

Real-World healthcare resource utilization and cost by relapse frequency among US patients with schizophrenia and schizoaffective disorder

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Background

- Schizophrenia and schizoaffective disorder are complex psychiatric conditions that are associated with substantial decrements in quality of life, healthcare resource utilization (HCRU), and costs.^{1,2}
- Relapse, defined as acute exacerbations of symptoms, is common in schizophrenia and schizoaffective disorder.
- Gaps exist in our knowledge related to the extent of healthcare utilization and costs for patients experiencing relapses.³ Moreover, it is unknown if HCRU and cost patterns differ between patients with commercial, Medicare Advantage, and Medicaid insurance.

Objectives

- To examine HCRU and costs among patients with schizophrenia and schizoaffective disorder by relapse frequency in three US payor populations (commercial, Medicare, and Medicaid).

Methods

- Patients ≥ 12 years with naïve schizophrenia or schizoaffective disorder (the earliest date is the index date) between 01/01/2014 and 08/31/2020 and continuous medical and pharmacy enrollment for one year before (baseline) and after index date (post-index) were identified from the Healthcare Integrated Research Database (HIRD®) (Figure 1).

Figure 1. Patient selection

	Commercial N	Medicare N	Medicaid N	
1	30,855,158	30,855,158	4,886,682	Patients in the Healthcare Integrated Research Database (HIRD®) during the patient identification period (01/01/2014 and 08/31/2020).
2	45,161	45,161	30,068	From Step 1, patients with ≥ 1 inpatient/ER claim or ≥ 2 outpatient claims (≥ 30 days and ≤ 183 days apart) with a diagnosis of schizophrenia or schizoaffective disorder ¹ during the patient identification period. Set the first diagnosis as the index date.
3	22,952	22,209	N/A	From Step 2, patients with Commercial or Medicare insurance on index date.
4	22,860	22,150	29,638	From Step 3, patients between 12 and 94 years on the index date.
5	21,351	16,844	27,291	From Step 4, patients without a neurocognitive disorder ² during the study period (01/01/2013 to 08/31/2021).
6	17,412	14,022	22,983	From Step 5, those without a diagnosis of schizophrenia or schizoaffective disorder prior to the index date.
7	7,609	2,310	6,301	From Step 6, patients with ≥ 1 year of continuous medical and pharmacy enrollment prior to the index date.
8	4,974	1,660	4,858	From Step 7, patients with ≥ 1 year of continuous medical and pharmacy enrollment after the index date.
8a	3,726	1,178	3,048	Within Step 8, patients with 0 relapses during the post-index period.
8b	828	268	942	Within Step 8, patients with 1 relapse during the post-index period.
8c	420	214	868	Within Step 8, patients with ≥ 2 relapses during the post-index period.

¹ Schizophrenia and schizoaffective disorder (ICD-9-CM codes are 295.x and ICD-10-CM are F20.x and F25.x).
² Neurocognitive disorders (ICD-9-CM codes are 290.0-290.9 and ICD-10-CM are F01-F03, F05.0-05.9, F06.0-06.9, F07.0-07.9, F09.0-09.9, F10.0-10.9, F11.0-11.9, F12.0-12.9, F13.0-13.9, F14.0-14.9, F15.0-15.9, F16.0-16.9, F17.0-17.9, F18.0-18.9, F19.0-19.9, F20.0-20.9, F21.0-21.9, F22.0-22.9, F23.0-23.9, F24.0-24.9, F25.0-25.9, F26.0-26.9, F27.0-27.9, F28.0-28.9, F29.0-29.9, F30.0-30.9, F31.0-31.9, F32.0-32.9, F33.0-33.9, F34.0-34.9, F35.0-35.9, F36.0-36.9, F37.0-37.9, F38.0-38.9, F39.0-39.9, F40.0-40.9, F41.0-41.9, F42.0-42.9, F43.0-43.9, F44.0-44.9, F45.0-45.9, F46.0-46.9, F47.0-47.9, F48.0-48.9, F49.0-49.9, F50.0-50.9, F51.0-51.9, F52.0-52.9, F53.0-53.9, F54.0-54.9, F55.0-55.9, F56.0-56.9, F57.0-57.9, F58.0-58.9, F59.0-59.9, F60.0-60.9, F61.0-61.9, F62.0-62.9, F63.0-63.9, F64.0-64.9, F65.0-65.9, F66.0-66.9, F67.0-67.9, F68.0-68.9, F69.0-69.9, F70.0-70.9, F71.0-71.9, F72.0-72.9, F73.0-73.9, F74.0-74.9, F75.0-75.9, F76.0-76.9, F77.0-77.9, F78.0-78.9, F79.0-79.9, F80.0-80.9, F81.0-81.9, F82.0-82.9, F83.0-83.9, F84.0-84.9, F85.0-85.9, F86.0-86.9, F87.0-87.9, F88.0-88.9, F89.0-89.9, F90.0-90.9, F91.0-91.9, F92.0-92.9, F93.0-93.9, F94.0-94.9, F95.0-95.9, F96.0-96.9, F97.0-97.9, F98.0-98.9, F99.0-99.9, G00.0-00.9, G01.0-01.9, G02.0-02.9, G03.0-03.9, G04.0-04.9, G05.0-05.9, G06.0-06.9, G07.0-07.9, G08.0-08.9, G09.0-09.9, G10.0-10.9, G11.0-11.9, G12.0-12.9, G13.0-13.9, G14.0-14.9, G15.0-15.9, G16.0-16.9, G17.0-17.9, G18.0-18.9, G19.0-19.9, G20.0-20.9, G21.0-21.9, G22.0-22.9, G23.0-23.9, G24.0-24.9, G25.0-25.9, G26.0-26.9, G27.0-27.9, G28.0-28.9, G29.0-29.9, G30.0-30.9, G31.0-31.9, G32.0-32.9, G33.0-33.9, G34.0-34.9, G35.0-35.9, G36.0-36.9, G37.0-37.9, G38.0-38.9, G39.0-39.9, G40.0-40.9, G41.0-41.9, G42.0-42.9, G43.0-43.9, G44.0-44.9, G45.0-45.9, G46.0-46.9, G47.0-47.9, G48.0-48.9, G49.0-49.9, G50.0-50.9, G51.0-51.9, G52.0-52.9, G53.0-53.9, G54.0-54.9, G55.0-55.9, G56.0-56.9, G57.0-57.9, G58.0-58.9, G59.0-59.9, G60.0-60.9, G61.0-61.9, G62.0-62.9, G63.0-63.9, G64.0-64.9, 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N29.0-29.9, N30.0-30.9, N31.0-31.9, N32.0-32.9, N33.0-33.9, N34.0-34.9, N35.0-35.9, N36.0-36.9, N37.0-37.9, N38.0-38.9, N39.0-39.9, N40.0-40.9, N41.0-41.9, N42.0-42.9, N43.0-43.9, N44.0-44.9, N45.0-45.9, N46.0-46.9, N47.0-47.9, N48.0-48.9, N49.0-49.9, N50.0-50.9, N51.0-51.9, N52.0-52.9, N53.0-53.9, N54.0-54.9, N55.0-55.9, N56.0-56.9, N57.0-57.9, N58.0-58.9, N59.0-59.9, N60.0-60.9, N61.0-61.9, N62.0-62.9, N63.0-63.9, N64.0-64.9, N65.0-65.9, N66.0-66.9, N67.0-67.9, N68.0-68.9, N69.0-69.9, N70.0-70.9, N71.0-71.9, N72.0-72.9, N73.0-73.9, N74.0-74.9, N75.0-75.9, N76.0-76.9, N77.0-77.9, N78.0-78.9, N79.0-79.9, N80.0-80.9, N81.0-81.9, N82.0-82.9, N83.0-83.9, N84.0-84.9, N85.0-85.9, N86.0-86.9, N87.0-87.9, N88.0-88.9, N89.0-89.9, N90.0-90.9, N91.0-91.9, N92.0-92.9, N93.0-93.9, N94.0-94.9, N95.0-95.9, N96.0-96.9, N97.0-97.9, N98.0-98.9, N99.0-99.9, O00.0-00.9, O01.0-01.9, O02.0-02.9, O03.0-03.9, O04.0-04.9, O05.0-05.9, O06.0-06.9, O07.0-07.9, O08.0-08.9, O09.0-09.9, O10.0-10.9, O11.0-11.9, O12.0-12.9, O13.0-13.9, O14.0-14.9, O15.0-15.9, O16.0-16.9, O17.0-17.9, O18.0-18.9, O19.0-19.9, O20.0-20.9, O21.0-21.9, O22.0-22.9, O23.0-23.9, O24.0-24.9, O25.0-25.9, O26.0-26.9, O27.0-27.9, O28.0-28.9, O29.0-29.9, O30.0-30.9, O31.0-31.9, O32.0-32.9, O33.0-33.9, O34.0-34.9, O35.0-35.9, O36.0-36.9, O37.0-37.9, O38.0-38.9, O39.0-39.9, O40.0-40.9, O41.0-41.9, O42.0-42.9, O43.0-43