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Urologic Diseases in America

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Urologic Diseases in America

ANNUAL DATA REPORT

Healthcare Expenditures of Urologic Diseases

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Note

This document is one of the eight that collectively comprise the 2025 *Urologic Diseases in America: Annual Data Report (ADR)*. This document reports and discusses findings on Healthcare Expenditures of Urologic Diseases. Other topics in the 2025 ADR are Introduction and Methods; Benign Prostatic Hyperplasia and Associated Lower Urinary Tract Symptoms (BPH/LUTS); Urinary Stone Disease (USD); Urinary Incontinence (UI); Urologic Chronic Pelvic Pain Syndrome (UCPPS); Urethral Stricture Disease; and Fournier's Gangrene (FG). These analyses are available as separate documents on the UDA website. Additional details on the methodology and data sources are provided in Appendices A and B, respectively, in the Introduction and Methods document.

Suggested citation

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Healthcare Expenditures of Urologic Diseases

Main Takeaways

- In 2023, among the prevalent cohort aged 65 and older, benign prostatic hyperplasia and associated lower urinary tract symptoms (BPH/LUTS), urinary stone disease (USD), urinary incontinence (UI), urethral stricture disease, and urologic chronic pelvic pain syndrome (UCPPS) Medicare fee-for-service (FFS) expenditures were $1.4 billion, $1.1 billion, $488 million, $50 million, and $29 million, respectively, amounting to a combined $3.1 billion.
- In 2023, among the prevalent cohort aged 65 and older, USD, urethral stricture disease, and BPH/LUTS registered the highest average expenditures per patient ($971, $540, and $396, respectively); followed by UI ($312) and UCPPS ($203).
- From 2016 to 2023, outpatient services contributed to a rising share of total spending.
- For UCPPS, average expenditures per patient for women were more than twice those for men ($340 compared to $139 in 2023). The results are similar for urethral stricture disease ($591 compared to $286 in 2023).

1 Overview

This document presents estimates for total Medicare fee-for-service (FFS) expenditures on several major urologic conditions in the United States for those aged 65 and older: benign prostatic hyperplasia and associated lower urinary tract symptoms (BPH/LUTS); urinary stone disease (USD); urinary incontinence (UI); urethral stricture disease; and urologic chronic pelvic pain syndrome (UCPPS), including interstitial cystitis/bladder pain syndrome (IC/BPS) and chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS).[1]

In this document, expenditure is characterized as reported healthcare utilization spending associated with primary diagnosis of each condition. Specifically, this document reports expenditures (in nominal dollars) on Medicare FFS claims, which include Medicare payment amount, beneficiary payment amount, and payment made by third-party insurers when Medicare is not the primary

payer. Expenditure as reported here does not include spending on Part D prescription drugs. See 2025 Methods document for methodological details.

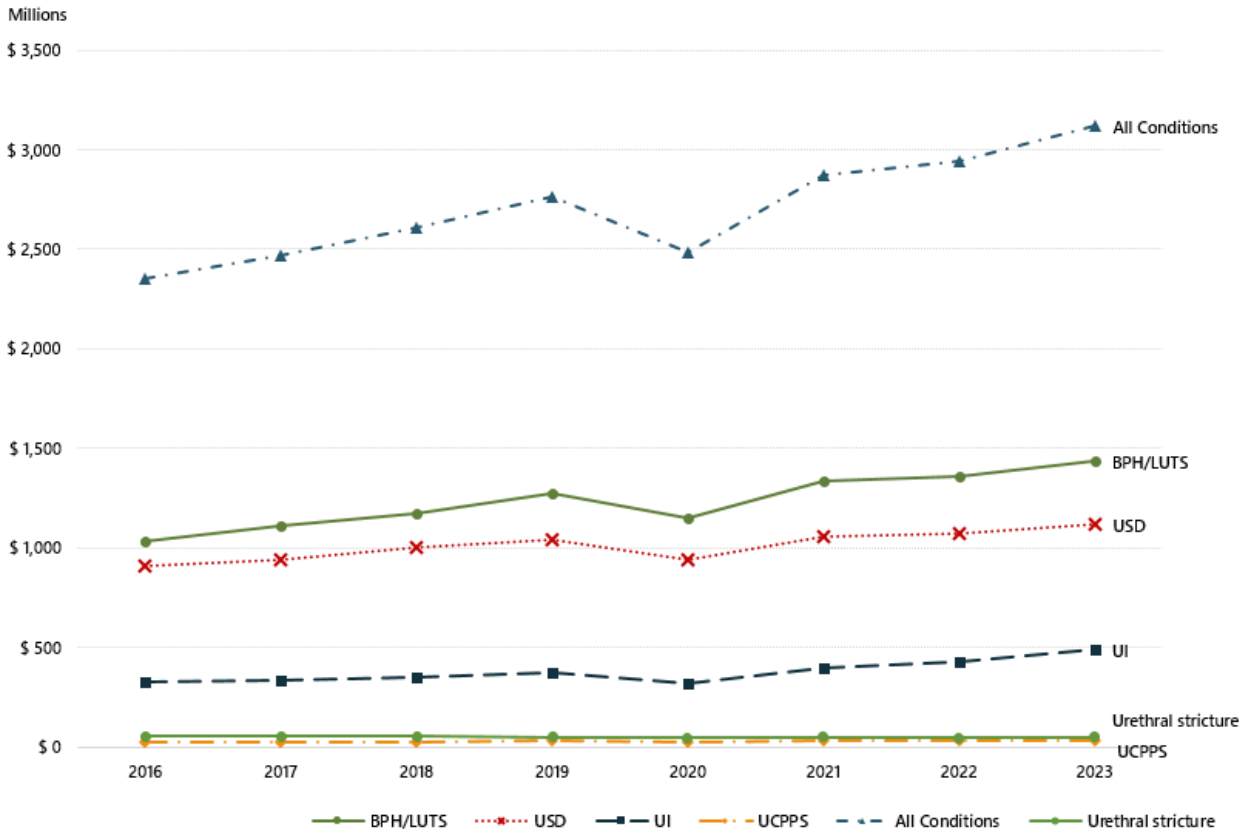
The results are reported as total annual expenditures and average expenditures per patient per year; and both metrics are reported separately for the prevalent cohort and the incident cohort (see 2025 Methods document for the definition of cohorts). For the prevalent cohort, total annual expenditures are stratified by sites of service: inpatient services, emergency department (ED) services, outpatient services (including hospital outpatient and ambulatory surgical centers), physicians' office services, and all other services.[2] Spending on the prevalent cohort helps capture spending among all (primary) diagnoses associated with persons recorded with the disease of interest in each calendar year, while spending for the incident cohort helps capture spending that is more directly tied to expenses in a window immediately following incident diagnosis (e.g., expenses associated with the diagnostic work-up). Further, the main metrics are stratified by age, race/ethnicity, region, dual Medicare and Medicaid eligibility status, and sex.

Section 2 reports expenditure results for each condition of interest. Section 3 discusses our results and their implications.

2 Results

In 2023, among the prevalent cohort aged 65 and older, BPH/LUTS; USD; UI; urethral stricture disease; and UCPPS expenditures were $1.4 billion, $1.1 billion, $488 million, $50 million, and $29 million, respectively; amounting to a combined $3.1 billion (Figure 1). Among the incident cohort aged 65 and older, BPH/LUTS; USD; UI; urethral stricture disease; and UCPPS expenditures were $205 million, $425 million, $132 million, $21 million, and $10 million, respectively; amounting to a combined $793 million. The following subsections report selected results for each condition.

Figure 1. Medicare FFS total expenditures for prevalent cohort, by condition (2016-2023)



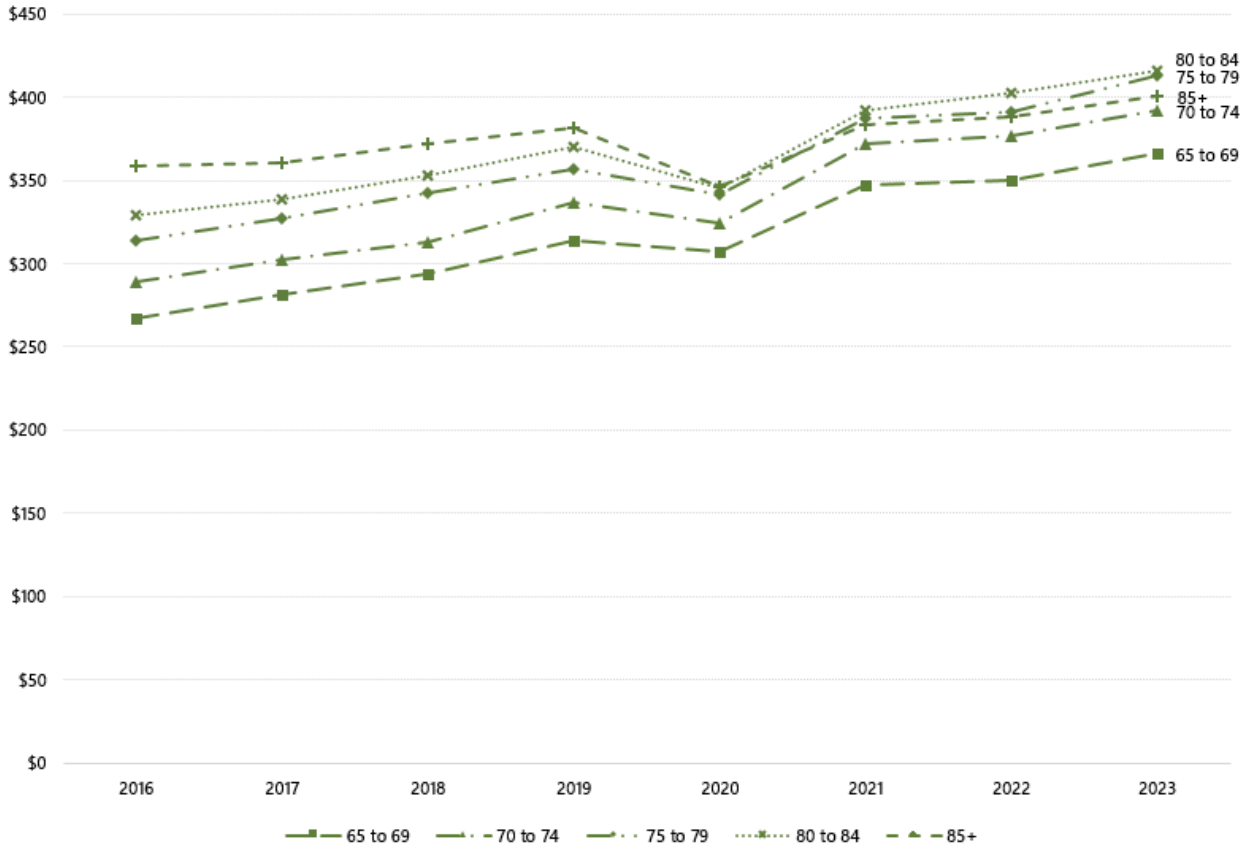
Notes: Total FFS expenditures with primary diagnosis of the given condition. Units denote nominal dollars. "All Conditions" denotes sum of expenditures across all five conditions in each year.

➔ Benign prostatic hyperplasia and associated lower urinary tract symptoms (BPH/LUTS)

○ Prevalent cohort spending

For patients aged 65 and older with BPH/LUTS, total expenditures (in nominal dollars) associated with services that were submitted with a primary diagnostic code of BPH/LUTS were approximately $1.2 billion annually from 2016 to 2023. Expenditure per patient averaged $346 annually during the same period. Expenditure per patient tended to be higher for older age subgroups (Figure 2). In 2023, average expenditure per patient was highest for the 80-84 age group ($415), followed by the 75-79 and 85 and older age groups ($413 and $401, respectively). Expenditure per patient for Whites aged 65 and older in 2023 was $400 compared to $355, $291, and $423 for Blacks, Asians, and Hispanics, respectively. Expenditure per patient was higher in the West ($464; 2023) and Northeast ($405) compared to the Midwest ($385) and South ($362).

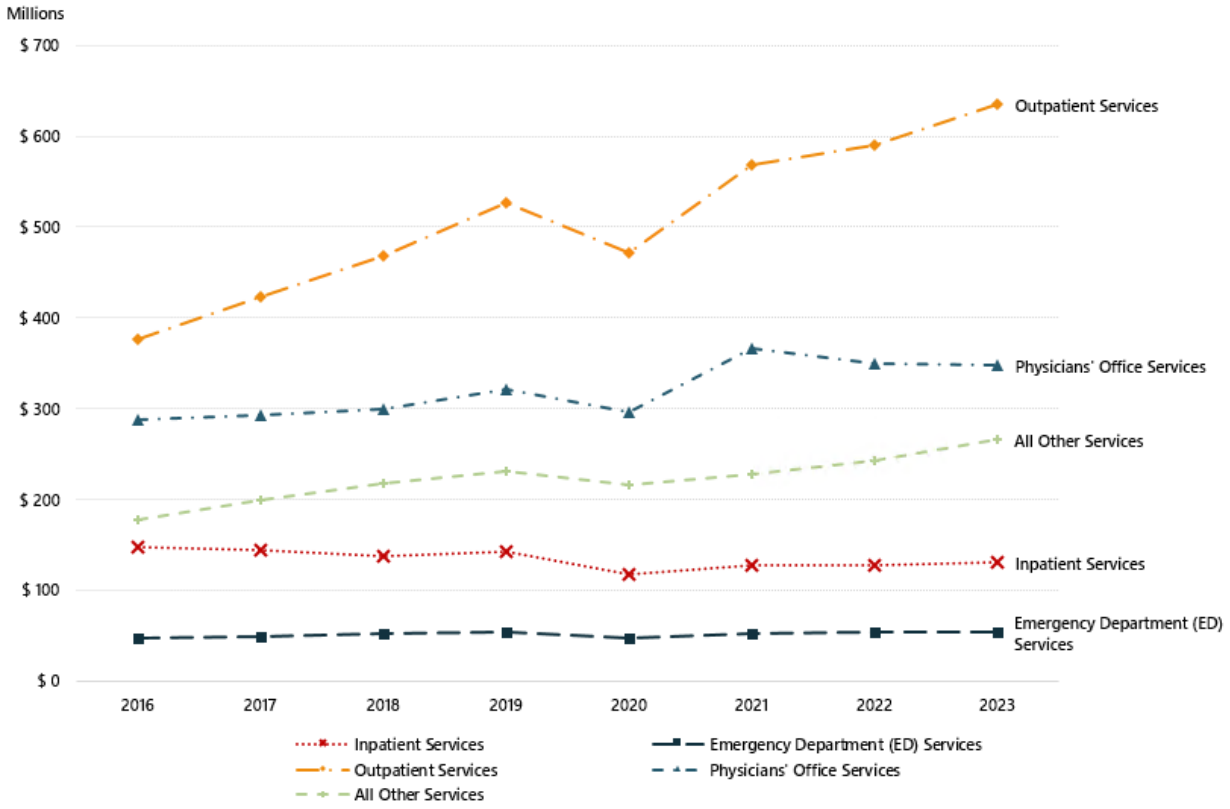
Figure 2. Average Medicare FFS expenditure per patient, by age, prevalent BPH/LUTS cohort (2016-2023)



Note: Numerator denotes total FFS expenditures with primary diagnosis of BPH/LUTS. Denominator denotes number of patients aged 65 and older with BPH/LUTS in each year. Units denote nominal dollars.

In 2023, outpatient services had the largest share of all total annual expenditures (44%, $634 million, Figure 3). Physicians' office services also accounted for 24% of total expenditures in 2023 ($348 million, Figure 3). The share of annual expenditures accounted for by outpatient services increased from 36% in 2016 to 44% in 2023.

Figure 3. Medicare FFS expenditures for prevalent BPH/LUTS cohort, by site of service (2016-2023)



Notes: Medicare FFS expenditures with primary diagnosis of BPH/LUTS, by site of service. Units denote nominal dollars.

○ Incident cohort spending

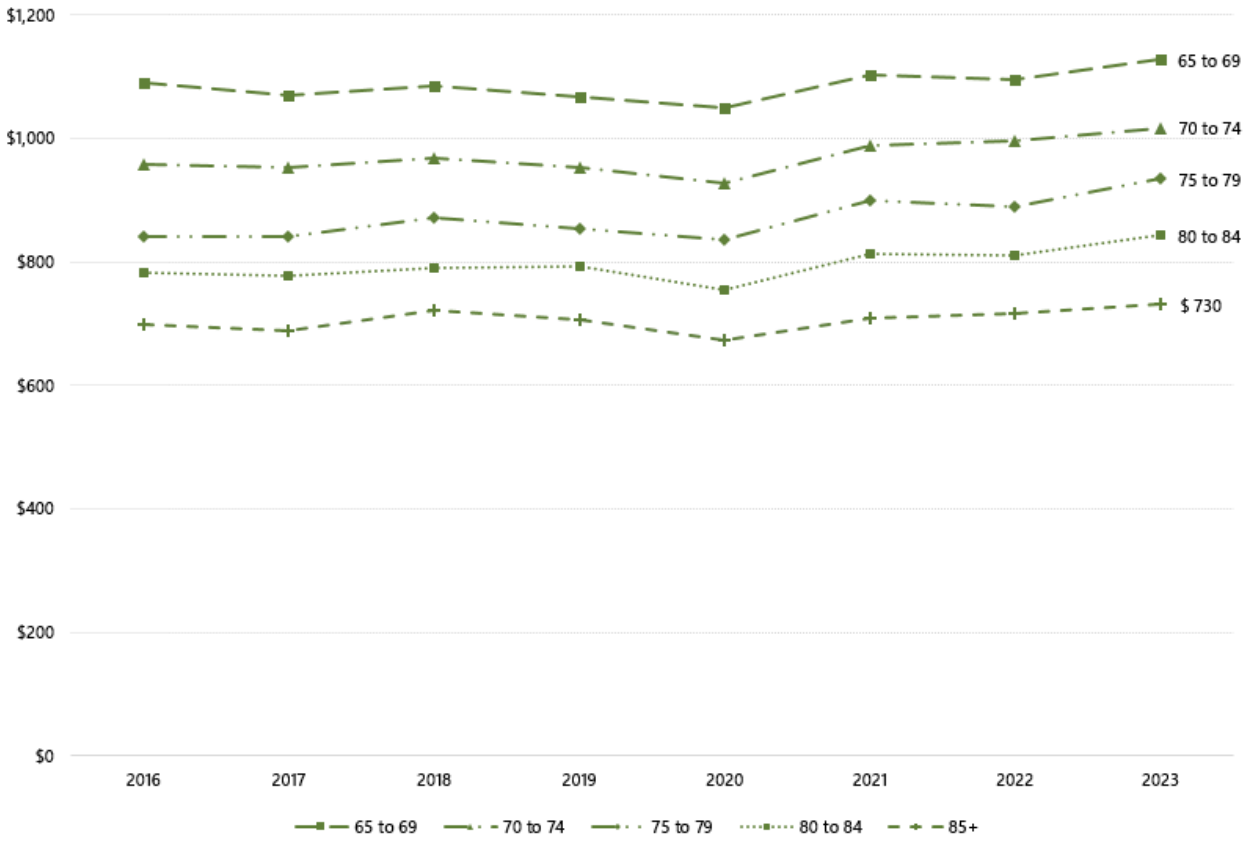
For patients aged 65 and older with an incident diagnosis of BPH/LUTS, total expenditures (in nominal dollars) associated with services that were submitted with a primary diagnosis of BPH/LUTS within 12 months after initial diagnosis were approximately $195 million annually from 2016 to 2022. Average expenditure per patient with incident BPH/LUTS tended to be higher for older age subgroups.

➔ Urinary stone disease (USD)

○ Prevalent cohort spending

For patients aged 65 and older with USD, total expenditure (in nominal dollars) associated with a primary diagnostic code of USD amounted to approximately $1 billion annually from 2016 to 2023. Expenditure per patient averaged $932 annually during the same period. Expenditure per patient tended to be lower for older age subgroups (Figure 4). In 2023, expenditure per patient was highest for the 65-69 age group ($1,127), followed by the 70-74 and 75-79 age groups ($1,017 and $934). Expenditures per patient for men and women were $916 and $1,058, respectively, in 2023. Expenditure per patient for Whites aged 65 and older ($985; 2023) was higher compared to Blacks, Asians, and Hispanics. Expenditure per patient was higher in the Midwest ($1,123; 2023) and West ($1,061) compared to the Northeast ($946) and South ($869).

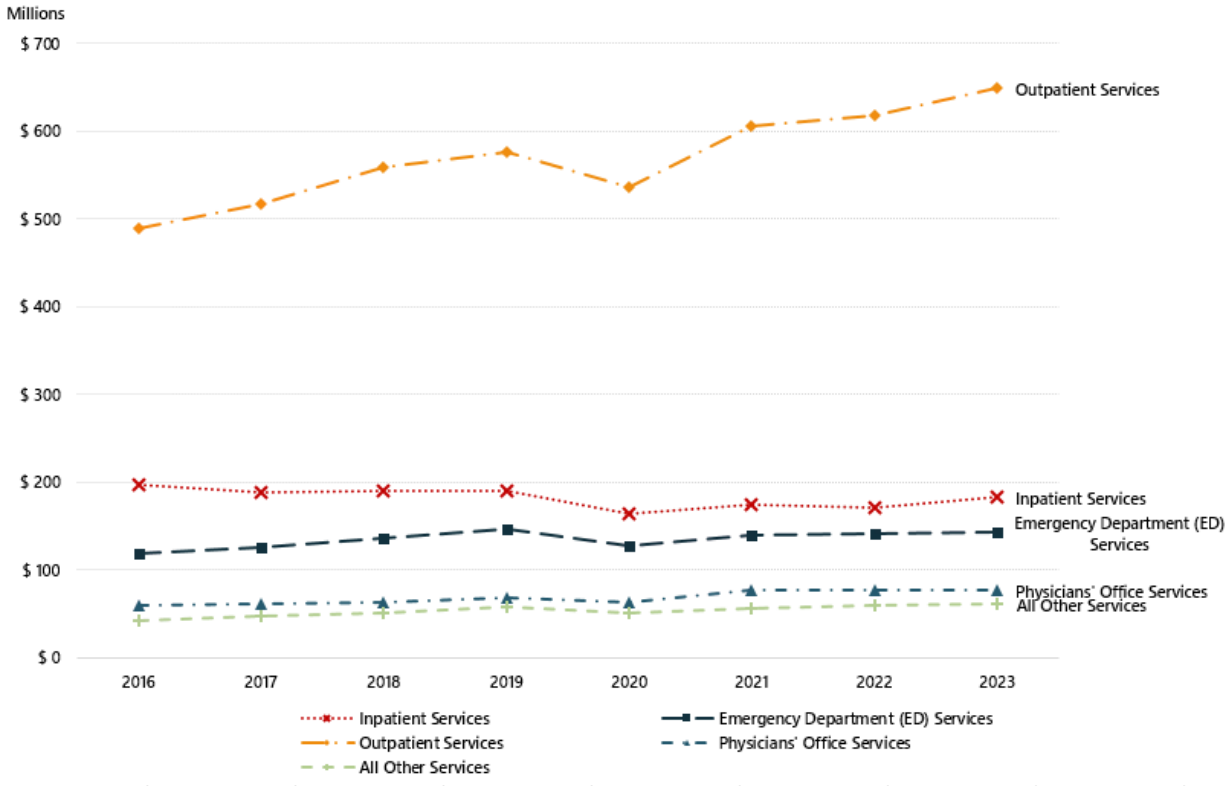
Figure 4. Average Medicare FFS expenditure per patient, by age, prevalent USD cohort (2016-2023)



Note: Numerator denotes total FFS expenditures with primary diagnosis of USD. Denominator denotes number of patients aged 65 and older with USD in each year. Units denote nominal dollars.

In 2023, outpatient services had the largest share of all total annual expenditures (58%, $650 million). Inpatient, ED, and physicians' office services accounted for 16% ($183 million), 13% ($143 million), and 7% ($77 million) of total expenditures, respectively (Figure 5). The share of annual expenditures accounted for by outpatient services increased from 54% in 2016 to 58% in 2023.

Figure 5. Medicare FFS expenditure for prevalent USD cohort, by site of service (2016-2023)



Note: Medicare FFS expenditures with primary diagnosis of USD, by site of service. Units denote nominal dollars.

Incident cohort spending

Among patients aged 65 and older with incident USD, total expenditure (in nominal dollars) associated with a primary diagnosis of USD within 12 months after initial diagnosis amounted to approximately $395 million annually during 2016-2022. Expenditure per patient with incident USD 12 months after initial diagnosis was stable during 2016-2022, averaging $1,212 annually.

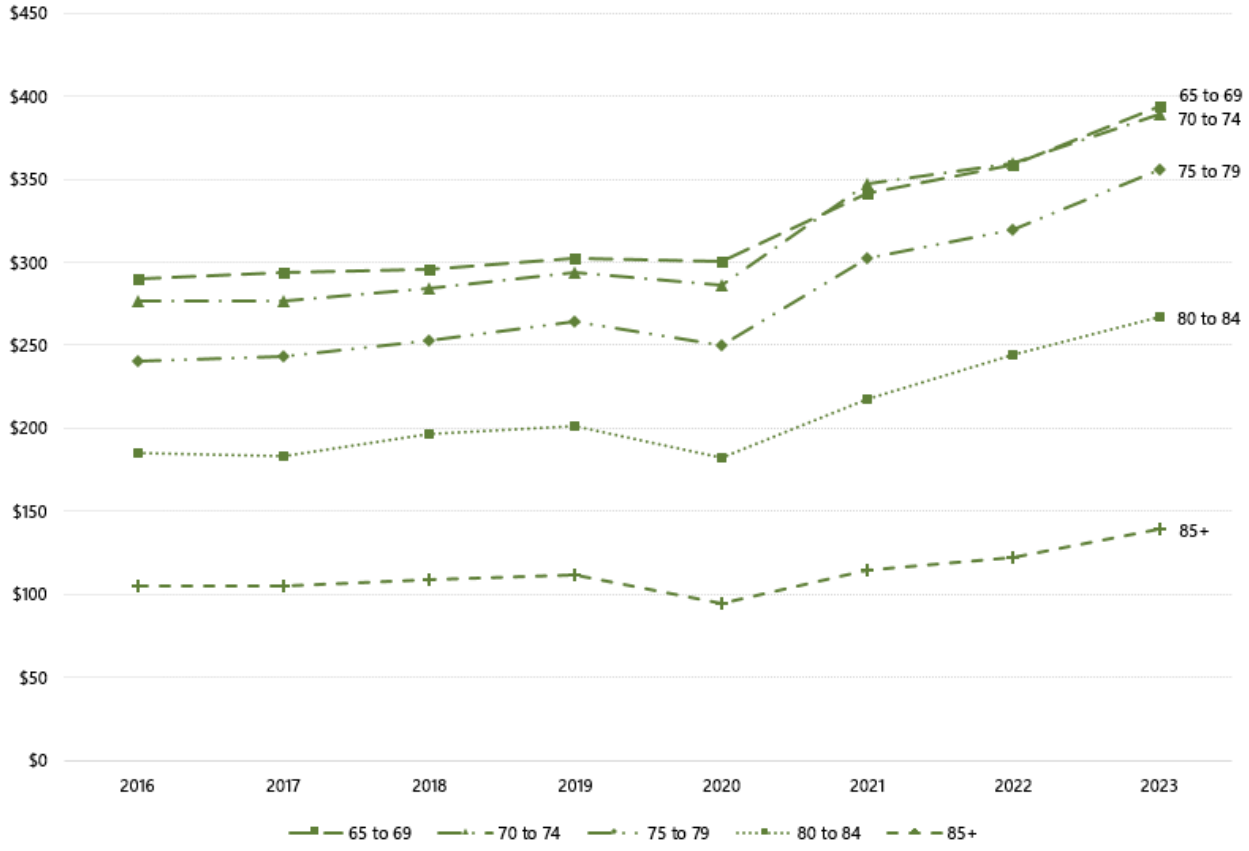
➔ Urinary incontinence (UI)

○ Prevalent cohort spending

For patients aged 65 and older with UI, total expenditures (in nominal dollars) associated with services that were submitted with a primary diagnostic code of UI amounted to approximately $379 million annually from 2016 to 2023. Expenditure per patient averaged $249 annually during the same period.

Expenditure per patient tended to be lower for older-age subgroups (Figure 6). In 2023, the expenditure per patient was higher for the 65-69 ($394) and 70-74 ($390) age groups compared to other age groups. Expenditures per patient for men and women were similar ($301 and $317 in 2023, respectively). The expenditure per patient for Whites aged 65 and older ($324; 2023) was greater than Blacks ($222), Asians ($133), and Hispanics ($204). Expenditure per patient was highest in the South ($338; 2023) compared to the West ($318), Midwest ($312), and Northeast ($248).

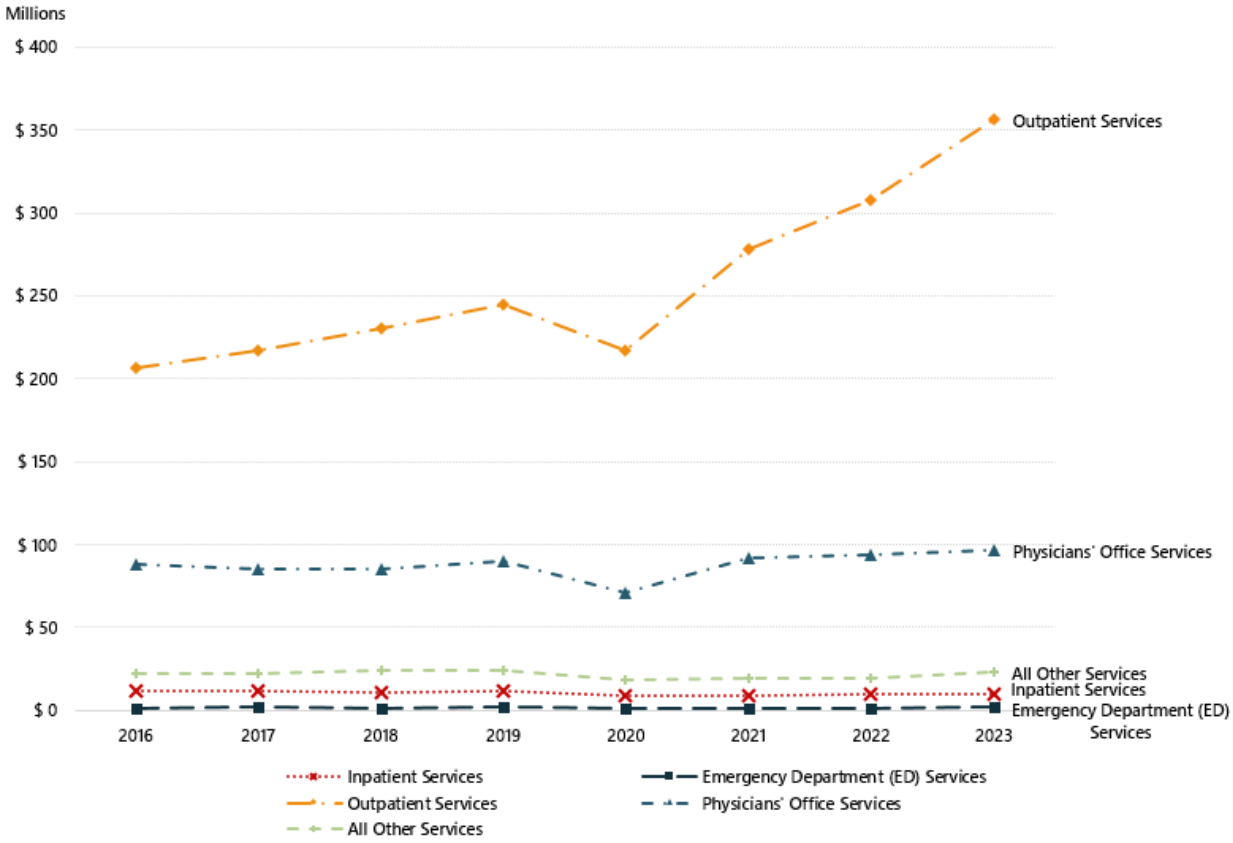
Figure 6. Average Medicare FFS expenditure per patient, by age, prevalent UI cohort (2016-2023)



Note: Numerator denotes total FFS expenditures with primary diagnosis of UI. Denominator denotes number of patients aged 65 and older with UI in each year. Units denote nominal dollars.

In 2023, outpatient services had the largest share of all total annual expenditures 73% ($356 million, Figure 7). Physicians' office services accounted for 20% ($96 million, Figure 7). The share of annual expenditures accounted for by outpatient services increased from 63% in 2016 to 73% in 2023.

Figure 7. Medicare FFS expenditure for prevalent UI cohort, by site of service (2016-2023)



Note: Medicare FFS expenditures with primary diagnosis of UI, by site of service. Units denote nominal dollars.

Incident cohort spending

For patients aged 65 and older with an incident diagnosis of UI, total expenditures (in nominal dollars) associated with services that were submitted with a primary diagnosis of UI within 12 months after initial diagnosis amounted to approximately $108 million annually from 2016 to 2022. The expenditure per patient with incident UI increased from $188 in 2016 to $251 in 2022.

➔ Urethral stricture disease

- **Prevalent cohort spending**

Among patients aged 65 and older with urethral stricture, total expenditure (in nominal dollars) associated with a primary diagnostic code of urethral stricture disease amounted to approximately $50 million annually from 2016 to 2023. In 2023, approximately 91% of expenditures were accounted for by male patients aged 65 and older, while the other 9% were accounted for by female patients aged 65 and older.

Expenditure per patient for men was more than twice that for women ($591 compared to $286 in 2023). In 2023, expenditure per male patient ranged between $504 and $672 for all the age groups. Similarly, for female patients, expenditure ranged between $230 and $314 for all the age groups. In 2023, outpatient services had the largest share of all total annual expenditures (67%, $30 million) for men. For men in 2023, and inpatient services and physicians' office services also accounted for 14% ($7 million) and 12% ($6 million) of total expenditures, respectively. In 2023, outpatient services had the largest share of all total annual expenditures (63%, $3 million) for women. For women in 2023, physicians' office services and inpatient services also accounted for 25% ($1 million) and 7% ($0.3 million) of total expenditures, respectively.

- **Incident cohort spending**

For patients aged 65 and older with incident urethral stricture disease, total expenditures (in nominal dollars) associated with services that were submitted with a primary diagnosis of urethral stricture disease within 12 months after initial diagnosis were on average $22 million annually from 2016 to 2022. The total annual average expenditures for men and women were $19 and $3 million, respectively. Expenditure per male patient with incident UCPPS ranged from $613 to $726 between 2016 and 2022. The average expenditure per female patient ranged from $304 to $349 between 2016 and 2022.

➔ Urologic chronic pelvic pain syndrome (UCPPS, including IC/BPS and CP/CPPS)

- **Prevalent cohort spending**

Among patients aged 65 and older with UCPPS, total expenditure (in nominal dollars) associated with a primary diagnostic code of UCPPS amounted to approximately $28 million annually from 2016 to 2023. In 2023, approximately 62% of expenditures were accounted for by patients aged 65 and older with IC/BPS, while the other 38% were accounted for by patients aged 65 and older with CP/CPPS.[3]

In 2023, expenditure per patient ranged between $195 and $218 for all the age groups. Expenditure per patient for women was more than twice that for men ($340 compared to $139 in 2023). This is

driven by compositional and per patient expenditure differences in its two sub-conditions: IC/BPS and CP/CPPS. Expenditure per-patient with IC/BPS is higher than that for patients with CP/CPPS ($356 compared to $118 in 2023). Compositionally, expenditures for women includes IC/BPS only; while for men they include both IC/BPS and CP/CPPS. Further, for men, IC/BPS accounts for only 5% of the total recorded diagnoses of UCPPS.

In 2023, physicians' office services had the largest share of all total annual expenditures 35%, ($10 million). Outpatient services and inpatient services also accounted for 34% ($10 million) and 12% ($4 million) of total expenditures, respectively.

- **Incident cohort spending**

For patients aged 65 and older with incident UCPPS, total expenditures (in nominal dollars) associated with services that were submitted with a primary diagnosis of UCPPS within 12 months after initial diagnosis were on average $9 million annually from 2016 to 2022. The corresponding total annual average expenditures for IC/BPS and CP/CPPS were $5 and $6 million, respectively. Expenditure per patient with incident UCPPS increased from $148 to $171 between 2016 and 2022. The average expenditure per patient for IC/BPS was approximately three times higher than that for CP/CPPS ($372 compared to $131).

3 Discussion

Total expenditure (in nominal dollars) for BPH/LUTS, USD, UI, urethral stricture disease, and UCPPS was approximately $2.7 billion annually from 2016 to 2023. BPH/LUTS and USD accounted for 46% and 37% of total expenditures, respectively. Urethral stricture disease, UCPPS, and UI together accounted for 17%. Total expenditures across all five conditions increased from $2.4 billion in 2016 to $3.1 billion in 2023.

Outpatient services appear to have played a bigger role in spending for urological diseases over time. This increase has been accompanied by a decline in inpatient services. This suggests that many services that were performed in the inpatient setting may have been transferred to hospital-based outpatient and ambulatory surgical centers in the study period.

For BPH/LUTS and UCPPS, average spending per patient was higher for older age subgroups. However, for USD, urethral stricture disease, and UI, average spending per patient was higher for younger age subgroups. This suggests potential differences in available treatment for different age groups by condition. For example, it may be that beneficiaries with USD who are younger are more likely to receive intensive treatment, leading to higher spending. Conversely, conditions like BPH/LUTS are managed through medication before receiving more intensive treatment, which could mean that costlier treatments are received by older age subgroups.

For BPH/LUTS and urethral stricture disease on average, expenditure per patient for the incident cohort was 15% and 23% higher than expenditure per patient for the prevalent cohort. Similarly, for USD, expenditure per patient for the incident cohort was 31% higher than expenditure per patient for the prevalent cohort, respectively. This suggests that USD patients may incur expenses that are particularly concentrated near the time of incident diagnosis. For UCPPS and UI, expenditure per patient was lower for the incident cohort compared to the prevalent cohort.

This document focuses on expenditures for the age 65 and older cohort. A number of future directions may be promising for assessing the economic cost associated with urologic diseases. First, further research can estimate expenditure for younger cohorts based on comprehensive data sources. Second, expenditures can be broadened to other sources of spending such as those under Medicare Part D coverage. Third, additional analytics (e.g., regressions) can be conducted to estimate incremental per patient cost of urologic diseases, controlling for confounders. Lastly, assessing spending in a framework based on episodes of care for urologic conditions may be promising.[4]

[1] For expenditures on UI, we have excluded claims containing HCPCS codes A4352 and A4353 during the years 2022 and 2023. CMS detected significant, anomalous, and highly suspect (SAHS) billing activities for these codes. Please see https://www.cms.gov/newsroom/fact-sheets/proposed-rule-mitigating-impact-significant-anomalous-and-highly-suspect-billing-activity-medicare.

[2] "Other Services" comprises of expenditures that are not included in inpatient services, emergency department (ED) services, outpatient services (including hospital outpatient and ambulatory surgical centers), and physicians' office services. For example, this may include spending on labs and imaging not otherwise covered by the earlier categories.

[3] A small percentage of male beneficiaries recorded with IC/BPS diagnosis also had recording of CP/CPPS. This overlap was less than 1% in all years.

[4] For example, this can be done by defining an episode of care based on an anchor period and post-anchor period under standard window lengths and well-defined diagnosis and procedure codes; calculating spending based on these standardized episodes; and assessing time trends in spending per episode.