

# Incidence of Lichen Sclerosus in Men - A Systematic Review



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## Introduction

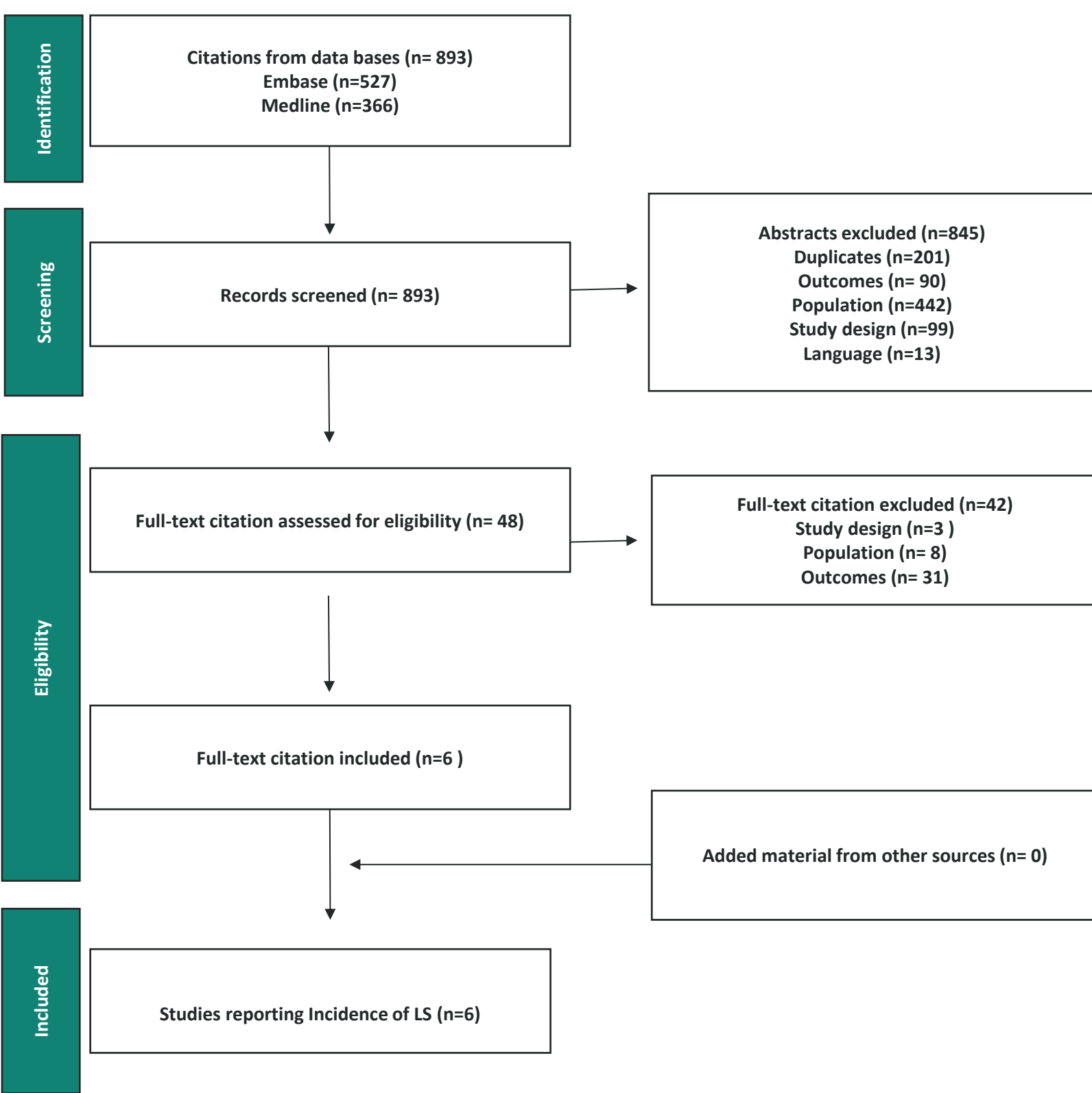
- Lichen Sclerosus (LS) is a chronic, progressive, inflammatory dermatosis which affects genital skin and urethra.
- The true incidence of the condition among men is poorly defined perhaps due to under-reporting by physicians, asymptomatic cases, and patient fear or embarrassment.

## Objectives

- We conducted a systematic review to study the incidence of LS among men. LS is an underdiagnosed inflammatory mucocutaneous condition primarily affecting the anogenital areas.

## Methods

- We performed a literature search using Ovid MEDLINE, Ovid MEDLINE In-Process and Other Non-Indexed Citations, Ovid Embase and EBM Reviews for studies published from inception of databases.
- We conducted this review according to published guidelines and using a prespecified protocol.
- We included primary studies that evaluated the incidence of LS in men. Relevant citations were assessed for eligibility by two independent reviewers and the findings synthesized.
- For this review we only included observational studies reporting incidence of LS in male patients.



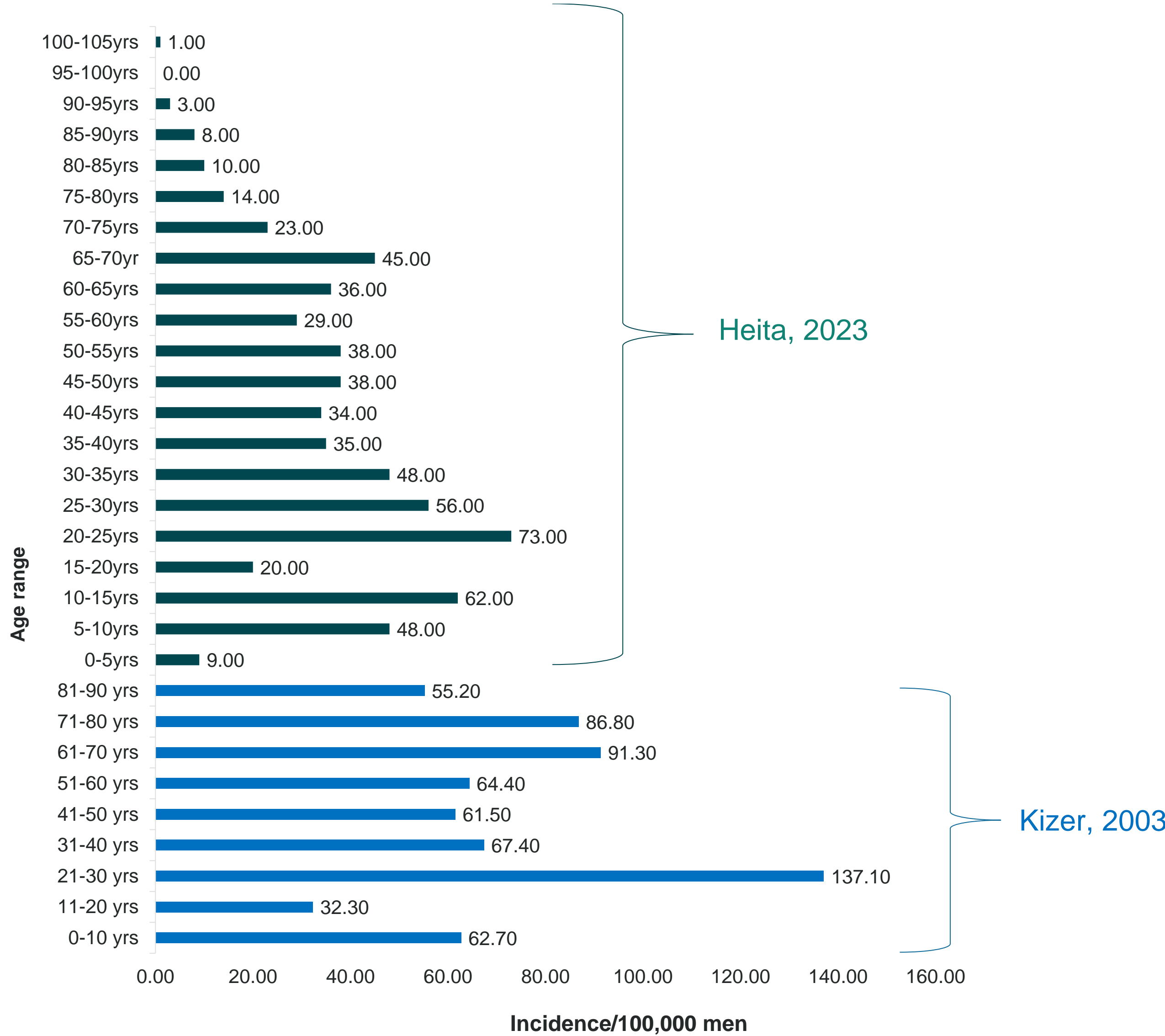
## Results

**Table 2: The Incidence of LS in Men**

Study author, year	Country	Age, years	Study period	Incidence	
Jayakumar, 2012	UK	Mean: 8.9 yrs	1997-2008	<b>Age under 15 yrs:</b> 3.01 cases/1000 boys <b>Age under 5 yrs:</b> 0.32 cases/1000 boys	
Gulin, 2023	Sweden	Mean: 57 yrs	2001-2021	<b>Cumulative incidence over a 20-year period:</b> 0.97%	
Gulin, 2024	Sweden	Median: 53 yrs	2001-2020	<b>Annual incidence:</b> 47.2 per 100,000 persons/year	
Nelson, 2011	USA	NR	2003 to 2009	<b>Overall incidence:</b> 1.4 men/100,000 visits  <b>Age range: Incidence/100,000 visits</b> <ul style="list-style-type: none"><li>&lt;10: 0.6/100,000 visits</li><li>11-20: 0.1/100,000 visits</li><li>21-30: 0.8/100,000 visits</li><li>31-40: 1.8/100,000 visits</li><li>41-50: 2.2/100,000 visits</li><li>51-60: 3.1/100,000 visits</li><li>&gt;60: 4.4/100,000 visits</li></ul> <b>Race: diagnoses/100,000 visits</b> <ul style="list-style-type: none"><li>White: 2.1/100,000 visits</li><li>Other: 1.7/100,000 visits</li><li>Black: 1.4/100,000 visits</li><li>Asian or Pacific Islander: 0.9/100,000 visits</li></ul> <b>Region: diagnoses/100,000 visits</b> <ul style="list-style-type: none"><li>New York: 0.3/100,000 visits</li><li>Seattle: 22/100,000 visits</li></ul>	
Kizer, 2003	USA	Age range: 2-90 yrs	1997-1999	<b>Overall incidence:</b> 70.4 ± 13.3/100,000 men  <b>Age range: Incidence/10,000 men</b> <ul style="list-style-type: none"><li>0-10 yrs: 62.7 ± 35.4/100,000 men</li><li>11-20 yrs: 32.3 ± 22.4/100,000 men</li><li>21-30 yrs: 137.1 ± 63.3/100,000 men</li><li>31-40 yrs: 67.4 ± 39.8/100,000 men</li><li>41-50 yrs: 61.5 ± 32.2/100,000 men</li><li>51-60 yrs: 64.4 ± 35/100,000 men</li><li>61-70 yrs: 91.3 ± 41/100,000 men</li><li>71-80 yrs: 86.8 ± 51.2/100,000 men</li><li>81-90 yrs: 55.2 ± 76.5/100,000 men</li></ul> <b>Race: Incidence/100,00 men</b> <ul style="list-style-type: none"><li>White: 50.7 ± 13.4/100,000 men</li><li>Black: 105.9 ± 44.2/100,000 men</li><li>Hispanic: 106.7 ± 42.6/100,000 men</li><li>Other/unknown: 413.7 ± 305.8/100,000 men</li></ul>	
Hieta,2023	Finland	Mean (range): 39.2 (2–101) yrs	2004-2020	<b>Year: Incidence/100,000 men</b> <ul style="list-style-type: none"><li>2004: 5/100,000 men</li><li>2019: 32.5/100,000 men</li><li>2020: 27.5/100,000 men</li></ul> <b>Age range: Incidence/100,000 men</b> <ul style="list-style-type: none"><li>0-5yrs: 9/100,000 men</li><li>5-10yrs: 48/100,000 men</li><li>10-15yrs: 62/100,000 men</li><li>15-20yrs: 20/100,000 men</li><li>20-25yrs: 73/100,000 men</li><li>25-30yrs: 56/100,000 men</li><li>30-35yrs: 48/100,000 men</li><li>35-40yrs: 35/100,000 men</li><li>40-45yrs: 34/100,000 men</li><li>45-50yrs: 38/100,000 men</li><li>50-55yrs: 38/100,000 men</li><li>55-60yrs: 29/100,000 men</li><li>60-65yrs: 36/100,000 men</li><li>65-70yr: 45/100,000 men</li><li>70-75yrs: 23/100,000 men</li><li>75-80yrs: 14/100,000 men</li><li>80-85yrs: 10/100,000 men</li><li>85-90yrs: 8/100,000 men</li><li>90-95yrs: 3/100,000 men</li><li>95-100yrs: 0/100,000 men</li><li>100-105yrs: 1/100,000 men</li></ul>	

Abbreviation: UK: United Kingdom; USA: United states of America; yrs: years

**Figure 1: Incidence Distribution by Age Group**



- The database search yielded 893 citations; of which six studies reported the incidence of LS in male patients. The included studies are published from 1997 to 2024.
- Four studies from Europe and two studies from the USA reported the incidence of LS among men with mean age ranging from 9-57 years.
- Study from Finland reported highest incidence among men aged 20-25 years (73 per 100,000), and lowest among men over the age of 90 years. Low incidence was also reported in boys aged 0-5 years (9 per 100,000 men).
- A USA based study also reported highest incidence of LS among men aged 21-30 years, followed by men aged 61-80 years.
- Of the two studies from Sweden, one reported a cumulative incidence of 0.97% of LS in men, whereas another study reported the annual incidence of LS as 47.2 per 100,000 persons/year.

## Results (Contd.)

- Kizer, 2003 (USA) reported incidence of LS in Black and Hispanic patients (105.9/10,000 and 106.7/10,000) compared with white patients (50.7/100,000).
- Whereas, Nelson, 2011 (USA) reported that LS is higher in older White men compared with Black men. White race had the highest rate at 2.1 diagnoses per 100,000 clinical visits, followed by other at 1.7/100,000, Black at 1.4/100,000 and Asian or Pacific Islander at 0.9/100,000.
- Interestingly, the incidence increased across the United States from east to west.

## Conclusion

Incidence of LS in men is difficult to ascertain as many patients are asymptomatic, unaware, misdiagnosed, or hesitant to report their condition. We present this review to foster translational research in LS among men and to emphasize the need for increased awareness of this condition.

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