diagnosis Code** Principal diagnosis code of C18 (Malignant neoplasm of colon); C19 (Malignant neoplasm of rectosigmoid junction); C20 (Malignant neoplasm of rectum); C21.8(Overlapping lesion of rectum anus and anal canal) with at least one of the following procedure codes: 32000-00 (Limited excision of large intestine with formation of stoma); 32000-01 (Right hemicolectomy with formation of stoma); 32003-00 (Limited excision of large intestine with anastomosis); 32003-01 (Right hemicolectomy with anastomosis); 32004-00 (Subtotal colectomy with formation of stoma); 32005-00 (Subtotal colectomy with anastomosis); 32006-00 (Left hemicolectomy with anastomosis); 32006-01 (Left hemicolectomy with formation of stoma); 32012-00 (Total colectomy with ileorectal anastomosis); 32015-00 (Total proctocolectomy with ileostomy); 32024-00 (High anterior resection of rectum); 32025-00 (Low anterior resection of rectum); 32026-00 (Ultra low anterior resection of rectum); 32028-00 (Ultra low restorative anterior resection of rectum with hand sutured coloanal anastomosis); 32030-00 (Rectosigmoidectomy with formation of stoma); 32033-00 (Restoration of bowel continuity after Hartmanns procedure); 32039-00 (Abdominoperineal proctectomy); 32051-00 (Total proctocolectomy with ileo-anal anastomosis); 32051-01 (Total proctocolectomy with ileo-anal anastomosis and formation of temporary ileostomy) **[The following procedure codes are added from July 2013 due to changes in the ICD Edition]** 30515-03 (Ileocolic resection with anastomosis); 30515-04 (Lap. ileocolic resection with anastomosis); 30515-05 (Ileocolic resection with formation of stoma); 30515-06 (Laparoscopic ileocolic resection with formation of stoma); 32000-02 (Laparoscopic limited excision of large intestine with formation of stoma); 32000-03 (Lap. right hemicolectomy with formation of stoma); 32003-02 (Laparoscopic limited excision of large intestine with anastomosis); 32003-03 (Lap. right hemicolectomy with anastomosis); 32004-01 (Extended right hemicolectomy with formation of stoma); 32004-02 (Lap. subtotal colectomy with formation of stoma); 32004-03 (Lap. extended right hemicolectomy with formation of stoma); 32005-02 (Lap. subtotal colectomy with anastomosis); 32006-02 (Lap. left hemicolectomy with anastomosis); 32006-03 (Lap. left hemicolectomy with formation of stoma); 32012-01 (Lap. total colectomy with ileorectal anastomosis) **Overnight stay patients** Patients must have spent at least one night in hospital (end_date > AdmitDate) **Age of Patient** 20 years or older (AgeGroup >= 05) **Length of Stay** At least 4 patient days (LOS >= 4); unless the patient had a length of stay from 1 - 3 patient days and died in hospital (LOS >= 1 and LOS <= 3 and SeparationCode = 05) **Source of Referral/Transfer (Admission Source)** Excludes transfers in (AdmitCode <> 24) **Mode of separation (Discharge Status)** Excludes transfers out (SeparationCode <> 16) **Care Type (Type of Episode)** Acute patients (CareType = 01)
Outcome (numerator) - Complications	Colorectal Carcinoma patients with an external cause code between Y60-Y6999 or Y83-Y8499 for any episode of care within the entire hospital stay
Risk Adjustment Criteria	Age Group, Septicaemia, Anaemia, Diseases of the circulatory system, Dysrhythmias, Acute LRTI and Influenza, Intestinal disorders, Peritoneal Adhesions, Renal disease, Other urinary symptoms

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Septicaemia	A40-A41
Anaemia	D50-D64
Diseases of the circulatory system	I00-I99
Dysrhythmias	I46-I49
Acute LRTI and Influenza	J9-J22
Intestinal disorders	K21; K52-K59
Peritoneal Adhesions	K660
Renal disease	N00-N39
Other urinary symptoms	R30-R39

Prostatectomy Complications of Surgery

Indicator ID	C056-2
Indicator Name	Prostatectomy Complications of Surgery
Version Release	V1 - 2008/09
Brief Definition	Prostatectomy patients who had a complication of surgery
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Prostatectomy patients	**Principal Diagnosis Code** Before July 2015, any diagnosis code with procedure code of 37203-00 (Transurethral resection of prostate [TURP]). From July 2015 to June 2017, any diagnosis code with at least one of the following procedure codes: 37203-00 (Transurethral resection of prostate [TURP]), 37207-00 (Endoscopic laser ablation of prostate [includes TULIP]) and 37207-01 (Endoscopic laser excision of prostate). From July 2017, any diagnosis code with at least one of the following procedure codes: 37224-00 (Endoscopic destruction procedures on prostate), 37224-03 (Endoscopic resection of prostate). **Care Type (Type of Episode)** Acute patients (CareType = 01) **Length of Stay** 0 - 30 patient days (LOS >= 0 and LOS <= 30) **Age of Patient** 20 years or older (AgeGroup >= 05) **Source of Referral/Transfer (Admission Source)** Excludes transfers in (AdmitCode <> 24) **Mode of separation (Discharge Status)** Excludes transfers out (SeparationCode <> 16) **Sex of Patient** Male (sex = 1)
Outcome (numerator) - Complications	Prostatectomy patients with an external cause code was between Y60-Y6999 or Y83-Y8499.
Risk Adjustment Criteria	Anaemia, Diseases of the circulatory system, Dysrhythmias, Urinary Tract Infection (site not specified), Other urinary symptoms

Risk Adjustment Comorbidity	ICD Codes
Anaemia	D50-D64
Diseases of the circulatory system	I00-I99
Dysrhythmias	I46-I49
Urinary Tract Infection (site not specified)	N390; T835
Other urinary symptoms	R30-R39

Abdominal Hysterectomy Complications of Surgery

Indicator ID	C103-2
Indicator Name	Abdominal Hysterectomy Complications of Surgery
Version Release	V1 - 2008/09
Brief Definition	Abdominal Hysterectomy patients who had a complication of surgery
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Abdominal Hysterectomy patients	**Principal Diagnosis Code** After 1st of July 2019, any principal diagnosis code with at least one of the following procedure codes: 35653-00 (Subtotal abdominal hysterectomy); 35653-01 (Total abdominal hysterectomy); 35653-05 (Laparoscopic subtotal abdominal hysterectomy); 35653-07 (Laparoscopic total abdominal hysterectomy); 35667-00 (Radical abdominal hysterectomy); 35667-02 (Laparoscopic radical abdominal hysterectomy). Before 30th June 2019, any principal diagnosis code with at least one of the following procedure codes: 35653-00 (Subtotal abdominal hysterectomy); 35653-01 (Total abdominal hysterectomy); 35653-04 (Total abdominal hysterectomy with removal of adnexa); 35661-00 (Abdominal hysterectomy with extensive retroperitoneal dissection); 35667-00 (Radical abdominal hysterectomy); 90448-00 (Subtotal laparoscopic abdominal hysterectomy); 90448-01 (Total laparoscopic abdominal hysterectomy); 90448-02 (Total laparoscopic abdominal hysterectomy with removal of adnexa) **Care Type (Type of Episode)** Acute patients (CareType = 01) **Overnight stay patients** Patients must have spent at least one night in hospital (end_date > AdmitDate) **Age of Patient** 20 – 89 years (AgeGroup >= 05 and AgeGroup <= 18) **Length of Stay** 1 - 30 patient days (LOS >= 1 and LOS <= 30) **Source of Referral/Transfer (Admission Source)** Excludes transfers in (AdmitCode <> 24) **Mode of separation (Discharge Status)** Excludes transfers out (SeparationCode <> 16) **Medical conditions** Exclude any condition code (principal diagnosis or other diagnosis) of malignant neoplasm of female genital organs or pelvic area (C18-C21; C48; C51-C58; C64-C68; C76.3; C77.5; C78.6; C79.6; C79.82) **Procedure Codes** After 1st of July 2019, exclude hysterectomies involving 96245-05 (Radical excision lymphatic structure, pelvic). Before 30th June 2019, exclude hysterectomies involving 35664-00 (Radical abdominal hysterectomy with radical excision of pelvic lymph nodes) or 35670-00 (Abdominal hysterectomy with radical excision of pelvic lymph nodes) **Major Diagnostic Category** Exclude MDC 14 (pregnancy; childbirth and puerperium) and exclude MDC 15 (newborns and other neonates)
Outcome (numerator) - Complications	Abdominal Hysterectomy patients with an external cause code was between Y60-Y6999 or Y83-Y8499.
Risk Adjustment Criteria	Anaemia, Diseases of the circulatory system, Intestinal disorders, Hypertension, Other urinary symptoms, Peritoneal Adhesions, Urinary Tract Infection (site not specified)

Risk Adjustment Comorbidity	ICD Codes
Anaemia	D50-D64
Diseases of the circulatory system	I00-I99
Intestinal disorders	K21; K52-K59
Hypertension	I10-I15
Other urinary symptoms	R30-R39
Peritoneal Adhesions	K660
Urinary Tract Infection (site not specified)	N390; T835

Vaginal Hysterectomy Complications of Surgery

Indicator ID	C104-2
Indicator Name	Vaginal Hysterectomy Complications of Surgery
Version Release	V1 - 2008/09
Brief Definition	Vaginal Hysterectomy patients who had a complication of surgery
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Vaginal Hysterectomy patients	**Principal Diagnosis Code** After 1st of July 2019, any principal diagnosis code with at least one of the following procedure codes: 35657-00 (Vaginal hysterectomy); 35667-01 (Radical vaginal hysterectomy); 35750-00 (Laparoscopically assisted Vaginal hysterectomy); 35667-03 (Laparoscopically assisted radical vaginal hysterectomy). Before 30th June 2019, any principal diagnosis code with at least one of the following procedure codes: 35657-00 (Vaginal hysterectomy); 35667-01 (Radical vaginal hysterectomy); 35673-02 (Vaginal hysterectomy with removal of adnexa); 35750-00 (Laparoscopically assisted vaginal hysterectomy); 35753-02 (Laparoscopically assisted vaginal hysterectomy with removal of adnexa) **Care Type (Type of Episode)** Acute patients (CareType = 01) **Overnight stay patients** Patients must have spent at least one night in hospital (end_date > AdmitDate) **Age of Patient** 20 – 89 years (AgeGroup >= 05 and AgeGroup <= 18) **Length of Stay** 1 - 30 patient days (LOS >= 1 and LOS <= 30) **Source of Referral/Transfer (Admission Source)** Excludes transfers in (AdmitCode <> 24) **Mode of separation (Discharge Status)** Excludes transfers out (SeparationCode <> 16) **Medical conditions** Exclude any condition code (principal diagnosis or other diagnosis) of malignant neoplasm of female genital organs or pelvic area (C18-C21; C48; C51-C58; C64-C68; C76.3; C77.5; C78.6; C79.6; C79.82) **Procedure Codes** After 1st of July 2019, exclude hysterectomies involving 96245-05 (Radical excision lymphatic structure, pelvic). Before 30th June 2019, exclude hysterectomies involving radical excision of pelvic lymph nodes (35664-01) **Major Diagnostic Category** Exclude MDC 14 (pregnancy; childbirth and puerperium) and exclude MDC 15 (newborns and other neonates)
Outcome (numerator) - Complications	Vaginal Hysterectomy patients with an external cause code was between Y60-Y6999 or Y83-Y8499.
Risk Adjustment Criteria	Anaemia, Diseases of the circulatory system, Other urinary symptoms, Urinary Tract Infection (site not specified)

Risk Adjustment Comorbidity	ICD Codes
Anaemia	D50-D64
Diseases of the circulatory system	I00-I99
Other urinary symptoms	R30-R39
Urinary Tract Infection (site not specified)	N390; T835

Depression Readmission

Indicator ID	C151-3
Indicator Name	Depression Readmission
Version Release	V1 - 2008/09
Brief Definition	Depression patients readmitted within 28 days
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Depression patients	**Diagnosis Related Group Codes** DRGs of U63B and U64Z (1 July 2006 to 30 June 2011 [v5.0]), U63Z Major Affective Disorders and U64Z Other Affective and Somatoform Disorders (1 July 2011 to 30 June 2012 [v6.0]), U63A Major Affective Disorders Age >69 or W (Catastrophic or Severe CC), U63B Major Affective Disorders Age <70 W/O Catastrophic or Severe CC and U64Z Other Affective and Somatoform Disorders (1 July 2012 to 30 June 2013[v6.x]), U63B Major Affective Disorders Age <70 W/O Catastrophic or Severe CC and U64Z Other Affective and Somatoform Disorders (from 1 July 2013 [v6.x]), U63B Major Affective Disorders, MINC, U64A Other Affective and Somatoform Disorders, MAJC and U64B Other Affective and Somatoform Disorders, MINC (from 1 July 2018 [v9.0]) **State of usual residence** Queensland resident (state_id=3) **Care Type (Type of Episode)** Includes only patients admitted to acute psych units (stnd_unit_code=PYAA). From July 1 2015, any of these acute patients who had a contiguous stay in any psychiatric extended stay unit, eg Psych Adult Extended-Treatment Rehab Unit are excluded. **Age of Patient** 18 to 64 years old **Length of Stay** Patients must have spent at least one night in hospital (end_date <> AdminDate). Patients admitted for one night with Block number 1907 (Electroconvulsive therapy) were also excluded. **Mode of separation (Discharge Status)** Include Home / usual residence; Correctional Facility and Residential Aged Care Service (SeparationCode = 01; 12; 15; 21 & 22). Exclude Residential Mental Health care facility (SeparationCode = 31)
Outcome (numerator) - Readmission	Patients readmitted to any Queensland hospital within 28 days of discharge with a DRG of Depression, admitted to acute psych units, Queensland residents and have stayed at least one night (two nights for patients admitted who had Electroconvulsive therapy). Readmissions were identified using probabilistic matching of identified data to allow inclusion of readmissions to a different facility as well as readmissions to the same facility. Episodes were matched using patient name (first name, surname and phonetic version of surname), date of birth, address (street, suburb and postcode), age and sex. To be considered a match, patients were required to be of the same sex and to have at least four of the other eight variables matching. A manual check was also conducted of potential matches to eliminate any false matches. Transfers out and in will not be included as readmissions as the separation of the initial period of care does not include transfers out.
Risk Adjustment Criteria	Social issues

Risk Adjustment Comorbidity	ICD Codes
Social issues	Z55-Z78

Depression Longstay

Indicator ID	C151-4
Indicator Name	Depression Longstay
Version Release	V1 - 2008/09
Brief Definition	Depression patients with a length of stay of 35 days or more
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Depression patients	**Diagnosis Related Group Codes** DRGs of U63B and U64Z (1 July 2006 to 30 June 2011 [v5.0]), U63Z Major Affective Disorders and U64Z Other Affective and Somatoform Disorders (1 July 2011 to 30 June 2012 [v6.0]), U63A Major Affective Disorders Age >69 or W (Catastrophic or Severe CC), U63B Major Affective Disorders Age <70 W/O Catastrophic or Severe CC and U64Z Other Affective and Somatoform Disorders (1 July 2012 to 30 June 2013[v6.x]), U63B Major Affective Disorders Age <70 W/O Catastrophic or Severe CC and U64Z Other Affective and Somatoform Disorders (from 1 July 2013 [v6.x]), U63B Major Affective Disorders, MINC, U64A Other Affective and Somatoform Disorders, MAJC and U64B Other Affective and Somatoform Disorders, MINC (from 1 July 2018 [v9.0]) **State of usual residence** Queensland resident (state_id=3) **Care Type (Type of Episode)** Includes only patients admitted to acute psych units (stnd_unit_code=PYAA). From July 1 2015, any of these acute patients who had a contiguous stay in any psychiatric extended stay unit, eg Psych Adult Extended-Treatment Rehab Unit are excluded. **Age of Patient** 18 to 64 years old **Length of Stay** Patients must have spent at least one night in hospital (end_date <> AdminDate). Patients admitted for one night with Block number 1907 (Electroconvulsive therapy) were also excluded. **Mode of separation (Discharge Status)** Include Home / usual residence; Correctional Facility, Residential Aged Care Service and Residential Mental Health care facility (SeparationCode = 01; 12; 15; 21; 22 & 31) **Linking episodes** A new mental health care type was introduced on the first of July 2015. From this date episodes will be linked. Linking will build backwards from an episode where the patient meets the above criteria. To be linked on the earlier episodes must: i) be the same patient ii) be contiguous iii) have DRG of U63B or U64Z iv) be either acute care type or mental health care type with standard unit code of PYAA, and v) have a separation mode of Episode change. **Source of referral/transfer (admission source)** Exclude Residential Mental Health care facility (AdmissionCode= 31)
Outcome (numerator) - Long stay	Depression patient length of stay was 35 days or more.The long stay point was chosen as 35 days as acute care certificates are 35 days
Risk Adjustment Criteria	Age Group, Diseases of the circulatory system, Intestinal disorders, Social issues

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Diseases of the circulatory system	I00-I99
Intestinal disorders	K21; K52-K59
Social issues	Z55-Z78

Schizophrenia Readmission

Indicator ID	C152-3
Indicator Name	Schizophrenia Readmission
Version Release	V1 - 2008/09
Brief Definition	Schizophrenia patients readmitted within 28 days
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Schizophrenia patients	**Diagnosis Related Group Codes** DRGs of U61A Schizophrenia Disorders W Mental Health Legal Status and U61B Schizophrenia Disorders W/O Mental Health Legal Status (1 July 2006 to 30 June 2011 [v5.0]), U61Z Schizophrenia Disorders (1 July 2011 to 30 June 2012 [v6.0]), U61A Schizophrenia Disorders W Mental Health Legal Status and U61B Schizophrenia Disorders W/O Mental Health Legal Status (1 July 2012 onward [v6.x]) **State of usual residence** Queensland resident (state_id=3) **Care Type (Type of Episode)** Includes only patients admitted to acute psych units (stnd_unit_code=PYAA). From July 1 2015, any of these acute patients who had a contiguous stay in any psychiatric extended stay unit, eg Psych Adult Extended-Treatment Rehab Unit are excluded. **Age of Patient** 18 to 64 years old **Length of Stay** Patients must have spent at least one night in hospital (end_date <> AdminDate). Patients admitted for one night with Block number 1907 (Electroconvulsive therapy) were also excluded. **Mode of separation (Discharge Status)** Include Home / usual residence; Correctional Facility and Residential Aged Care Service (SeparationCode = 01; 12; 15; 21 & 22)
Outcome (numerator) - Readmission	Patients readmitted to any Queensland hospital within 28 days of discharge with a DRG of Schizophrenia, admitted to acute psych units, Queensland residents and have stayed at least one night (three nights for patients admitted who had Electroconvulsive therapy from 1 July 2011 on, before that 2 nights). Readmissions were identified using probabilistic matching of identified data to allow inclusion of readmissions to a different facility as well as readmissions to the same facility. Episodes were matched using patient name (first name, surname and phonetic version of surname), date of birth, address (street, suburb and postcode), age and sex. To be considered a match, patients were required to be of the same sex and to have at least four of the other eight variables matching. A manual check was also conducted of potential matches to eliminate any false matches. Transfers out and in will not be included as readmissions as the separation of the initial period of care does not include transfers out.
Risk Adjustment Criteria	Age Group

Risk Adjustment Comorbidity	ICD Codes
Age Group	

Schizophrenia Longstay

Indicator ID	C152-4
Indicator Name	Schizophrenia Longstay
Version Release	V1 - 2008/09
Brief Definition	Schizophrenia patients with a length of stay of 35 days or more
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Schizophrenia patients	**Diagnosis Related Group Codes** DRGs of U61A Schizophrenia Disorders W Mental Health Legal Status and U61B Schizophrenia Disorders W/O Mental Health Legal Status (1 July 2006 to 30 June 2011 [v5.0]), U61Z Schizophrenia Disorders (1 July 2011 to 30 June 2012 [v6.0]), U61A Schizophrenia Disorders W Mental Health Legal Status and U61B Schizophrenia Disorders W/O Mental Health Legal Status (1 July 2012 onward [v6.x]) **State of usual residence** Queensland resident (state_id=3) **Care Type (Type of Episode)** Includes only patients admitted to acute psych units (stnd_unit_code=PYAA). From July 1 2015, any of these acute patients who had a contiguous stay in any psychiatric extended stay unit, eg Psych Adult Extended-Treatment Rehab Unit are excluded. **Age of Patient** 18 to 64 years old **Length of Stay** Patients must have spent at least one night in hospital (end_date <> AdminDate). Patients admitted for one night with Block number 1907 (Electroconvulsive therapy) were also excluded. **Mode of separation (Discharge Status)** Include Home / usual residence; Correctional Facility and Residential Aged Care Service (SeparationCode = 01; 12; 15; 21 & 22) **Linking episodes** A new mental health care type was introduced on the first of July 2015. From this date episodes will be linked. Linking will build backwards from an episode where the patient meets the above criteria. To be linked on the earlier episodes must: i) be the same patient ii) be contiguous iii) have DRG of U61A or 61B iv) be either acute care type or mental health care type with standard unit code of PYAA, and v) have a separation mode of Episode change.
Outcome (numerator) - Long stay	Schizophrenia patient length of stay was 35 days or more.The long stay point was chosen as 35 days as acute care certificates are 35 days
Risk Adjustment Criteria	Age Group, Anaemia, Diseases of the circulatory system, Hypotension and Shock, Acute upper RTI, Acute LRTI and Influenza, Intestinal disorders, Cellulitis, Dorsalgia, Renal disease, Other urinary symptoms

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Anaemia	D50-D64
Diseases of the circulatory system	I00-I99
Hypotension and Shock	I95; R57
Acute upper RTI	J00-J0699
Acute LRTI and Influenza	J9-J22
Intestinal disorders	K21; K52-K59
Cellulitis	L03
Dorsalgia	M54
Renal disease	N00-N39
Other urinary symptoms	R30-R39

Paediatric Tonsil & Adenoid Readmission

Indicator ID	D057-3
Indicator Name	Paediatric Tonsil & Adenoid Readmission
Version Release	V1 - 2010/2011
Brief Definition	Paediatric Tonsillectomy and Adenoidectomy patients readmitted within 15 days
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Paediatric Tonsillectomy and Adenoidectomy patients	**Procedure Codes** Procedure code of 41789-00 (Tonsillectomy without adenoidectomy); 41801-00 (Adenoidectomy without tonsillectomy); or 41789-01 (Tonsillectomy with adenoidectomy) **State of usual residence** Queensland resident (state_id = 3) **Care Type (Type of Episode)** Acute patients (CareType = 01) **Length of Stay** 0 – 30 patient days (LOS >= 0 and LOS <= 30) **Source of Referral/Transfer (Admission Source)** Exclude transfers in (AdmitCode <> 24) Include same day patients **Mode of separation (Discharge Status)** Include home/usual residence (sepn_mode = 01) **Age of Patient** 0 - 14 years (AgeGroup <= 03) **Additional criteria (Principal diagnosis or Other diagnosis)** Exclude any of the following conditions: B963(H. influenzae cause dis class oth chptr), D57(Sickle-cell disorders), D66(Hereditary factor VIII deficiency), D67(Hereditary factor IX deficiency), D680(Von Willebrand's disease), E1065(Type 1 DM with poor control), E271(Primary adrenocortical insufficiency), E84(Cystic fibrosis), G122(Motor neuron disease), G47.31(Central sleep apnoea syndrome), G80(Cerebral palsy), I456(Pre-excitation syndrome), J36(Peritonsillar abscess), J47(Bronchiectasis), N17(Acute kidney failure), P271(Chronic neonatal lung disease), Q05(Spina bifida), Q315(Congenital laryngomalacia), Q32(Cong malformations trachea & bronchus), Q38(Oth cong malform tongue mouth phrynx), Q8714(Prader-Willi syndrome), Q90(Down's syndrome), Q998(Other specified chromosome abnormalities), R56(Convulsions, NEC), R628(Oth lack normal physiological devt), R629(Lack expected physiological devt unsp), Z931(Gastrostomy status), Z944(Liver transplant status)
Outcome (numerator) - Readmission	Patients readmitted to any Queensland hospital within 15 days of discharge to home/usual residence (SeparationCode =01) for a condition that could be considered a consequence of the procedure. Relevant ICD codes in any diagnosis field are : E86, E898, E899, J03, J06, J18 - J22, J35 - J36, J958, J959, K910, K918, K919, K920, R040, R070, R11, R50, R53, R56, R58, R63.3, T81, T888, T889, Z038, Z039 and Z48. Readmissions were identified using probabilistic matching of identified data to allow inclusion of readmissions to a different facility as well as readmissions to the same facility. Episodes were matched using patient name (first name, surname and phonetic version of surname), date of birth, address (street, suburb and postcode), age and sex. To be considered a match, patients were required to be of the same sex and to have at least four of the other eight variables matching. A manual check was also conducted of potential matches to eliminate any false matches. Records were matched for acute episodes only to avoid counting hospitalisation for rehabilitation as a readmission.
Risk Adjustment Criteria	Aged 11 to 14 years

Risk Adjustment Comorbidity	ICD Codes
Aged 11 to 14 years	0 = 0 to 10 years, 1 = 11 to 14 years

Paediatric Tonsil & Adenoid Long stay

Indicator ID	D057-4
Indicator Name	Paediatric Tonsil & Adenoid Long stay
Version Release	V1 - 2010/2011
Brief Definition	Paediatric Tonsillectomy and Adenoidectomy patients with a length of stay of 2 days or more
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Paediatric Tonsillectomy and Adenoidectomy patients	**Procedure Codes** Procedure code of 41789-00 (Tonsillectomy without adenoidectomy); 41801-00 (Adenoidectomy without tonsillectomy); or 41789-01 (Tonsillectomy with adenoidectomy) **State of usual residence** Queensland resident (state_id = 3) **Care Type (Type of Episode)** Acute patients (CareType = 01) **Length of Stay** 0 – 30 patient days (LOS >= 0 and LOS <= 30) **Source of Referral/Transfer (Admission Source)** Exclude transfers in (AdmitCode <> 24) Include same day patients **Mode of separation (Discharge Status)** Include home/usual residence (sepn_mode = 01) **Age of Patient** 0 - 14 years (AgeGroup <= 03) **Additional criteria (Principal diagnosis or Other diagnosis)** Exclude any of the following conditions: B963(H. influenzae cause dis class oth chptr), D57(Sickle-cell disorders), D66(Hereditary factor VIII deficiency), D67(Hereditary factor IX deficiency), D680(Von Willebrand's disease), E1065(Type 1 DM with poor control), E271(Primary adrenocortical insufficiency), E84(Cystic fibrosis), G122(Motor neuron disease), G80(Cerebral palsy), I456(Pre-excitation syndrome), J36(Peritonsillar abscess), J47(Bronchiectasis), N17(Acute kidney failure), P271(Chronic neonatal lung disease), Q05(Spina bifida), Q315(Congenital laryngomalacia), Q32(Cong malformations trachea & bronchus), Q38(Oth cong malform tongue mouth phrynx), Q8714(Prader-Willi syndrome), Q90(Down's syndrome), Q998(Other specified chromosome abnormalities), R560(Febrile convulsions), R568(Other and unspecified convulsions), R628(Oth lack normal physiological devt), R629(Lack expected physiological devt unsp), Z931(Gastrostomy status), Z944(Liver transplant status)
Outcome (numerator) - Long stay	Paediatric Tonsillectomy and Adenoidectomy patients length of stay was 2 days or more.
Risk Adjustment Criteria	Aged 0 to 2 years, Obstructive sleep apnoea syndrome

Risk Adjustment Comorbidity	ICD Codes
Aged 0 to 2 years	0 = 3 to 14 years, 1 = 0 to 2 years
Obstructive sleep apnoea syndrome	G47.32

Heart Failure Longstay

Indicator ID	D002-4
Indicator Name	Heart Failure Longstay
Version Release	V2 - 2011/2012
Brief Definition	Heart Failure patients with a length of stay of 15 days or more
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Heart Failure patients	**Principal Diagnosis Code** I50 (Heart Failure) **State of Usual Residence** Queensland Resident (state_id = 3) **Care Type (Type of Episode)** Acute Patients (CareType = 01) **Overnight Stay Patients** Patients must have spent at least one night in hospital (end_date > AdmitDate) **Age of Patient** 18+ years **Length of stay** 1 - 30 patient days (LOS >= 1 and LOS <= 30) **Source of Referral/Transfer (Admission Source)** Excludes Transfers In (AdmitCode <> 24) **Mode of Separation (Discharge Status)** Excludes Transfers Out (SeparationCode <> 16)
Outcome (numerator) - Long stay	Heart Failure patient length of stay was 15 days or more. The long stay point was chosen as the day closest to the 90th percentile of all eligible length of stays.
Risk Adjustment Criteria	Acute LRTI and Influenza, Age Group, Anaemia, Cellulitis, Cerebrovascular Disease, Diabetes, Dysrhythmias, Hyponatremia, Hypotension and Shock, Intestinal disorders, Liver Disease, Oedema, Other Chronic Obstructive Pulmonary Disease, Other urinary symptoms, Pulmonary Hypertension, Renal Failure, Septicaemia, Ulcer of lower limb or decubitus ulcer, Urinary Tract Infection (site not specified), Valvular Disorders

Risk Adjustment Comorbidity	ICD Codes
Acute LRTI and Influenza	J9-J22
Age Group	
Anaemia	D50-D64
Cellulitis	L03
Cerebrovascular Disease	I60-I69
Diabetes	E10-E14
Dysrhythmias	I46-I49
Hyponatremia	E871
Hypotension and Shock	I95; R57
Intestinal disorders	K21; K52-K59
Liver Disease	K70-K77
Oedema	R60
Other Chronic Obstructive Pulmonary Disease	J40-J44; J47
Other urinary symptoms	R30-R39
Pulmonary Hypertension	I27
Renal Failure	N17; N18.3; N18.4; N18.5; N18.9; N19; R34
Septicaemia	A40-A41
Ulcer of lower limb or decubitus ulcer	L89; L97
Urinary Tract Infection (site not specified)	N390; T835
Valvular Disorders	I05-I08; I33-I39

Heart Failure Readmission

Indicator ID	D002-3
Indicator Name	Heart Failure Readmission
Version Release	V2 - 2011/2012
Brief Definition	Heart Failure Readmissions within 30 days
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Heart Failure patients	**Principal Diagnosis Code** I50 (Heart Failure) **State of Usual Residence** Queensland Resident (state_id = 3) **Care Type** Acute Patients (CareType = 01) **Overnight Stay Patients** Patients must have spent at least one night in hospital (end_date > AdmitDate) **Age of Patient** 18+ years **Length of Stay** 1 - 30 patient days (LOS >= 1 and LOS <= 30) **Source of Referral/Transfer (Admission Source)** Excludes Transfers In (AdmitCode <> 24) **Mode of separation (Discharge Status)** The following mode of separation are included: • Patient discharge to home/usual residence, • Correctional facility • Residential Aged Care Service **Mode of separation (Discharge Status)** Excludes Deaths (SeparationCode <> 05)
Outcome (numerator) - Readmission	Patients readmitted to any Queensland hospital within 30 days of discharge and for a condition that could be considered a consequence of the intitial treatment received (Principal Diagnosis codes: E86, E87.0, E87.1, E87.2, E87.3, E87.4, E87.5, E87.6, E87.7, I13.0, I13.2, I25.5, I42.0, I42.1, I42.2, I42.5, I42.6, I42.7, I42.8, I42.9, I50, I95, J81, J90, N17, N19, R00, R18, R57.0, R60.1 and emergency admissions). Readmissions were identified using probabilistic matching of identified data to allow inclusion of readmissions to a different facility as well as readmissions to the same facility. Episodes were matched using patient name (first name, surname and phonetic version of surname), date of birth, address (street, suburb and postcode), age and sex. To be considered a match, patients were required to have at least four of the other eight variables matching includign either first name, second name or date of birth. A manual check was also conducted of potential matches to eliminate any false matches. Records were matched for acute episodes only to avoid counting hospitalisation for rehabilitation as a readmission.
Risk Adjustment Criteria	Renal Failure

Risk Adjustment Comorbidity	ICD Codes
Renal Failure	N17; N18.3; N18.4; N18.5; N18.9; N19; R34

Laparoscopic Cholecystectomy Readmissions

Indicator ID	C052-3
Indicator Name	Laparoscopic Cholecystectomy Readmissions
Version Release	V1 - 2011/2012
Brief Definition	Laparoscopic Cholecystectomy Readmissions within 30 days
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Laparoscopic Cholecystectomy patients	**Procedure Codes** Before July 2013, any episodes with procedure codes 30445-00 (Laparoscopic Cholecystectomy) or 30446-00 (Laparoscopic Cholecystectomy proceeding to open Cholecystectomy). From July 2013 (changes due to ICD 8th edition), any episodes with procedure codes 30445-00 (Laparoscopic Cholecystectomy) or 30443-00 (Cholecystectomy) in conjunction with code 90343-01 (Laparoscopic procedure proceeding to open procedure) **State of usual residence** Queensland resident (state_id=3) **Care Type (Type of Episode)** Acute patients (CareType = 01) **Age of Patient** 20 years or older (AgeGroup >= 05) **Length of Stay after Lap Choli** Patient stay less than or equal to 30 days after the Lap Choli **Mode of separation (Discharge Status)** Exclude deaths (SeparationCode <> 05). **Complete record of Hospital Stay** For this indicator a complete record of hospital stay is used. In the case of changes of episode (SeparationCode = 06); immediately ensuing non-acute episodes (eg. rehabilitation) were appended to the original acute episode to form a complete record of the hospital stay; including non-acute episodes that extended into the next analysis period e.g., the separation date a complete hospital stay is based the separation of the last episode of care.
Outcome (numerator) - Readmissions	Patients readmitted to any Queensland hospital within 30 days of discharge to home / usual residence, residential aged care service or correctional facility (sepn_mode= "01","12","15", "21", "22") with a condition that could be considered a consequence of the procedure (for a list of diagnosis see the Indicator Review document at http://www.health.qld.gov.au/psu/vlad/ . From July 2013, the following diagnosis codes are added due to new ICD edition: K436; K433; K437; K434; K432; K435). Readmissions were identified using probabilistic matching to allow inclusion of readmissions to a different facility as well as readmissions to the same facility. Episodes were matched using patient name (first name, surname and phonetic version of surname), date of birth, address (street, suburb and postcode), age and sex. Matches required at least four of the eight variables matching including either date of birth, first or second name. Potential matches were checked manually. Readmissions had to be acute episodes only to avoid counting rehabilitation as a readmission. To avoid planned readmissions the readmission could not be elective episodes with a principal diagnosis of Calculus of the Bile Duct. Readmissions could not be transfers in.
Risk Adjustment Criteria	ASA group, Emergency

Risk Adjustment Comorbidity	ICD Codes
ASA group	Grouping of ASA scores
Emergency	Emergency patient either by elective status or emergency modifier on the ASA score

Laparoscopic Cholecystectomy Longstay

Indicator ID	C052-4
Indicator Name	Laparoscopic Cholecystectomy Longstay
Version Release	V1 - 2011/2012
Brief Definition	Laparoscopic Cholecystectomy patients with a length of stay after the Laparoscopic Cholecystectomy of more than 6 days for emergency patients and more than 2 days for non- emergency patients
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Laparoscopic Cholecystectomy patients	**Procedure Codes** Before July 2013, any episodes with procedure codes 30445-00 (Laparoscopic Cholecystectomy) or 30446-00 (Laparoscopic Cholecystectomy proceeding to open Cholecystectomy). From July 2013, any episodes with procedure codes 30445-00 (Laparoscopic Cholecystectomy) or 30443-00 (Cholecystectomy) in conjunction with code 90343-01 (Laparoscopic procedure proceeding to open procedure) **State of usual residence** Queensland resident (state_id=3) **Care Type (Type of Episode)** Acute patients (CareType = 01) **Age of Patient** 20 years or older (AgeGroup >= 05) **Length of Stay after Lap Choli** Patient stay less than or equal to 30 days after the Lap Choli **Mode of separation (Discharge Status)** Exclude in hospital deaths where they occur before the long stay points **Complete record of Hospital Stay** For this indicator a complete record of hospital stay is used. In the case of changes of episode (SeparationCode = 06); immediately ensuing non-acute episodes (eg. rehabilitation) were appended to the original acute episode to form a complete record of the hospital stay; including non-acute episodes that extended into the next analysis period e.g., the separation date a complete hospital stay is based the separation of the last episode of care.
Outcome (numerator) - Long stay	Laparoscopic Cholecystectomy patients with a length of stay after the Laparoscopic Cholecystectomy of more than 6 days for emergency patients and more than 2 days for non- emergency patients. Emergency patients were patients with an emergency admissions or where there was an emergency modifier on the ASA score for anaesthetics for the Laparoscopic Cholecystectomy procedure. The long stay point was chosen as the day closest to the 90th percentile of all eligible length of stays.
Risk Adjustment Criteria	Age Group, Diabetes, Dysrhythmias, Hypertension, Ischaemic Heart Disease, Liver Disease, Malignancy, Peritoneal Adhesions, Renal disease, ASA group, Sex, Emergency

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Diabetes	E10-E14
Dysrhythmias	I46-I49
Hypertension	I10-I15
Ischaemic Heart Disease	I20-I25
Liver Disease	K70-K77
Malignancy	C00-C97
Peritoneal Adhesions	K660
Renal disease	N00-N39
ASA group	Grouping of ASA scores
Sex	
Emergency	Emergency patient either by elective status or emergency modifier on the ASA score

Stroke In-hospital Mortality

Indicator ID	D003-1
Indicator Name	Stroke In-hospital Mortality
Version Release	V2 2011/2012
Brief Definition	In-hospital deaths of Stroke patients
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Stroke patients	**Principal Diagnosis Code** I61 (Intracerebral haemorrhage); I62 (Other nontraumatic intracranial haemorrhage); I63 (Cerebral infarction); I64 (Stroke; not specified as haemorrhage or infarction) **Care Type (Type of Episode)** Initial acute episodes (CareType = 01) , linked to subsequent acute stroke episodes or other non-acute episodes. In the case of changes of episode (SeparationCode = 06); immediately ensuing non-acute episodes in the same facility (eg. rehabilitation) were appended to the original acute episode to form a complete record of the hospital stay. **Length of Stay** Exclude same day and overnight patients that are not mortalities. **Age of Patient** 18 – 89 years **Source of Referral/Transfer (Admission Source) and Mode of separation (Discharge Status)** Transfers out from the initial hospital providing acute treatment are included, as are transfers in and out of subsequent hospitals in a single 'continuum of care' A transferred case is defined as either: - an admission to a subsequent hospital within 12 hours of separation from the previous hospital, or - an admission to a subsequent hospital within 36 hours with either a discharge status indicating a 'transfer out' or a source of referral indicating a 'transfer in' **Procedure Codes** Patients with any of the below procedures are excluded: - 33500-00 (Carotid endarterectomy) - 32703-00 (Resection of carotid artery with reanastomosis) - 35307-01 (Percutaneous transluminal angioplasty of single carotid artery, multiple stents) - 35307-00 (Percutaneous transluminal angioplasty of single carotid artery, single stent) - 40106-00 (Hind brain decompression) - 40015-00 (Subtemporal decompression) - 40106-01 (Posterior cranial fossa decompression) - 39015-00 (Insertion of external ventricular drain) - 90001-00 (Removal of external ventricular drain)
Outcome (numerator) - In-hospital mortality	Stroke patients who Died in-hospital (SeparationCode = 05) and had a total length of stay in their continuum of care less than or equal to 30 days (LOS_total <=30)
Risk Adjustment Criteria	Age Group, Heart Failure, Malignancy, Renal Failure, Stroke Type

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Heart Failure	I50
Malignancy	C00-C97
Renal Failure	N17; N18.3; N18.4; N18.5; N18.9; N19; R34
Stroke Type	Type of stroke (I61, I62, I63, I64)

Fractured Neck of Femur Complications of Surgery

Indicator ID	D051-2
Indicator Name	Fractured Neck of Femur Complications of Surgery
Version Release	V2 - 2011/2012
Brief Definition	Fractured Neck of Femur patients who had a complication of surgery at any time in the whole admission
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Fractured Neck of Femur patients	**Principal Diagnosis Codes and Procedure Codes** Principal diagnosis codes of S72.0, S72.1 or S72.2 with at least one of the following procedure codes: 47519-00, 47522-00, 47528-01, 47531-00, 49312-00, 49315-00 or 49318-00 **Episode type** All **Age** 50 years or older (age_grp >= "11") **Length of stay** All **Admission source** All **Separation mode** All **Elective status** All **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: an admission to a subsequent hospital within 12 hours of separation from the previous hospital, OR an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in'. Inclusion of patients/Denominator: Include in the hospital where the procedure was performed. Outcome/Numerator: If the patient had a complication in any hospital within the continuum of care then the complication will be included in the hospital where the procedure was performed.
Outcome (numerator) - Complications	Fractured Neck of Femur patients with an external cause code of Y60.0, Y60.1, Y60.3, Y60.6, Y60.8, Y60.9, Y61.0, Y61.1, Y61.7, Y61.8, Y61.9, Y62.0, Y62.1, Y62.6, Y62.8, Y62.9, Y63.0, Y63.1, Y63.2, Y63.3, Y63.5, Y63.6, Y63.8, Y63.9, Y64.x, Y65.x, Y66.x, Y69.x, Y83.1, Y83.2, Y83.4, Y83.5, Y83.8, Y83.9, Y84.2, Y84.4, Y84.6, Y84.7, Y84.8, Y84.9 or an other diagnosis code of M96.6 for any episode of care within the whole admission
Risk Adjustment Criteria	Anaemia, Diseases of the circulatory system, Other urinary symptoms

Risk Adjustment Comorbidity	ICD Codes
Anaemia	D50-D64
Diseases of the circulatory system	I00-I99
Other urinary symptoms	R30-R39

Fractured Neck of Femur In-hospital Mortality

Indicator ID	D051-1
Indicator Name	Fractured Neck of Femur In-hospital Mortality
Version Release	V2 - 2011/2012
Brief Definition	In-hospital deaths of Fractured Neck of Femur patients
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Fractured Neck of Femur patients	**Principal Diagnosis Codes and Procedure Codes** Principal diagnosis codes of S72.0, S72.1 or S72.2 with at least one of the following procedure codes: 47519-00, 47522-00, 47528-01, 47531-00, 49312-00, 49315-00 or 49318-00 **Episode type** All **Age** 50 years or older (age_grp >= "11") **Length of stay** All **Admission source** All **Separation mode** All **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: an admission to a subsequent hospital within 12 hours of separation from the previous hospital, OR an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in'. Inclusion of patients/Denominator: Include in the hospital where the procedure occurred and all hospitals with subsequent admissions where transfers have occurred. Outcome/Numerator: If the patient died at the end of a continuum of care then the death will be included in all hospitals where the patient had been admitted to in that continuum of care.
Outcome (numerator) - In-hospital mortality	Fractured Neck of Femur patients who died in-hospital (SeparationCode = 05) and had a total length of stay less than or equal to 30 days (los_total <=30)
Risk Adjustment Criteria	Age Group, ASA group, Dysrhythmias, Renal Failure, Sex, Heart Failure, Ischaemic Heart Disease

Risk Adjustment Comorbidity	ICD Codes
Age Group	
ASA group	Grouping of ASA scores
Dysrhythmias	I46-I49
Renal Failure	N17; N18.3; N18.4; N18.5; N18.9; N19; R34
Sex	
Heart Failure	I50, I110, I130, I132
Ischaemic Heart Disease	I20-I24; I250, I251, I253, I254, I255, I256, I258, I259

Hip Replacement Complications of Surgery

Indicator ID	D054-2
Indicator Name	Hip Replacement Complications of Surgery
Version Release	V2 - 2011/2012
Brief Definition	Hip Replacement patients who had a complication of surgery at any time in the whole admission
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Hip Replacement patients	**Principal Diagnosis Codes and Procedure Codes** Any principal diagnosis code (except S72.0, S72.1, S72.2) with at least one of the following procedure codes: 49318-00, 49319-00 **Episode type** All **Age** All **Length of stay** All **Admission source** All **Separation mode** All **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: an admission to a subsequent hospital within 12 hours of separation from the previous hospital, OR an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in'. Inclusion of patients/Denominator: Include in the hospital where the procedure was performed. Outcome/Numerator: If the patient has a complication recorded in any hospital within the continuum of care then the complication will be included in the hospital where the procedure was performed.
Outcome (numerator) - Complications	Hip Replacement patients with an external cause code of Y60.0, Y60.1, Y60.3, Y60.6, Y60.8, Y60.9, Y61.0, Y61.1, Y61.7, Y61.8, Y61.9, Y62.0, Y62.1, Y62.6, Y62.8, Y62.9, Y63.0, Y63.1, Y63.5, Y63.6, Y63.8, Y63.9, Y64.x, Y65.x, Y66.x, Y69.x, Y83.1, Y83.2, Y83.4, Y83.5, Y83.8, Y83.9, Y84.2, Y84.4, Y84.6, Y84.7, Y84.8, Y84.9 or an other diagnosis code of M96.6 for any episode of care within the whole admission
Risk Adjustment Criteria	Age Group, Anaemia, Diseases of the circulatory system, Other urinary symptoms

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Anaemia	D50-D64
Diseases of the circulatory system	I00-I99
Other urinary symptoms	R30-R39

Hip Replacement Longstay

Indicator ID	D054-4
Indicator Name	Hip Replacement Longstay
Version Release	V2 - 2011/2012
Brief Definition	Hip Replacement patients with a total length of stay of 23 days or more
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Hip Replacement patients	**Principal Diagnosis Codes and Procedure Codes** Any principal diagnosis code (except S72.0, S72.1, S72.2) with at least one of the following procedure codes: 49318-00, 49319-00 **Episode type** All **Age** All **Length of stay** All **Admission source** All **Separation mode** All **State of usual residence** Exclude if the patient's usual state of residence is interstate and the mode of separation in their last episode of care was 'Transferred out to another facility' **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: an admission to a subsequent hospital within 12 hours of separation from the previous hospital, OR an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in'. Inclusion of patients/Denominator: Include in the hospital where the procedure was performed and all hospitals with subsequent admissions where transfers have occurred. Outcome/Numerator: The long stay point is based on the total of length of stay of all patient days for all hospitals that the patient was admitted to in their continuum of care. If the total patient days equal or exceed the long stay point then the long stay will be included in all hospitals in the continuum of care.
Outcome (numerator) - Long stay	Hip Replacement patient length of stay is 23 days or more. The long stay point was chosen as the day closest to the 90th percentile of all eligible total length of stays.
Risk Adjustment Criteria	Age Group, Anaemia, ASA group, Emergency, Renal disease, Ulcer of lower limb or decubitus ulcer

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Anaemia	D50-D64
ASA group	Grouping of ASA scores
Emergency	Emergency patient either by elective status or emergency modifier on the ASA score
Renal disease	N00-N39
Ulcer of lower limb or decubitus ulcer	L89; L97

Hip Replacement Readmissions

Indicator ID	D054-3
Indicator Name	Hip Replacement Readmissions
Version Release	V2 - 2011/2012
Brief Definition	Hip Replacement patients who had been readmitted within a specified interval since discharge
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Hip Replacement patients	**Principal Diagnosis Codes and Procedure Codes** Any principal diagnosis code (except S72.0, S72.1, S72.2) with at least one of the following procedure codes: 49318-00, 49319-00 **Episode type** All **Age** All **Length of stay** All **Admission source** All **Separation mode** All **State of usual residence** Queensland resident (state_id = "3") **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: an admission to a subsequent hospital within 12 hours of separation from the previous hospital, OR an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in'. Inclusion of patients/Denominator: Include in the hospital where the procedure was performed and all hospitals with subsequent admissions where transfers have occurred. Outcome/Numerator: If the patient was readmitted then the readmission will be included in all hospitals where the patient had been admitted to in that continuum of care.
Outcome (numerator) - Readmission	Hip Replacement patients readmitted to any Queensland hospital within a specified interval (within 7 days, 30 days or 60 days depending on readmitted conditions) since discharge to home / usual residence, residential aged care service or correctional facility (sepn_mode= "01","12","15","21", "22") with a condition that could be considered a consequence of the procedure. For a list of readmitted conditions and their readmission interval see page 41 to 45 of the Orthopaedic Indicator Review Summary of Activity. The Summary of Activity can be found at http://www.health.qld.gov.au/psu/vlad/ OR under >About>Resource in VLAD CM. Readmissions were identified using probabilistic matching to allow inclusion of readmissions to a different facility as well as readmissions to the same facility. Episodes were matched using patient name (first name, surname and phonetic version of surname), date of birth, address (street, suburb and postcode), age and sex. Matches required at least four of the eight variables matching including either date of birth, first or second name. Potential matches were checked manually.
Risk Adjustment Criteria	ASA group

Risk Adjustment Comorbidity	ICD Codes
ASA group	Grouping of ASA scores

Knee Replacement Complications of Surgery

Indicator ID	D055-2
Indicator Name	Knee Replacement Complications of Surgery
Version Release	V2 - 2011/2012
Brief Definition	Knee Replacement patients who had a complication of surgery at any time in the whole admission
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Knee Replacement patients	**Principal Diagnosis Codes and Procedure Codes** Any principal diagnosis code with at least one of the following procedure codes: 49518-00, 49519-00, 49521-00, 49521-02 or 49524-00. **Episode type** All **Age** All **Length of stay** All **Admission source** All **Separation mode** All **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: an admission to a subsequent hospital within 12 hours of separation from the previous hospital, OR an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in'. Inclusion of patients/Denominator: Include in the hospital where the procedure was performed. Outcome/Numerator: If the patient has a complication recorded in any hospital within the continuum of care then the complication will be included in the hospital where the procedure was performed.
Outcome (numerator) - Complications	Knee replacement patients with an external cause code of Y60.0, Y60.1, Y60.3, Y60.6, Y60.8, Y60.9, Y61.0, Y61.1, Y61.7, Y61.8, Y61.9, Y62.0, Y62.1, Y62.6, Y62.8, Y62.9, Y63.0, Y63.1, Y63.5, Y63.6, Y63.8, Y63.9, Y64.x, Y65.x, Y66.x, Y69.x, Y83.1, Y83.2, Y83.4, Y83.5, Y83.8, Y83.9, Y84.2, Y84.4, Y84.6, Y84.7, Y84.8, Y84.9 or an other diagnosis code of M96.6 for any episode of care within the whole admission
Risk Adjustment Criteria	Anaemia, Diseases of the circulatory system, Intestinal disorders, Other urinary symptoms

Risk Adjustment Comorbidity	ICD Codes
Anaemia	D50-D64
Diseases of the circulatory system	I00-I99
Intestinal disorders	K21; K52-K59
Other urinary symptoms	R30-R39

Knee Replacement Longstay

Indicator ID	D055-4
Indicator Name	Knee Replacement Longstay
Version Release	V2 - 2011/2012
Brief Definition	Knee Replacement patients with a total length of stay of 17 days or more
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Knee Replacement patients	**Principal Diagnosis Codes and Procedure Codes** Any principal diagnosis code with at least one of the following procedure codes: 49518-00, 49519-00, 49521-00, 49521-02 or 49524-00 **Episode type** All **Age** All **Length of stay** All **Admission source** All **Separation mode** All **State of usual residence** Exclude if the patient's usual state of residence is interstate and the mode of separation in their last episode of care was 'Transferred out to another facility' **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: an admission to a subsequent hospital within 12 hours of separation from the previous hospital, OR an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in'. Inclusion of patients/Denominator: Include in the hospital where the procedure was performed and all hospitals with subsequent admissions where transfers have occurred. Outcome/Numerator: The long stay point is based on the total of length of stay of all patient days for all hospitals that the patient was admitted to in their continuum of care. If the total patient days equal or exceed the long stay point then the long stay will be included in all hospitals in the continuum of care.
Outcome (numerator) - Long stay	Knee Replacement patient length of stay is 17 days or more. The long stay point was chosen as the day closest to the 90th percentile of all eligible total length of stays.
Risk Adjustment Criteria	Age Group, ASA group, Diseases of the circulatory system, Intestinal disorders, Renal disease, Ulcer of lower limb or decubitus ulcer

Risk Adjustment Comorbidity	ICD Codes
Age Group	
ASA group	Grouping of ASA scores
Diseases of the circulatory system	I00-I99
Intestinal disorders	K21; K52-K59
Renal disease	N00-N39
Ulcer of lower limb or decubitus ulcer	L89; L97

Knee Replacement Readmissions

Indicator ID	D055-3
Indicator Name	Knee Replacement Readmissions
Version Release	V2 - 2011/2012
Brief Definition	Knee Replacement patients who had been readmitted within a specified interval since discharge
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Knee Replacement patients	**Principal Diagnosis Codes and Procedure Codes** Any principal diagnosis code with at least one of the following procedure codes: 49518-00, 49519-00, 49521-00, 49521-02 or 49524-00 **Episode type** All **Age** All **Length of stay** All **Admission source** All **Separation mode** All **State of usual residence** Queensland resident (state_id = "3") **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: an admission to a subsequent hospital within 12 hours of separation from the previous hospital, OR an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in'. Inclusion of patients/Denominator: Include in the hospital where the procedure was performed and all hospitals with subsequent admissions where transfers have occurred. Outcome/Numerator: If the patient was readmitted then the readmission will be included in all hospitals where the patient had been admitted to in that continuum of care.
Outcome (numerator) - Readmission	Knee Replacement patients readmitted to any Queensland hospital within a specified interval (within 7 days, 30 days or 60 days depending on readmitted conditions) since discharge to home / usual residence, residential aged care service or correctional facility (sepn_mode= "01","12","15","21", "22") with a condition that could be considered a consequence of the procedure. For a list of readmitted conditions and their readmission interval see page 41 to 45 of the Orthopaedic Indicator Review Summary of Activity. The Summary of Activity can be found at http://www.health.qld.gov.au/psu/vlad/ OR under >About>Resource in VLAD CM. Readmissions were identified using probabilistic matching to allow inclusion of readmissions to a different facility as well as readmissions to the same facility. Episodes were matched using patient name (first name, surname and phonetic version of surname), date of birth, address (street, suburb and postcode), age and sex. Matches required at least four of the eight variables matching including either date of birth, first or second name. Potential matches were checked manually.
Risk Adjustment Criteria	No comorbidities found.

Acute Myocardial Infarction In-hospital Mortality

Indicator ID	D001-1
Indicator Name	Acute Myocardial Infarction In-hospital Mortality
Version Release	V2 - 2011/2012
Brief Definition	In-hospital deaths of Acute Myocardial Infarction patients
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Acute Myocardial Infarction patients	**Principal Diagnosis Codes** I21 (Acute myocardial infarction). For continuum of care: • If the patient is admitted with principal diagnosis(PD) of Chest Pain/Angina and then transferred to another hospital with PD of AMI then the episode of care of Chest Pain/Angina as well as the episode of care with PD of AMI will be included in the VLAD chart. This is to avoid excluding episodes where the AMI diagnosis has not yet been determined. • If the patient is admitted with PD of AMI and then transferred to another hospital with PD of Chest Pain or Angina then this whole continuum of care is excluded from the definition. This is to avoid including patients who were admitted due to Chest Pain or Angina but incorrectly diagnosed as AMI in the index hospital. **Separation date** 1 July 2009 through to most recent Qld Hospital Admitted Patient Data Collection data **Episode type** Acute **Age** All **Length of stay** All **Elective Status of patient** Emergency admission only **Admission source** All **Separation mode** All. Also see "State of Usual Residence". **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: • an admission to a subsequent hospital within 12 hours of separation from the previous hospital OR • an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in'. Inclusion of patients/Denominator: Include in the hospital where the initial admission occurred and all hospitals with subsequent admissions, where transfers have occurred, and where the patient met the Principal Diagnosis codes above. Outcome/Numerator: If an adverse event (in-hospital mortality, long stay, readmission) occur, the adverse event will be included in all hospitals where the patient had been admitted to in that continuum of care. **State of Usual Residence** Exclude if the patient's usual residence is interstate and the mode of separation in their last episode of care of a continuum of care was 'Transferred out to another facility'. **Additional Exclusion for ICD codes** Exclude out of hospital arrest. Out of hospital arrest is defined using additional diagnosis code Cardiac Arrest (I46) and Condition present on admission flag (onset_type = 1). From 1 July 2017 - As per National Coding Advice, June 2017, Australian Consortium for Classification Development, Out of hospital arrest cannot be coded as an additional diagnosis. In the review, if hospital has any cases with an out of hospital arrest and where the patient died, then document this in the response. After 1st July 2019 episodes with out-of-hospital arrest won't be excluded.
Outcome (numerator) - In-hospital mortality	Acute Myocardial Infarction patients who Died in-hospital (SeparationCode = 05) and had a length of stay less than or equal to 30 days (LOS <=30)
Risk Adjustment Criteria	Age Group, Cerebrovascular Disease, Dementia (inc. Alzheimers Disease), Dysrhythmias, Heart Failure, Hypotension and Shock, Malignancy, Renal Failure

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Cerebrovascular Disease	I60-I69
Dementia (inc. Alzheimers Disease)	F00-F03; G30-G311
Dysrhythmias	I46-I49
Heart Failure	I50
Hypotension and Shock	I95; R57
Malignancy	C00-C97

Renal Failure	N17; N18.3; N18.4; N18.5; N18.9; N19; R34

Acute Myocardial Infarction Readmission

Indicator ID	D001-3
Indicator Name	Acute Myocardial Infarction Readmission
Version Release	V2 - 2011/2012
Brief Definition	Acute Myocardial Infarction patients readmitted within 7 or 30 days
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Acute Myocardial Infarction patients	**Principal Diagnoses Code** I21 (Acute myocardial infarction) For continuum of care: • If the patient is admitted with principal diagnosis(PD) of Chest Pain/Angina and then transferred to another hospital with PD of AMI then the episode of care of Chest Pain/Angina as well as the episode of care with PD of AMI will be included in the VLAD chart. This is to avoid excluding episodes where the AMI diagnosis has not yet been determined. • If the patient is admitted with PD of AMI and then transferred to another hospital with PD of Chest Pain or Angina then this whole continuum of care is excluded from the definition. This is to avoid including patients who were admitted due to Chest Pain or Angina but incorrectly diagnosed as AMI in the index hospital. **Episode type** Acute **Age** All **Length of stay** All **Elective Status of patient** Emergency admission only **Admission source/referral source** All **Separation mode** The following mode of separation in the last episode of care are included: • Patient discharge to home/usual residence, • Correctional facility • Residential Aged Care Service **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: • an admission to a subsequent hospital within 12 hours of separation from the previous hospital OR • an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in' Inclusion of patients/Denominator: Include in the hospital where the initial admission occurred and all hospitals with subsequent admissions, where transfers have occurred, and where the patient met the principal diagnosis codes above. Outcome/Numerator: If an adverse event (in-hospital mortality, long stay, readmission) occur, the adverse event will be included in all hospitals where the patient had been admitted to in that continuum of care. **State of Usual Residence** Queensland usual residence
Outcome (numerator) - Readmission	Patients readmitted to any Queensland hospital within 7 or 30 days of discharge to home / usual residence, residential aged care service or correctional facility (sepn_mode= "01","12","15","21","22") with a condition that could be considered a consequence of the diagnosis (for a list of diagnosis see the Indicator Review document at http://www.health.qld.gov.au/psu/vlad/ or under >About>Resource in VLAD CM). The readmitted admission must be emergency admissions (elect_status = 1). Readmissions were identified using probabilistic matching to allow inclusion of readmissions to a different facility as well as readmissions to the same facility. Episodes were matched using patient name (first name, surname and phonetic version of surname), date of birth, address (street, suburb and postcode), age and sex. Matches required at least four of the eight variables matching including either date of birth, first or second name. Potential matches were checked manually. Readmissions could not be transfers in.
Risk Adjustment Criteria	Age Group, Heart Failure, Renal disease

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Heart Failure	I50
Renal disease	N00-N39

Acute Myocardial Infarction Longstay

Indicator ID	D001-4
Indicator Name	Acute Myocardial Infarction Longstay
Version Release	V2 - 2011/2012
Brief Definition	Acute Myocardial Infarction patients with a length of stay of 12 days or more
Data Source	Queensland Hospital Admitted Patient Data Collection (QHAPDC)
Inclusion and Exclusion Criteria (denominator) - Acute Myocardial Infarction patients	**Principal Diagnoses Code** I21 (Acute myocardial infarction) For continuum of care: • If the patient is admitted with principal diagnosis(PD) of Chest Pain/Angina and then transferred to another hospital with PD of AMI then the episode of care of Chest Pain/Angina as well as the episode of care with PD of AMI will be included in the VLAD chart. This is to avoid excluding episodes where the AMI diagnosis has not yet been determined. • If the patient is admitted with PD of AMI and then transferred to another hospital with PD of Chest Pain or Angina then this whole continuum of care is excluded from the definition. This is to avoid including patients who admitted due to Chest Pain or Angina but incorrectly diagnosis as AMI in the index hospital. **Episode type** Acute **Age** All **Length of stay** All **Elective Status of patient** Emergency admission only **Admission source/referral source** All **Separation mode** Include all mode of separation. Also see "State of Usual of residence". **Rules applied when patients are transferred to other hospitals** A transferred case is defined as either: • an admission to a subsequent hospital within 12 hours of separation from the previous hospital OR • an admission to a subsequent hospital within 36 hours with indication of either a 'transfer out' or a 'transfer in'. Inclusion of patients/Denominator: Include in the hospital where the initial admission occurred and all hospitals with subsequent admissions, where transfers have occurred, and where the patient met the principal diagnosis codes above. Outcome/Numerator: If an adverse event (in-hospital mortality, long stay, readmission) occur, the adverse event will be included in all hospitals where the patient had been admitted to in that continuum of care. **State of Usual of residence** Exclude if the patient's usual residence is interstate and the mode of separation in their last episode of care of a continuum of care was 'Transferred out to another facility'. **Additional Exclusion for ICD codes** Excludes Procedure codes in block codes: • Coronary artery bypass - saphenous vein graft (0672), • Coronary artery bypass - left internal mammary artery [LIMA] graft (0674), • Coronary artery bypass - right internal mammary artery [RIMA] graft (0675) • Coronary artery bypass - radial artery graft (0676), • Coronary artery bypass - other artery graft (0678).
Outcome (numerator) - Long stay	Long Stay Point = 12 Days. For the purposes of this project, the long stay point was chosen as the day closest to the 90th percentile of all eligible total length of stays. Therefore a long stay is defined as a record where the total number of patient days equalled or exceeded the long stay point. Cases of in-hospital mortality prior to the long stay point were excluded from the calculation, but patients who died on or after the long stay point were included for this indicator. For transferred in/out patients, the eligible length of stay is the total length of stays in a continuum of care.
Risk Adjustment Criteria	Age Group, Anaemia, Cerebrovascular Disease, Dysrhythmias, Heart Failure, Hypotension and Shock, Malignancy, Other Chronic Obstructive Pulmonary Disease, Renal disease

Risk Adjustment Comorbidity	ICD Codes
Age Group	
Anaemia	D50-D64
Cerebrovascular Disease	I60-I69
Dysrhythmias	I46-I49
Heart Failure	I50
Hypotension and Shock	I95; R57
Malignancy	C00-C97
Other Chronic Obstructive Pulmonary Disease	J40-J44; J47

Renal disease	N00-N39

Obstetrics - Induction of labour (revised)

Indicator ID	NCMI5
Indicator Name	Obstetrics - Induction of labour (revised)
Version Release	V1 - 2019/2020
Brief Definition	Selected primiparea patients who had an induction
Data Source	Queensland Perinatal Data Collection (QPDC)
Inclusion and Exclusion Criteria (denominator) - Selected primiparea patients	**Mothers age group** 20-34 years (20 <= moth_age_at_brth <=34) **Previous Deliveries** No previous deliveries (all_live < 1 and all_still < 1 and live_still < 1 and live_abort < 1 and still_abort < 1 and live_still_abort < 1) **Plurality** Singleton birth (plur = 1) **Completed weeks of gestation** 37 weeks and 0 days to 40 weeks and 6 days (37 <= gest_weeks <=40 and 0 <= gestation_days <= 6). The upper criteria for gestation weeks differs from the NCMI definition due to the Qld Induction of Labour Guideline. **Presentation at Birth** Vertex presentation (pres = 1)
Outcome (numerator) - Induction	Selected primiparae patients where onset of labour was induced
Risk Adjustment Criteria	Antepartum haemorrhage (not elsewhere classified), Diabetes, Hypertensive disorders (including chronic renal disease), Intrauterine growth restriction, BMI, Obstetric Cholestasis, Fetal Wellbeing (Signs of foetal hypoxia), Premature rupture of membranes

Risk Adjustment Comorbidity	ICD Codes
Antepartum haemorrhage (not elsewhere classified)	O46
Diabetes	Method of diabetes control : 0 - No diabetes, 1 - Other treatment (O2414, O2424, O2434, O2444, O2494), 2 - Oral hypoglycaemic therapy (O2413, O2423, O2433, O2443, O2493), 3 - Insulin treated (O240, O2412, O2422, O2432, O2442, O2492)
Hypertensive disorders (including chronic renal disease)	O10, O11, O13, O14, O15, O16
Intrauterine growth restriction	O365
BMI	Severely Obesity (0 - BMI < 35 1 - BMI >=35)
Obstetric Cholestasis	K831, O266
Fetal Wellbeing (Signs of foetal hypoxia)	O363, O680 to O692
Premature rupture of membranes	O42

Obstetrics - Instrumental vaginal birth (revised)

Indicator ID	NCMI8
Indicator Name	Obstetrics - Instrumental vaginal birth (revised)
Version Release	V1 - 2019/2020
Brief Definition	Selected primiparae patients who had an instrumental delivery
Data Source	Queensland Perinatal Data Collection (QPDC)
Inclusion and Exclusion Criteria (denominator) - Selected primiparae patients	**Mothers age group** 20-34 years (20 <= moth_age_at_brth <=34) **Previous Deliveries** No previous deliveries (all_live < 1 and all_still < 1 and live_still < 1 and live_abort < 1 and still_abort < 1 and live_still_abort < 1) **Plurality** Singleton birth (plur = 1) **Completed weeks of gestation** 37 weeks and 0 days to 40 weeks and 6 days (37 <= gest_weeks <=40 and 0 <= gestation_days <= 6). The upper criteria for gestation weeks differs from the NCMI definition due to the Qld Induction of Labour Guideline. **Presentation at Birth** Vertex presentation (pres =1) **Delivery Method** All **Completed weeks of gestation** 37 weeks and 0 days to 40 weeks and 6 days (37 <= gest_weeks <=40 and 0 <= gestation_days <= 6)
Outcome (numerator) - Instrumental delivery	Selected primiparae patients where the delivery was assisted by instruments (deliv_code = 2, 3, 02, 03)
Risk Adjustment Criteria	Foetal distress, Shoulder dystocia

Risk Adjustment Comorbidity	ICD Codes
Foetal distress	O68
Shoulder dystocia	O66.0

Obstetrics - 3rd and 4th degree perineal tears for all vaginal births (new)

Indicator ID	NCMI13b
Indicator Name	Obstetrics - 3rd and 4th degree perineal tears for all vaginal births (new)
Version Release	V1 - 2019/2020
Brief Definition	Females who had a 3rd or 4th degree perineal tear during the delivery
Data Source	Queensland Perinatal Data Collection (QPDC)
Inclusion and Exclusion Criteria (denominator) - Females who gave birth vaginally	**Delivery Method** Include vaginal birth (deliv_code = 2, 3, 02, 03,1,10) **Gestation week or baby weight** Gestation weeks above 20 or baby weight above 400 grams (gest_weeks>=20 or baby_weight >=400)
Outcome (numerator) - 3rd or 4th degree perineal tear	Females who had a third or fourth degree perineal laceration after giving birth vaginally
Risk Adjustment Criteria	Method of Delivery, Shoulder dystocia, Baby birth weight (3 groups), First Birth, Age Group of mother at childs birth

Risk Adjustment Comorbidity	ICD Codes
Method of Delivery	1 = Non-instrumental, 2 = Forceps, 3 = Vacuum extractor
Shoulder dystocia	O66.0
Baby birth weight (3 groups)	Group 1: <3500 grams, Group 2: 3500 grams to <4000 grams, Group 3: >=4000 grams
First Birth	1 - No previous pregnancies, 0 - Previous pregancies
Age Group of mother at childs birth	24 = <25 years, 25 = 25 - 29 years, 30 = 30 - 34 years, 35 = 35 years and over

Obstetrics - 3rd and 4th degree perineal tears for vaginal first births (revised)

Indicator ID	NCMI13a
Indicator Name	Obstetrics - 3rd and 4th degree perineal tears for vaginal first births (revised)
Version Release	V1 - 2019/2020
Brief Definition	Females who had a 3rd or 4th degree perineal tear for vaginal first births
Data Source	Queensland Perinatal Data Collection (QPDC)
Inclusion and Exclusion Criteria (denominator) - Females giving birth for the first time who gave birth vaginally	**Previous Deliveries** No previous deliveries (all_live < 1 and all_still < 1 and live_still < 1 and live_abort < 1 and still_abort < 1 and live_still_abort < 1) **Delivery Method** Include vaginal deliveries (deliv_code = 2, 3, 02, 03, 1, 10) **Gestation week or baby weight** Gestation weeks above 20 or baby weight above 400 grams (gest_weeks>=20 or baby_weight >=400)
Outcome (numerator) - Females giving birth for the first time who had a third or fourth degree perineal laceration after giving birth vaginally	3rd or 4th degree perineal tear
Risk Adjustment Criteria	Age Group of mother at childs birth, Baby birth weight (3 groups), Method of Delivery, Shoulder dystocia

Risk Adjustment Comorbidity	ICD Codes
Age Group of mother at childs birth	24 = <25 years, 25 = 25 - 29 years, 30 = 30 - 34 years, 35 = 35 years and over
Baby birth weight (3 groups)	Group 1: <3500 grams, Group 2: 3500 grams to <4000 grams, Group 3: >=4000 grams
Method of Delivery	1 = Non-instrumental, 2 = Forceps, 3 = Vacuum extractor
Shoulder dystocia	O66.0

Obstetrics - Caesarean Section (Public) (revised)

Indicator ID	NCMI6-1
Indicator Name	Obstetrics - Caesarean Section (Public) (revised)
Version Release	V1 - 2019/2020
Brief Definition	Selected primiparea patients who had a caesarean section in a public facility
Data Source	Queensland Perinatal Data Collection (QPDC)
Inclusion and Exclusion Criteria (denominator) - Selected primiparea patients (public facilities)	**Mothers age group** 20-34 years (20 <= moth_age_at_brth <=34) **Previous Deliveries** No previous deliveries (all_live < 1 and all_still < 1 and live_still < 1 and live_abort < 1 and still_abort < 1 and live_still_abort < 1) **Plurality** Singleton birth (plur = 1) **Presentation at Birth** Vertex presentation (pres = 1) **Completed weeks of gestation** 37 weeks and 0 days to 40 weeks and 6 days (37 <= gest_weeks <=40 and 0 <= gestation_days <= 6). The upper criteria for gestation weeks differs from the NCMI definition due to the Qld Induction of Labour Guideline.
Outcome (numerator) - Caesarean Section	Selected primip patients who had a caesarean section in a public facility
Risk Adjustment Criteria	Chorioamnionitis, Diabetes, Anogenital herpesviral [herpes simplex] infection, BMI, Hypertensive disorders (including chronic renal disease), Placenta praevia, Premature Separation of Placenta, Fetal Wellbeing (Signs of foetal hypoxia)

Risk Adjustment Comorbidity	ICD Codes
Chorioamnionitis	O411
Diabetes	Method of diabetes control : 0 - No diabetes, 1 - Other treatment (O2414, O2424, O2434, O2444, O2494), 2 - Oral hypoglycaemic therapy (O2413, O2423, O2433, O2443, O2493), 3 - Insulin treated (O240, O2412, O2422, O2432, O2442, O2492)
Anogenital herpesviral [herpes simplex] infection	A60, N770
BMI	Severely Obesity (0 - BMI < 35 1 - BMI >=35)
Hypertensive disorders (including chronic renal disease)	O10, O11, O13, O14, O15, O16
Placenta praevia	O44
Premature Separation of Placenta	O45
Fetal Wellbeing (Signs of foetal hypoxia)	O363, O680 to O692

Obstetrics - Caesarean Section (Private) (revised)

Indicator ID	NCMI6-2
Indicator Name	Obstetrics - Caesarean Section (Private) (revised)
Version Release	V1 - 2019/2020
Brief Definition	Selected primiparae patients who had a caesarean section in a private facility
Data Source	Queensland Perinatal Data Collection (QPDC)
Inclusion and Exclusion Criteria (denominator) - Selected primiparae patients (private hospitals)	**Mothers age group** 20-34 years (20 <= moth_age_at_brth <=34) **Previous Deliveries** No previous deliveries (all_live < 1 and all_still < 1 and live_still < 1 and live_abort < 1 and still_abort < 1 and live_still_abort < 1) **Plurality** Singleton birth (plur = 1) **Completed weeks of gestation** 37 weeks and 0 days to 40 weeks and 6 days (37 <= gest_weeks <=40 and 0 <= gestation_days <= 6). The upper criteria for gestation weeks differs from the NCMI definition due to the Qld Induction of Labour Guideline. **Presentation at Birth** Vertex presentation (pres = 1)
Outcome (numerator) - Caesarean Section	Selected primip patients who had a caesarean section in a private facility
Risk Adjustment Criteria	Anogenital herpesviral [herpes simplex] infection, BMI, Diabetes, Placenta praevia

Risk Adjustment Comorbidity	ICD Codes
Anogenital herpesviral [herpes simplex] infection	A60, N770
BMI	Severely Obesity (0 - BMI < 35 1 - BMI >=35)
Diabetes	Method of diabetes control : 0 - No diabetes, 1 - Other treatment (O2414, O2424, O2434, O2444, O2494), 2 - Oral hypoglycaemic therapy (O2413, O2423, O2433, O2443, O2493), 3 - Insulin treated (O240, O2412, O2422, O2432, O2442, O2492)
Placenta praevia	O44

Obstetrics - Episiotomy (unassisted) - Public (revised)

Indicator ID	NCMI3a-1
Indicator Name	Obstetrics - Episiotomy (unassisted) - Public (revised)
Version Release	V1 - 2019/2020
Brief Definition	Females giving birth for the first time who had an episiotomy during an unassisted vaginal birth in a public facility
Data Source	Queensland Perinatal Data Collection (QPDC)
Inclusion and Exclusion Criteria (denominator) - Females giving birth for the first time who had an unassisted vaginal birth (public facilities)	**Previous Deliveries** No previous deliveries (all_live < 1 and all_still < 1 and live_still < 1 and live_abort < 1 and still_abort < 1 and live_still_abort < 1) **Delivery Method** Include non-instrumental vaginal (deliv_code = 1, 10) **Gestation week or baby weight** Gestation weeks above 20 or baby weight above 400 grams (gest_weeks>=20 or baby_weight >=400)
Outcome (numerator) - Episiotomy	Females giving birth for the first time who had an episiotomy during an unassisted vaginal birth in a public facility
Risk Adjustment Criteria	Age Group of mother at childs birth, BMI, Foetal distress, Shoulder dystocia, Baby birth weight (3 groups with underweight)

Risk Adjustment Comorbidity	ICD Codes
Age Group of mother at childs birth	24 = <25 years, 25 = 25 - 29 years, 30 = 30 - 34 years, 35 = 35 years and over
BMI	Underweight : 0 - BMI >= 18.5, 1 - BMI < 18.5
Foetal distress	O68
Shoulder dystocia	O66.0
Baby birth weight (3 groups with underweight)	Group 1: <2500 grams, Group 2: 2500 grams to <4000 grams, Group 3: >=4000 grams

Obstetrics - Episiotomy (unassisted) - Private (revised)

Indicator ID	NCMI3a-2
Indicator Name	Obstetrics - Episiotomy (unassisted) - Private (revised)
Version Release	V1 - 2019/2020
Brief Definition	Females giving birth for the first time who had an episiotomy during an unassisted vaginal birth in a private facility
Data Source	Queensland Perinatal Data Collection (QPDC)
Inclusion and Exclusion Criteria (denominator) - Females giving birth for the first time who had an unassisted vaginal birth (private facilities)	**Previous Deliveries** No previous deliveries (all_live < 1 and all_still < 1 and live_still < 1 and live_abort < 1 and still_abort < 1 and live_still_abort < 1) **Delivery Method** Include non-instrumental vaginal (deliv_code = 1, 10) **Gestation week or baby weight** Gestation weeks above 20 or baby weight above 400 grams (gest_weeks>=20 or baby_weight >=400)
Outcome (numerator) - Episiotomy	Females giving birth for the first time who had an episiotomy during an unassisted vaginal birth in a private facility
Risk Adjustment Criteria	

No comorbidities found.

Obstetrics - Episiotomy (assisted) -Public (revised)

Indicator ID	NCMI3b-1
Indicator Name	Obstetrics - Episiotomy (assisted) -Public (revised)
Version Release	V1 - 2019/2020
Brief Definition	Females giving birth for the first time who had an episiotomy during an assisted vaginal birth in public facility
Data Source	Queensland Perinatal Data Collection (QPDC)
Inclusion and Exclusion Criteria (denominator) - Females giving birth for the first time who had instrumental vaginal birth (public facilities)	**Previous Deliveries** No previous deliveries (all_live < 1 and all_still < 1 and live_still < 1 and live_abort < 1 and still_abort < 1 and live_still_abort < 1) **Delivery Method** Include instrumental vaginal (deliv_code = 2, 3, 02, 03) **Gestation week or baby weight** Gestation weeks above 20 or baby weight above 400 grams (gest_weeks>=20 or baby_weight >=400)
Outcome (numerator) - Episiotomy	Females giving birth for the first time who had an episiotomy during an assisted vaginal birth in public facility
Risk Adjustment Criteria	Forcep delivery

Risk Adjustment Comorbidity	ICD Codes
Forcep delivery	0 = Vacuum extractor, 1 = Forceps

Obstetrics - Episiotomy (assisted) - Private (revised)

Indicator ID	NCMI3b-2
Indicator Name	Obstetrics - Episiotomy (assisted) - Private (revised)
Version Release	V1 - 2019/2020
Brief Definition	Females giving birth for the first time who had an episiotomy during an assisted vaginal birth private facility
Data Source	Queensland Perinatal Data Collection (QPDC)
Inclusion and Exclusion Criteria (denominator) - Females giving birth for the first time who had an assisted vaginal birth (private facilities)	**Previous Deliveries** No previous deliveries (all_live < 1 and all_still < 1 and live_still < 1 and live_abort < 1 and still_abort < 1 and live_still_abort < 1) **Delivery Method** Include instrumental vaginal (deliv_code = 2, 3, 02, 03) **Gestation week or baby weight** Gestation weeks above 20 or baby weight above 400 grams (gest_weeks>=20 or baby_weight >=400)
Outcome (numerator) - Episiotomy	Females giving birth for the first time who had an episiotomy during an assisted vaginal birth in private facility
Risk Adjustment Criteria	Forcep delivery

Risk Adjustment Comorbidity	ICD Codes
Forcep delivery	0 = Vacuum extractor, 1 = Forceps