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PROJECT REPORT

Quantifying the Shingles Burden in the Population Aged 60-69 in England

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Executive Summary

Executive Summary: Background and Objectives

Background

Herpes Zoster, or 'shingles' carries a **greater burden in the population aged 50 and above**, with both incidence and severity rising with age¹⁻⁴.

Post-Herpetic Neuralgia (PHN) is estimated to affect approximately 12% of shingles patients aged 60-69⁵, causing persistent, often treatment-resistant nerve pain that can affect the ability to work and function independently^{6,7}.

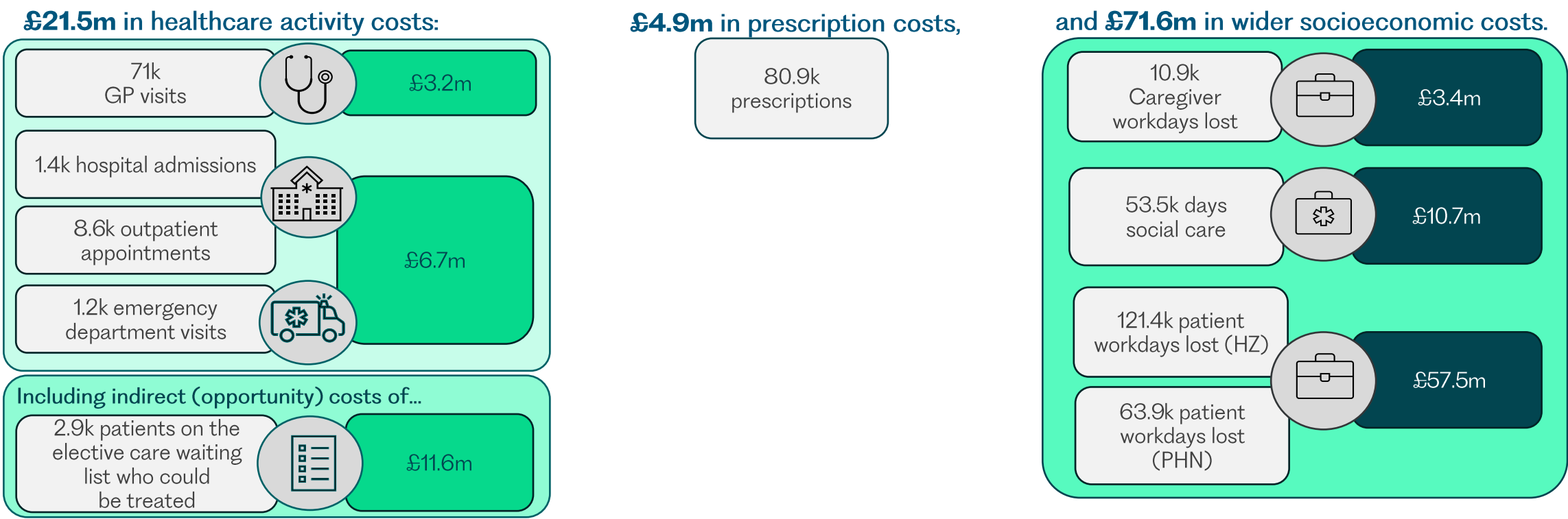
More than half of people in their 60s in the UK manage chronic conditions⁸, and evidence shows that shingles can actively worsen some of these conditions, including cardiovascular disease, chronic kidney disease and diabetes, driving further burden beyond the acute episode.^{9,10,11}

Using modelled data, this report estimates the burden of shingles in adults aged 60-69 in England, its costs to the NHS, wider economic impact, and the impact on patients' quality of life.

Note: Recent work by OHE, in collaboration with GSK, also explores the case for the population aged 80 and over in a complementary report¹²

Executive Summary: Direct and Quantifiable cost of Shingles to the NHS and Wider Economy

11% of England’s population is aged 60-69¹, and shingles in this group is estimated to incur an **annual** cost to the NHS and wider economy, of **£98m** each year, comprised of:



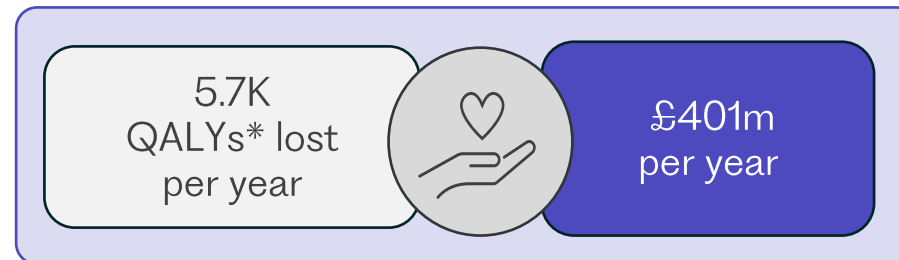
Analysis is based on estimated costs from publicly available datasets including ONS, NHS, Department for Work and Pensions and Department for Health and Social Care, and peer reviewed literature; see [slide 21](#) for supporting references. Note: prescription costs are from 2006 and have been inflated to 2025 values. Full methodology is available in the separate technical appendix. See the main report for full results. Glossary: HZ: Herpes zoster, PHN: Post Herpetic Neuralgia

Executive Summary: Significant Burden for the Patient

Beyond system costs, shingles generates a substantial patient burden due to severe acute and sometimes chronic nerve pain^{1,2}. This leads to functional limitations that impair activities of daily living and overall well-being^{1,2}.

The patient burden of shingles comprises...

...**£401m** in monetised quality of life burden³.



*Quality adjusted life year

Executive Summary: Shingles and Comorbidities

Underlying comorbidities play a dual role in shingles burden. They increase the risk of developing shingles and the severity of shingles episodes.¹⁻³ Furthermore, patients with comorbidities are likely to experience increased comorbidity-related complications following shingles.⁴⁻⁶

Chronic Kidney Disease

36% increased hazard of subsequent end-stage kidney disease in CKD patients who had shingles, compared to those without.^{2,3}

Adjusted HR: 1.36 [95% CI: 1.09-1.70; p<0.01]. (Total study population N= 4,999 patients and CKD patients with shingles N=1,144, adults aged ≥18). This study shows an association between shingles and ESKD, no direct causal relationship has been established.



1.4m

people aged 60-69 are estimated to have

Chronic Kidney Disease^{1, 6}

Cardiovascular Disease

After shingles, stroke risk is **28-38%** higher and heart disease risk is **13-25%** higher for up to 12 years.⁴

For stroke, Adjusted HR: 1.38 [95% CI: 1.10-1.74] after 5-8 y, 1.28 [95% CI: 1.03-1.59] after 9-12y. For CHD, Adjusted HR: 1.16 [95% CI: 1.02-1.32] after 5-8 y, 1.25 [95% CI: 1.07-1.46] after 9-12y. (Study populations (N=205,030), aged 25-75). This study shows an association between shingles and stroke and CHD, no direct causal relationship has been established. Long-term risk may be higher.



807.8k

people aged 60-69 are estimated to have

Cardiovascular Disease^{1, 6}

Diabetes Mellitus

24% of patients with previously well-controlled diabetes experienced increased HbA1c levels following shingles.⁵

Study population N= 2,289,485 (397,940 with diabetes), aged 50 and over



620.9k

people aged 60-69 are estimated to have

Diabetes^{1, 6}

Main Report

Report Objectives

Objectives

This report aims to provide an estimate of the burden of Herpes Zoster or 'shingles' in patients aged 60-69 in England, including:

- Healthcare costs (direct medical costs and opportunity costs)
- Caregiver productivity costs
- Social care costs
- Impacts on health-related quality of life
- The increased clinical risks associated with shingles in patients aged 60-69.

Background: Understanding Shingles and Its Complications

What is Herpes Zoster or 'shingles'?

- Reactivation of the latent varicella zoster virus, which is responsible for childhood chickenpox (primary infection).¹
- Starts with localised pain for 2-3 days, followed by a rash which typically lasts for 3-4 weeks.¹

What is PHN?

Postherpetic neuralgia (PHN) is the most common long-term complication of shingles.^{1,2} PHN causes **persistent nerve pain** at the site of the original shingles rash, lasting for at least 3 months after shingles rash onset and sometimes remains for years.¹

- In older adults, PHN can accelerate frailty, which is linked to falls, hospitalisations and mortality.³
- PHN is often **unresponsive to treatment**.⁴
- Other rare but serious non-PHN complications of shingles include cutaneous, ocular, and neurological complications^{5,6}. Disseminated shingles was the most reported cutaneous complication, particularly among the immunocompromised⁵, where viral spread beyond primary dermatome, extending to the liver, lungs and central nervous system.⁷

The broader impact of shingles

- Disease severity varies, but shingles and PHN can have a substantial impact on patients' health-related quality of life (HRQoL) and activities of daily living.^{1,2}
- Shingles and its complications can also generate significant economic costs, including costs to healthcare systems arising from care provision and prescription costs, and indirect costs arising from lost productivity in patients who remain in employment, and informal caregivers who support them.^{2, 8, 9, 10}
- Evidence estimates the cost of shingles in the total UK population can be £72.7 million from a healthcare system perspective or £92.5 million when patient QoL impacts are accounted for, based on previous estimates which have been adjusted for inflation ^{11,12,13}

A clearer understanding of the full burden of shingles including productivity costs and quality-of-life impacts is needed in specific populations in England to inform policy and resource allocation decisions.

Background: Why the 60-69 Population in England Faces a Meaningful Shingles Burden

Immunities and age

Age-related decline in immunity is a primary driver of both shingles' incidence and severity.^{1,2}

In a UK-population based study, shingles incidence rose from 2.1 per 1000 in those aged below 50 to 8.8 per 1000 for those aged 70 and above³, reflecting a substantial increase in burden over two decades. The likelihood of developing PHN follows the same pattern, increasing progressively with age.⁴

An active population

A substantial proportion of people aged 60-69 are in paid employment (approximately 44%^{5,6}), and they remain at higher risk of severe shingles and PHN than younger populations, potentially causing disruption to daily activity and working capacity^{1,7,8}.

Patients affected by shingles or PHN may also require support during illness from informal carers^{1,7}, generating productivity losses beyond the patient themselves.⁸ Published estimates of formal adult social care use attributable to shingles are not available, however, a proportion of care needs for may be met in this way.⁹

This dual vulnerability of patients as well as their carers makes the productivity burden in this age group particularly significant.

No direct estimates of formal adult social care required for HZ/PHN cases are published. We assume care is required for moderate and severe cases for the duration over which patients are unable to take part in their usual activities, distributed across informal and formal care based on current ratio of care type in the UK; see [slide 22](#) for supporting references. See [slide 13](#) for methodological overview. Full methodology including sources and assumptions used is available in the separate technical appendix. See the main report for full results. Glossary: HZ: Herpes zoster, PHN: Post Herpetic Neuralgia

Background: Shingles, Comorbidities, and Treatment: A Reinforcing Cycle of Risk in Older Adults

Comorbidities are common in older adults

Approximately 53% of people in their 60s in the UK report having one or more long-term condition.¹

- **Comorbidities may increase shingles susceptibility,**² severity of shingles episodes and risk of complications like PHN.^{3,4}
 - Conditions associated with increased risk of developing shingles include Rheumatoid Arthritis, Chronic Obstructive Pulmonary Disease, Cardiovascular Disease (CVD), Inflammatory Bowel Disorder, Systemic Lupus Erythematosus, Chronic Kidney Disease (CKD), Asthma and Diabetes.²
- Shingles is associated with increased hazards in patients with diabetes, CKD, and CVD . While no causal relationship has been established, **shingles episodes may exacerbate comorbidities, increasing complications** in these diseases.^{5,6,7}

Treatment risks are higher in older adults

Shingles and PHN are primarily treated with antivirals and analgesics (neuropathic pain medication):⁸

- **Prescription rates for antivirals increase with age up to age 75**⁹
- **Polypharmacy is common:** older adults often take multiple prescribed and non-prescribed medications, raising risks of drug-drug interactions, non-adherence and overall treatment safety concerns.^{8,10}

Methodological Overview

This analysis provides a descriptive estimate of the burden of shingles in England's 60-69 age group, using 2025 as the reference year (costs inflated to 2025 values using ONS CPI where necessary). Drawing on nationally reported figures (ONS, NHS HES) and secondary literature, with assumptions applied where direct or age-specific data were unavailable, the estimates cover NHS healthcare utilisation and costs, wider socioeconomic costs, patient quality of life impact, and population-level risks among those with comorbidities.

Healthcare burden¹

- Primary care utilisation from secondary literature; secondary care activity from national HES (2024/25); costs from a 2026 UK peer-reviewed study and 2024 Unit Costs of Health and Social Care Manual
- Opportunity costs quantified using a Net Monetary Benefit approach (Sandmann et al., 2018)
- Prescription costs from a systematic review of European prescribing rates (2000–2014)

Wider socioeconomic burden²

- Caregiver and patient productivity losses estimated from observational data (Spain 2012–2015; UK 2014), adjusted using 2025 DWP employment rates and ONS Labour Force Survey
- Social care utilisation estimated using 2014 UK patient QoL data as a proxy for care duration; costed using the 2024 Unit Costs of Health and Social Care Manual

Patient quality of life impact³

- QALY loss per case from a 2026 global systematic review of individual-level EQ-5D data; monetised at £70,000 per QALY (HM Treasury Green Book)

Comorbidity populations⁴

- Prevalence of CKD, CVD, and diabetes estimated from national health statistics; complication risks drawn from published international cohort studies

Key assumptions

- Annual incidence of shingles in England is based on the 65-69 rate applied across the 60-69 population
- Hospital admissions data are inflated (x2.1) to capture episodes where HZ is coded as a secondary diagnosis
- Productivity, caregiver and social care estimates are applied only to moderate/severe cases based on pain assessment from the UK SPS trial and exclude patients already receiving regular care
- Some inputs are drawn from older or non-UK sources, inflation-adjusted to 2025

See the separate technical appendix for a full description of data sources and modelling assumptions.

The Burden of Shingles in England: Healthcare Burden

Shingles in patients aged 60-69 in England is estimated to cost the national health service around £21 million each year.¹ Of this, approximately £9.9 million is attributed to direct healthcare costs and £11.6 million is attributed to opportunity costs.¹

- This analysis estimates that shingles contributes to about 71.0K GP visits; 8.6K outpatient hospital appointments; 1.2K Emergency Department visits; and 1.3K hospital admissions (accounting for over 13.8K hospital bed days).¹
- The opportunity cost of bed days to the NHS impacts elective patients on waiting list that cannot be treated. The impact of this to the NHS is quantified using the Net Monetary Benefit approach, with bed days valued in terms of the health gain and monetary benefit they could have otherwise delivered.² This analysis estimates that the hospitalisation burden due to shingles in patients aged 60-69 prevents over 2,900 additional elective care patients from being treated every year, with an opportunity cost of over £11 million.
- The value of treating patients from the waiting list is estimated using average Net Monetary Benefit (health gain monetised using NICE’s £25,000 per QALY threshold, minus incremental costs) per hospital bed stay (£3,936)². Estimates identified from the secondary literature of the average stay in hospital for an elective care patient 4.69 days³.

Shingles in patients aged 60-69 is estimated to generate at least 45K annual prescriptions, costing an additional £4.9m each year.

	GP visits	Outpatient hospital appointments	ED visits	Hospital admissions (bed days)			Number of patients who could be treated from the waiting list	Prescription medications
				Shingles	PHN	Total		
Annual events	71,046	8,552	1,184	1,222	152	1,374 (13,796)	2,941	80,891
Annual costs	£3,197,082	£1,875,373	£370,470	£3,986,729	£494,709	£4,481,438	£11,577,739	£4,943,629

Sources: See [slide 23](#) for supporting references. Full methodology including sources and assumptions used is available in the separate technical appendix.

The Burden of Shingles in England: Wider Socioeconomic Burden

- Shingles has an estimated wider socioeconomic cost of **more than £68.2 million per year in England**, comprising formal care (paid healthcare and support services) and informal care (unpaid care provided by family and friends), and patient productivity losses¹.
 - This analysis estimates that, annually, shingles accounts for nearly **11K workdays lost due to informal caregiving**, and **over 185k workdays lost due to patient absenteeism** (taking time off work) and presenteeism (reduced productivity while at work)¹.
 - These are estimated to cost over **£57.5 million** and **£2.7 million every year** in patient and caregiver productivity losses¹.
 - A larger proportion of the economically active population aged 60-69 years are male (53% male vs 47% female)^{2,3} so they are likely to experience a greater proportion of the patient productivity costs. However, women are more likely to bear the informal care burden because they consistently represent roughly 60% of unpaid carers in the UK.⁴
 - Over **11.8K days of paid social care** are required to support patients with daily activities which are valued at over **£2.3 million every year**¹.

	Caregiver absenteeism (workdays)	Social care (days)	Patient work days lost (HZ)	Patient work days lost (PHN)	Total patient absenteeism + presenteeism	Total
Annual burden	10,902	53,543	121,423	63,885	249,753	249,753
Annual Cost	£3,382,653	£10,697,918	£37,675,562	£19,822,623	£57,498,185	£71,578,755

Sources: See [slide 24](#) for supporting references. Full methodology including sources and assumptions used is available in the separate technical appendix.

The Burden of Shingles in England: Patient Impact

- Beyond direct healthcare and socioeconomic costs, shingles and PHN impose a substantial burden on patients' quality of life.
 - A QALY is a measure of disease burden that combines both the quality and length of life lived, where one QALY represents one year in perfect health.¹
 - This analysis estimates shingles accounts for **5,734 Quality-Adjusted Life Years (QALYs)** lost annually (0.113 QALYs per case, inclusive of PHN) for patients aged 60-69, where one QALY represents one year in perfect health.²
 - Monetised at the HM Treasury Green Book valuation of £70,000 per QALY³, this represents over **£400 million** in annual quality of life costs,² a figure that underscores the scale of patient suffering, beyond that captured by NHS and wider economic cost estimates.

	QALYs lost	Monetised quality of life costs
Annual burden	5,734	£401,411,456

The Burden of Shingles in England: Populations with Comorbidities

A shingles episode in adult populations with comorbidities is associated with:

In the population 60-69, there are an estimated:

Increased renal decline in high-risk CKD patients:

In people aged 18 and over with chronic kidney disease, shingles is associated with a 36% increased hazard of subsequent end-stage kidney disease, compared to those without chronic kidney disease.²

Adjusted HR: 1.36 [95% CI: 1.09-1.70; p<0.01]. (Total study population N= 4,999 patients and CKD patients with shingles N=1,144, adults aged ≥18). This study shows an association between shingles and ESKD, no direct causal relationship has been established.

~1.4m
CKD patients

Worsened CVD outcomes:

After shingles, hazard ratios for stroke ranged from 1.28 to 1.38 across follow-up intervals (1–4, 5–8, and 9–12 years), equivalent to about a 28–38% higher rate of stroke, with increased risk observed across all follow-up periods.³

For stroke, Adjusted HR: 1.38 [95% CI: 1.10–1.74] after 5–8 y, 1.28 [95% CI: 1.03–1.59] after 9–12y. For CHD, Adjusted HR: 1.16 [95% CI: 1.02–1.32] after 5–8 y, 1.25 [95% CI: 1.07–1.46] after 9–12y. (Study population (N=205,030), aged 25-75). This study shows an association between shingles and stroke and CHD, no direct causal relationship has been established.

~807.8k
CVD patients

Destabilised glycaemic control in diabetes patients:

24% of people with previously well-controlled type II diabetes had raised HbA1c levels following shingles. Diabetes patients utilised more health care resources compared to their non-diabetic counterparts after the shingles episode.⁴

Study population N= 2,289,485 (397,940 with diabetes), aged 50 and over

~620.9k
Diabetes
patients
(type I & II)

Strengths and Limitations of the Report

Strengths

- This analysis uses the **most recently published available national data** on hospitalisations and costs, for an up-to-date reflection of the current burden.
- By capturing **healthcare costs** and **patients' health-related quality of life**, as well as potential **caregiver productivity losses** and **social care costs**, this analysis provides a **holistic estimate** of the socioeconomic burden of shingles in the population aged 60-69.
- A key strength of this analysis is the inclusion of the **opportunity cost of bed days** and the foregone alternative treatments, which are often overlooked.

Limitations

- All figures presented are estimates. Where data specific to the 60-69 age group were not available, the closest available population parameters have been used, with modelling assumptions applied as necessary.
- Prescription data was limited and costs were from 2006 (inflated to 2025 prices) due to lack of recent data; estimates may not reflect current prescribing patterns and costs.
- Assumptions were made on the shingles-related **formal-informal care split**; shingles was assumed to not increase care resources for those already receiving care.
- Estimates for the **devolved nations** were out of scope for this analysis and are not provided.
- Employment data reflects an **estimate of the economically active population** aged 60-69, derived from a weighted average of the population aged 50-64 and 65+ years. There is uncertainty related to how many 60-69 years olds remain in the workforce.
- The **incidence rate** was estimated based on a population of unvaccinated individuals aged 65-69 years, and as a result may overestimate the incidence in the 60-69 population. However, values used align to other published evidence¹ for the 60-69 population

Summary

The analysis in this report estimates that shingles in the 60-69 population costs a total of **£98m** each year in system-level costs with the health system incurring **£22m** in healthcare activity costs¹.

£3.2m in GP costs
£6.7m in secondary care costs
£11.6m in opportunity costs

£21.5m + **£4.9m** in prescription costs
£71.6m in wider socioeconomic costs

Policy Implications

- Increase recognition of the **healthcare** and **wider socioeconomic burden** of shingles in the population aged 60-69.
- **Improve** and **expedite strategies** to address the burden in this unprotected population.

Beyond system costs, shingles generates a substantial patient quality of life burden in the 60-69 population, estimated at **5,734 QALYs lost** annually – equivalent to **£401m** using the HM Treasury Green Book valuation of a QALY.²



Unlike older cohorts, many people aged 60-69 remain economically active, yet face sharply increased shingles risk due to age-related immunity decline — making this group particularly exposed to both health and productivity impacts.³⁻⁵



Although only ~11% of the population⁶, **this group** costs the NHS **£9.9 million** annually in direct healthcare costs in England alone. By comparison, the total cost of shingles in the **total UK population** can be estimated to be **£72.7 – 92.5 million**, based on previous study estimates which have been adjusted for inflation using ONS CPI tables.^{7,8,9}



Foregone alternative treatments are important not to overlook, estimated to cost the healthcare system an **additional £11.6 million**, equivalent to **2,941 patients who could have been treated from the elective care waiting list**.¹

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Slide 6 (Executive Summary: Significant Burden for the Patient)

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Slide 7 (Executive Summary: Shingles and Comorbidities)

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Slide 10 (Background: Understanding Shingles and its Complications)

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Slide 11 (Background: Why the 60-69 Population Faces a Meaningful Shingles Burden)

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Slide 13 (Methodological overview)

1. See [abbreviated appendix \(I\) - Full Report: The Burden of Shingles: Healthcare Burden](#) for details
2. See [abbreviated appendix \(II\) - Full Report: The Burden of Shingles: Wider Socioeconomic Burden](#) for details
3. See [abbreviated appendix \(II\) - Full Report: The Burden of Shingles: Patient Impact](#) for details.
4. See [abbreviated appendix \(I\) - Executive Summary: Shingles and Comorbidities in the 60-69 Population](#) for details.

Slide 14 (The Burden of Shingles in England: Healthcare Burden)

1. Based on OHE Calculations. See [abbreviated appendix \(I\) - Full Report: The Burden of Shingles: Healthcare Burden](#) for details
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Slide 15 (The Burden of Shingles in England: Wider Socioeconomic Burden)

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Slide 18 (Strengths and Limitations of the Report)

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Slide 19 (Summary)

1. Based on OHE Calculations. See full report [methodological overview](#), the [burden of shingles: healthcare burden](#), the [burden of shingles: wider societal burden](#) and the [abbreviated appendix \(I\)](#) and [the abbreviated appendix \(II\)](#) for details.
2. Based on OHE Calculations. See full report [the burden of shingles: patient impact](#) and [abbreviated appendix \(II\)](#) for details.
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Slide 18 (Summary)

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Abbreviated Appendix

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Abbreviated Appendix (I)

Executive Summary: Shingles and Comorbidities in the 60-69 Population

1. **Comorbidities:** Prevalence of diabetes (9.5%)¹, CVD (12.4%)², and CKD (22%)³, was applied to the 60-69 population⁴ to estimate comorbidity cohort sizes⁵.

Full Report: The Burden of Shingles in England: Healthcare Burden

1. **Primary care:** GP appointments for shingles/PHN were estimated using utilisation rates from a retrospective analysis of the UK General Practice Research Database (GPRD)⁶ applied to 60-69 shingles/PHN cases^{7,8} and costed at £45 per appointment.⁹ Shingles incidence rate in 65–69-year-olds⁶ was applied to England's 60-69 year old population⁷; 11.9% were estimated to develop PHN.⁶
2. **Secondary care utilisation:** Hospitalisations and ED visits were from 2024/25 HES¹⁰ using ICD-10 codes for shingles/PHN.¹¹ Age-specific totals for adults 60-69 were proxied using the proportion of finished consultant episodes (FCEs) aged 60-69 (16.6% for HZ, 21.7% for PHN)¹⁰. A multiplier (2.1) was applied to admissions to adjust for complications coded as primary diagnoses.¹² Length of stay was from Gauthier et al., (2009).⁶ Outpatient attendances were proxied using the ratio to hospitalisations in immunocompetent (IC-free) and immunocompromised (IC) adults aged 60-69 from Curran et al. (2019)¹³, weighted by relative IC and IC-free proportions from Nishimwe et al. (2025)¹⁴.
3. **Secondary care costs:** Costs per hospital admission were sourced from literature, based on analysis of patient level HES data and critical care activity^{7,8,15}. Costs per outpatient appointment were calculated using service codes for shingles/PHN¹³ and associated costs from NHS National Cost Collection data¹⁶. The cost of an ED visit was sourced from NHS Payment Scheme unit costs, per Curran et al (2019).^{13,17} Unit costs were inflated to 2025 prices using ONS consumer price indices (CPI)¹⁸ and applied to resource utilisation to estimate the secondary care burden.
4. **Opportunity costing:** Opportunity cost was estimated based on forgone benefits from alternative treatments, quantified using Net Monetary Benefit (NMB). Bed days for shingles admissions were converted into potential alternative treatments and valued using average health gains and costs from an alternative treatment, following methods from Sandman et al. 2018.¹⁹
5. **Prescriptions:** Shingles prescription volumes were estimated by applying antiviral and analgesic prescription rates from the UK ZQOL study²⁰ to the 60-69 incident population^{7,8}. Unit costs were sourced from a retrospective UK GPRD analysis⁶ and inflated to 2025 prices using ONS (CPI).¹⁸

Abbreviated Appendix (II)

Full Report: The Burden of Shingles in England: Wider Socioeconomic Burden

- Care needs:** Shingles episodes were assumed not to increase usual care needs for individuals already receiving regular care and were only calculated for cases that were moderate or severe based on pain severity assessment in the UK SPS trial (32% of HZ; 58% of PHN)¹. The proportion of adults aged 60-69 receiving regular informal care (4.5%) and regular formal care (1.1%) was used to identify the share of shingles patients without existing support.^{2,3} Unmet care needs were calculated as the residual (78.4%), and the informal:formal care split was based on current ratios (64.6% informal; 35.4% formal).
- Caregiver productivity loss:** Productivity loss for informal caregivers was estimated using 1.3 workdays lost per shingles episode.⁴ Employment among informal carers (56%) was sourced from the Department of Work and Pensions Family Resources Survey.² This reflects the employment rate of all adult informal carers in the UK. To value productivity losses according to the value of output lost, Gross Value Added (GVA) estimates were used (£39.87/hour).⁵
- Social care costs:** Duration of social care need was proxied using mean days of activity limitation (HZ = 3.9 days per case and PHN = 6.4 days per month) from UK ZQOL studies in adults aged 50+.^{6,7} This reflects full-day care requirements and differs from “workdays lost,” which apply only during working hours. Social care costs were valued using the weekday unit cost per hour for a home care worker (£27/hour).⁸
- Patient productivity costs:** Duration of time off work were sourced from secondary literature. For HZ, 5.4 workdays lost per case⁹ was used, for PHN, days per month in which patients were unable to perform usual activities (6.4)⁷ was adjusted for working days and applied to mean PHN duration (9 months)¹⁰. Work days lost per case were applied to the number of HZ and PHN cases respectively, adjusted for the employment rate (44.3%) sourced from the ONS Labour Force Survey². A population weighted average employment rate was estimated from the employment rates of the 50-64 year and 65+ year old population^{10,11}. Productivity losses were valued using Gross Value Added (GVA) (£39.87/hour)⁵.

Full Report: The Burden of Shingles in England: Patient Impact

- Patient impact:** The quality of life burden of shingles was estimated by applying a QALY loss of 0.141 per case, inclusive of PH¹² to the 60-69 incident population^{13,14}. The burden was monetised using the HM Treasury Green Book valuation of £70,000 per QALY¹⁵.

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Slide 28 (Abbreviated Appendix (I) – Executive Summary: Shingles and Comorbidities in the 60-69 Population)

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