Technical Note

# YEARBOOK OF STATISTICS 2017:

# REVISIONS TO STATISTICAL TABLES ON HEALTH (NEW TABLES 23.1, 23.2, 23.3, 23.4)

**OBJECTIVE**

The Ministry of Health (MOH) has reviewed and updated the reporting of health facilities, beds and admissions in its statistical releases with effect from 2017. We have taken into consideration the international classification for health facilities and inpatient beds, with adaptation to Singapore’s context. The classification and categories have been revised and additional data items previously not reported are added. Tables in the Yearbook of Statistics (YOS) 2017 have been updated and the affected tables are the previous Table 24.1 “Hospitals and Public Sector Clinics”, Table 24.2 “Hospital Admissions and Public Sector Outpatient Attendances”, and Table 24.3 “Hospital Admission Rate by Sex and Age”.

This note explains the updates to the statistics in the previous Tables 24.1, 24.2 and 24.3 arising from the revisions.

**REVISED TABLES IN YEARBOOK OF STATISTICS 2017**

Tables 24.1, 24.2 and 24.3 in YOS 2016 are updated as follows:

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| **Yearbook of Statistics 2016** | **Yearbook of Statistics 2017** | **Remarks** |
| Table 24.1: Hospitals and Public Sector Clinics | Table 23.1: Health Facilities  Table 23.2: Beds in Inpatient Facilities | Previously, Table 24.1 reported both facilities and beds count together. These will now be reported in separate tables. |
| Table 24.2: Hospital Admissions and Public Sector Outpatient Attendances | Table 23.3 (revised): Hospital Admissions and Public Sector Outpatient Attendances | Figures are updated to reflect revised categories of hospitals. |
| Table 24.3: Hospital Admission Rate by Sex and Age | Table 23.4 (revised): Hospital Admission Rate by Sex and Age | Figures are updated to reflect revised categories of hospitals. |

**REVISIONS TO YOS 2016 TABLE 24.1**

New Table 23.1 “Health Facilities”

*Expanded Categories for Health Facilities.* In previous editions of the Yearbook of Statistics, the category “Hospitals” includes all acute hospitals, national specialty centres, psychiatric hospitals, community hospitals, and chronic sick units. The categorisation in the new Table 23.1 took into consideration the international classification of “Hospitals” [[1]](#footnote-1) and provides a more detailed breakdown of “Acute Hospitals”, “Psychiatric Hospitals” and “Community Hospitals”. “Acute Hospitals” comprise both general hospitals and specialised hospitals with inpatient facilities that provide acute care to patients. National specialty centres without inpatient facilities are no longer included as hospitals. The various categories of hospitals are further broken down into “Public”, “Not-for-Profit” and “Private”. A new category of “Residential Long-Term Care Facilities” is added with breakdown into “Nursing Homes” and “Inpatient Hospices”. These long-term care facilities are further classified into “Public”, “Not-for-Profit” and “Private”. Chronic sick units are now subsumed under “Nursing Homes” as they serve a similar function.

*Public and Non-Public Health Facilities.* Health facilities are broken down into “Public”, “Not-for-Profit” and “Private” categories, whereby the latter two are considered “Non-Public”. Taking into consideration OECD’s definitions, “Public” health facilities are those owned or controlled by a government unit or another public corporation (where control is defined as the ability to determine the general corporate policy). “Private” health facilities are those set up for the purpose of producing health goods and services and are capable of generating a profit or other financial gains for their owners. “Not-for-Profit” health facilities are those producing health goods and services, but are not permitted to be a source of income, profit or financial gain for the unit(s) that establish, control or finance them. In the local context, these are typically voluntary welfare organisations (VWOs). Health facilities are first sorted into the “Public” category if the criterion is met, and then the remainder are sorted into the “Private” and “Not-for-Profit” categories.

*Categorising Residential Health Facilities with Multiple Services.* Where a residential health facility provides more than one residential care service, the facility will be categorised based on its highest level of medical capability (LMC), provided the highest LMC beds make up at least 25% of total bed capacity. For example, a health facility providing both community hospital and chronic sick services will be categorised as “Community Hospital” if its number of community hospital beds is at least 25% of its total bed capacity.

A side-by-side comparison of the categories of residential health facilities in YOS 2016 and YOS 2017 is set out below:

|  |  |
| --- | --- |
| **Yearbook of Statistics 2016** | **Yearbook of Statistics 2017** |
| 1. Differentiates into only two categories of “Hospitals”. Hospitals    1. Public Sector (all general hospitals, specialised hospitals such as KK Women’s & Children’s Hospital (KKH), National Heart Centre (NHC) and Institute of Mental Health (IMH))    2. Private Sector (includes all community hospitals, chronic sick units, and other hospitals such as West Point Hospital and Adam Road Hospital)   Note: All community hospitals are considered “private”. Nursing Homes and Inpatient Hospices are not reported.  Note: Specialty centres without inpatient facilities (e.g. Singapore National Eye Centre (SNEC)) are included in “public sector”. | Differentiates into “Hospitals” and “Residential Long-Term Care Facilities”.  “Hospitals” are broken down into three categories, and three sub-categories.  Hospitals   1. Acute Hospitals    1. Public    2. Not-for-Profit    3. Private 2. Psychiatric Hospitals    1. Public    2. Not-for-Profit    3. Private 3. Community Hospitals    1. Public    2. Not-for-Profit    3. Private   Note: Specialty centres without inpatient facilities (e.g. SNEC) are excluded.  New category of “Residential Long-Term Care Facilities” added, and broken down into two categories and three sub-categories.  Residential Long-term Care Facilities   1. Nursing Homes    1. Public    2. Not-for-Profit    3. Private 2. Inpatient Hospices    1. Public    2. Not-for-Profit    3. Private |

*Clinics*. Previously, only polyclinics and public sector dental clinics are reported. In YOS 2017, “Primary Care Facilities” with breakdown into “Public - Polyclinics” and “Private - GP Clinics” are reported. “Dental Clinics” include those in the public sector, as well as private sector. Public sector dental clinics are further differentiated.

|  |  |  |
| --- | --- | --- |
| **Yearbook of Statistics 2016** | **Yearbook of Statistics 2017** | **Remarks** |
| Polyclinics | Primary Care Clinics   * Public - Polyclinic * Private - GP Clinics | GP clinics in the private sector are included. |
| Public Sector Dental Clinics | Dental Clinics  Public   * Polyclinic Dental Clinics * Hospital/Institution Dental Clinics * School Dental Clinics   Private | Dental clinics in the public sector are further differentiated.  Private sector dental clinics are included. |

New Table 23.2 “Beds in Inpatient Facilities”

*Expanded Categories for Inpatient Beds.* In previous editions of YOS, all inpatient beds operated by acute care hospitals were categorised as “Acute Care” beds, while those operated by psychiatric hospitals, community hospitals and chronic sick units were categorised collectively as “Extended Care” beds. The new Table 23.2 categorises inpatient beds in the same way as that for residential health facilities in Table 23.1, and further broken down into “Public”, “Not-for-Profit” and “Private” categories, whereby the latter two are considered “Non-Public”

*Categorising Inpatient Beds in Residential Facilities with Multiple Services.* Where a health facility provides more than one residential care service, the beds are counted under their respective service categories. For example, a facility providing both community hospital and inpatient hospice services will have the respective number of beds being reported under “Community Hospitals” and “Inpatient Hospices”. Beds for chronic sick services are reported under “Nursing Homes” beds.

A side-by-side comparison of the categories of inpatient beds in YOS 2016 and YOS 2017 is set out below:

|  |  |
| --- | --- |
| **Yearbook of Statistics 2016** | **Yearbook of Statistics 2017** |
| Differentiates “Hospital Beds” into only two categories, and two sub-categories.   1. Public    1. Acute Care  (beds operated by general hospitals, and specialised hospitals such as KKH and NHC)    2. Extended Care (beds operated by IMH) 2. Private    1. Acute Care    2. Extended Care (beds operated by community hospitals and chronic sick units, and other hospitals such as West Point and Adam Road) | Differentiates inpatient beds into “Hospitals” and “Residential Long-Term Care Facilities”.  “Hospital” beds are broken down into three categories, and three sub-categories.   1. Acute Hospitals    1. Public    2. Not-for-Profit } Non-Public    3. Private } 2. Psychiatric Hospitals    1. Public    2. Not-for-Profit    3. Private 3. Community Hospitals    1. Public    2. Not-for-Profit} Non-Public    3. Private }   New category of “Residential Long-Term Care Facilities” added, and broken down into two categories and three sub-categories.  Residential Long-term Care Facilities   1. Nursing Homes    1. Public    2. Not-for-Profit    3. Private 2. Inpatient Hospices    1. Public    2. Not-for-Profit    3. Private |

A mapping of beds in inpatient facilities from YOS 2016 to YOS 2017 is set out below:

| **Type of Inpatient Beds** | **Yearbook of Statistics 2016** | **Yearbook of Statistics**  **2017** |
| --- | --- | --- |
| Public Sector General Hospitals and Specialised Hospitals (e.g. National Heart Centre) | Public Sector – Acute Care | Acute Hospitals – Public |
| Private Sector Acute Hospitals | Private Sector – Acute Care | Acute Hospitals   * Not-for-Profit} Non-Public * Private } |
| Institute of Mental Health | Public Sector – Extended Care | Psychiatric Hospitals – Public |
| Other Private Hospitals | Private Sector – Extended Care | Psychiatric Hospitals or Community Hospitals   * Not-for-Profit} Non-Public * Private } |
| Community Hospitals (CH) | Private Sector – Extended Care | Community Hospitals   * Public * Not-for-Profit } Non-Public * Private } |
| Chronic Sick Beds in CHs | Private Sector – Extended Care | Residential Long-Term Care Facilities – Nursing Homes   * Public * Not-for-Profit * Private |
| Inpatient Hospice Beds in CHs | Private Sector – Extended Care | Residential Long-Term Care Facilities – Inpatient Hospices   * Public * Not-for-Profit * Private |
| Chronic Sick Units | Private Sector – Extended Care | Residential Long-Term Care Facilities – Nursing Homes   * Public * Not-for-Profit * Private |
| Nursing Homes | Not Reported | Residential Long-Term Care Facilities – Nursing Homes   * Public * Not-for-Profit * Private |
| Inpatient Hospices | Not Reported | Residential Long-Term Care Facilities – Inpatient Hospices   * Public * Not-for-Profit * Private |

**REVISIONS TO YOS 2016 TABLE 24.2 and TABLE 24.3**

*Inclusion criteria for “Hospital Admissions”.* In YOS 2016, data on “Hospital Admissions” refers to admissions to acute care, psychiatric, community, chronic sick units and other hospitals included in the definition of “Hospitals” in Table 24.1. In YOS 2017, admission data in Table 23.3 and Table 23.4 are provided for “Hospitals” in the same definition used in Table 23.1 and Table 23.2, except that “Community Hospital” admission data includes those for all categories of services it provides (i.e. community hospital (sub-acute and rehabilitation), chronic sick units and inpatient hospice).

**RECONCILIATION OF INPATIENT BED NUMBERS IN YEARBOOK OF STATISTICS 2016 AND YEARBOOK OF STATISTCS 2017**

Using data for 2009 and 2015 as illustrations, the tables below show how inpatient bed numbers are presented in YOS 2016 and YOS 2017.

**Yearbook of Statistics 2016**

In YOS2016, Private Sector Extended Care Beds include community hospitals beds, as well as chronic sick beds and inpatient hospice beds that are in Community Hospitals.

In YOS2017, beds previously reported under Private Sector Extended Care have been reclassified by service, as well as by sector. For 2009 data, 326 beds have been reclassified as Nursing Home beds as they were for chronic sick service, and 32 beds have been reclassified as Inpatient Hospice beds. For 2015 data, 192 beds have been reclassified Nursing Home beds as they were for chronic sick service, and 40 beds have been reclassified as Inpatient Hospice beds. Beds under BVH, YCH and JCH are also reclassified as Public sector.

|  |  |  |
| --- | --- | --- |
|  | **2009** | **2015** |
| Hospital Beds | 11564 | 13490 |
| Acute Care | 8289 | 9844 |
| Extended Care | 3275 | 3646 |
| Public Sector | 8456 | 10078 |
| Acute Care | 6416 | 8128 |
| Extended Care | 2040 | 1950 |
| Private Sector |  |  |
| Acute Care | 1873 | 1716 |
| Extended Care | 1235 | 1696 |
|  |  |  |

**Yearbook of Statistics 2017**

New Category – Previously not reported.

|  |  |  |
| --- | --- | --- |
|  | **2009** | **2015** |
| Hospitals | 11206 | 13258 |
| Acute Hospitals | 8289 | 9844 |
| Public | 6416 | 8128 |
| Non-Public | 1873 | 1716 |
| Psychiatric Hospitals | 2040 | 1950 |
| Public | 2040 | 1950 |
| Non-Public | - | - |
| Community Hospitals | 877 | 1464 |
| Public | - | 503 |
| Non-Public | 877 | 961 |
|  |  |  |
| Residential Long-Term Care Facilities | 9571 | 12326 |
| Nursing Homes | 9442 | 12185 |
| Public |  | 2488 |
| Not-for-Profit | 6262 | 5802 |
| Private | 3180 | 3895 |
| Inpatient Hospices | 129 | 141 |
| Public | 32 | 40 |
| Not-for-Profit | 97 | 101 |

Note: Statistics for 2016, which is newly released in YOS 2017, follows the new classification. Hence, it is not reconciled with statistics published previously.

**TIME SERIES COMPARISON**

The graphs below show how the trends in inpatient bed numbers are represented in YOS 2016 and YOS 2017 after the change in classification.

Note: Statistics for 2016, which is newly released in YOS 2017, follows the new classification.

(4a)

(3a)

(2a)

(1a)

(4b)

(3b)

(2b)

(1b)

|  |  |  |
| --- | --- | --- |
| **YOS 2016** | **YOS 2017** | **Comparisons** |
| Public Sector Hospital - Acute Care | Acute Hospitals - Public | No change in the trends. The definition of Public Acute Care Hospitals did not change. |
| Private Sector Hospital - Acute Care | Acute Hospitals – Non-Public | No change in trends. Non-Public Acute Hospitals include both “Private” and “Not-for-Profit” Acute Hospitals. They were previously all reported as Private Sector Hospital-Acute Care.  Both time series show a drop in bed numbers in 2010, when licensed bed numbers was changed to reflect actual bed complement while previously it reflected the maximum bed capacity achievable. |
| Public Sector Hospital - Extended Care | Psychiatric Hospitals - Public | No change in trends. The Institute of Mental Health (IMH) was previously tracked under Public Sector Hospital – Extended Care. IMH is now more clearly categorised as Psychiatric Hospital – Public. |
| Private Sector Hospital - Extended Care | Community Hospitals – Public/Non-Public | Both trend lines essentially tracked beds operated by Community Hospitals. However, the trend line plotted for the statistics in YOS 2017 shows a slight shift downwards. This is due to the Chronic Sick beds and Inpatient Hospice beds in Community Hospitals being reported by service in the category of Residential Long-Term Care Facilities. Only beds providing the Community Hospital service are reported in the category of Community Hospital – Public/Non-Public. |

MINISTRY OF HEALTH

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1. OECD’s International Classification of Health Accounts (ICHA) – Categories of Health Providers (HP) [↑](#footnote-ref-1)