

Appendix 1 – Defining Valid Index Hospitalizations

We defined a valid index hospitalization as any hospitalization episode that met the following criteria:

1. At least one of the separations was emergent/urgent.
 2. Admit to variable was not in an emergency department, outpatient department (OPD), or day surgery.
 3. None of the separations were related to pregnancy or birth.
 4. The final discharge in an episode was to a community setting (i.e. not to a long-term care institution, OPD, other non-acute care institution or a psychiatric hospital).
 5. The most responsible discharge diagnosis for any of the separations in the episode was not a psychiatric condition (main patient service=64, or most responsible diagnosis of a psychiatric condition: ICD-10 codes of F00-F99).
 6. The *discharge disposition* variable was not 06 (sign out) or 12 (did not return from pass).
- Hospitalizations involving patients who died were considered invalid index hospitalizations because their death would make repeat admission impossible.
 - Hospitalizations involving persons who left hospital against medical advice were considered invalid index hospitalizations because re-admission rates in this situation have been shown to be systematically higher than normal^{42,43}.
 - Hospitalizations involving patients entering a hospital for obstetric reasons were not considered valid index hospitalizations because obstetric patients have a fundamentally different set of medical issues which should be considered separately from the general population.
 - Hospitalizations involving patients admitted from/discharged to a nursing home, long term care facility or palliative care facility were considered invalid index hospitalizations because this study was focused on the effect of community of residence on unplanned repeat hospitalizations. Patients living in long-term care facilities are subject to different norms than the wider community and should be considered separately.
 - Hospitalizations involving patients admitted to the hospital with a psychiatric condition as their most responsible diagnosis were considered an invalid index hospitalization since major psychiatric conditions requiring hospitalization are at high risk for extended and frequent admissions to hospital, and represent a unique population requiring separate study. However, hospitalizations with mental health conditions coded as secondary diagnoses were included.