

Clinical, Humanistic, and Economic Burden of Menopause-Related Vasomotor Symptoms: a Targeted Literature Review

To download this poster, please scan the QR code below.



RWD36

C. PROENCA¹, E. OLEWINSKA², B. SMELA², J. SASSARINI³ and R. DUNSMOOR-SU^{4,5}

¹Bayer CC AG, Basel, Switzerland; ²Clever Access, Krakow, Poland; ³NHS Greater Glasgow and Clyde, Glasgow, UK; ⁴Seattle Clinical Research Center, Seattle, Washington, USA; ⁵Gennev, Seattle, Washington, USA

INTRODUCTION

- Vasomotor symptoms (VMS), also known as hot flashes, are among the most prevalent and distressing symptoms associated with menopause.¹
- VMS can negatively impact daily activities, productivity, sleep, mood, and overall quality of life (QoL).²
- VMS may also be associated with increased healthcare costs and resource utilization.

OBJECTIVE

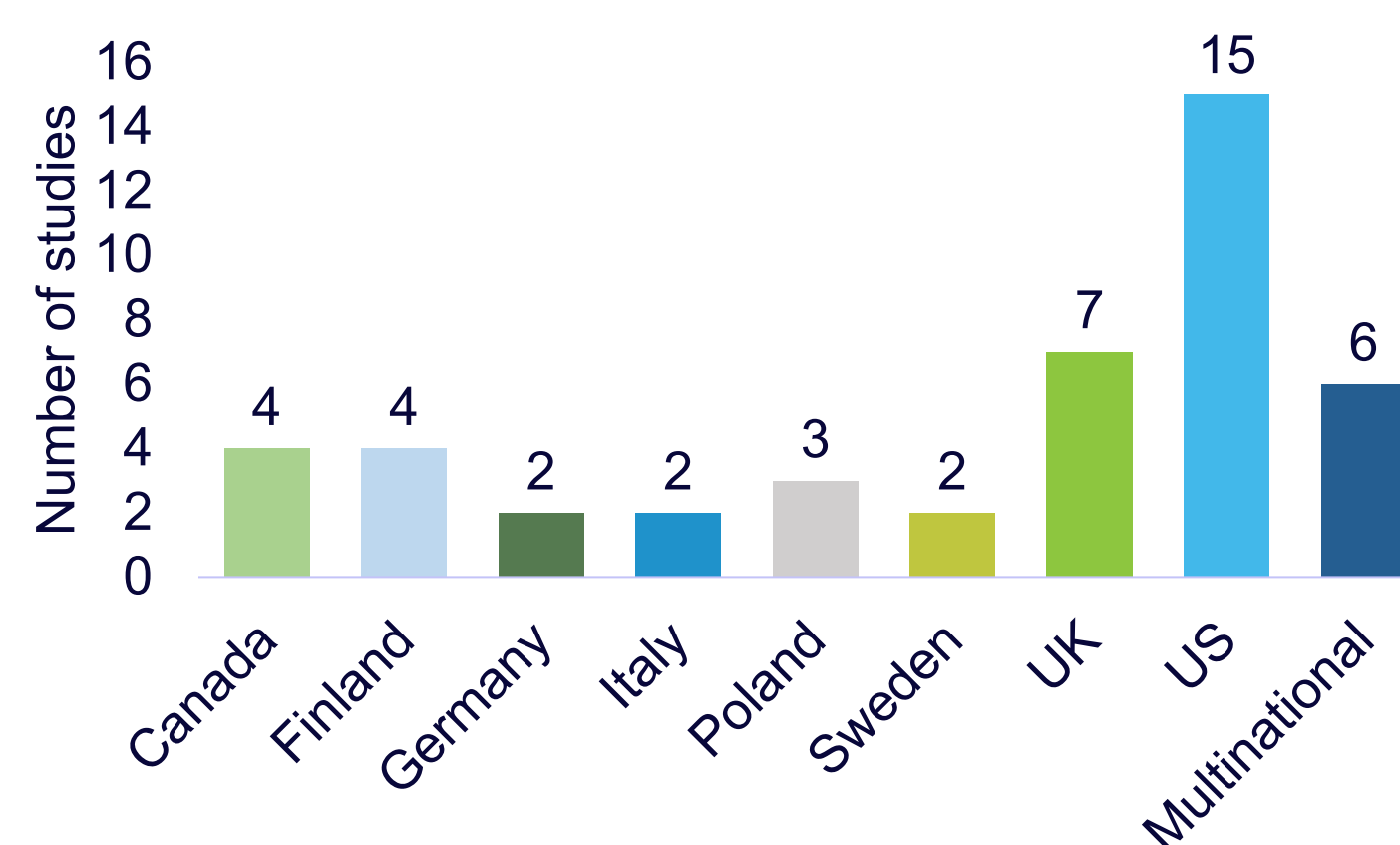
- To characterize the clinical, humanistic, and economic burden of VMS in women experiencing menopause based on recent literature (2022–2025).
- The review focused on VMS prevalence and the impact of VMS on sleep, QoL, and work, as well as the current treatment patterns and economic implications of VMS.

METHODS

- This targeted literature review (TLR) followed the best practices for implementation and reporting in accordance with the Preferred Reporting Items for Systematic Literature Reviews and Meta-Analyses (PRISMA) statement.
- Searches were conducted in the MEDLINE and Embase databases as well as grey literature (including relevant conference and organization websites from January 1, 2022 to March 29, 2025).
- Study selection was based on the Population, Intervention, Comparator, Outcome, Study Design (PICOS) framework. Non-English language studies were excluded.
- Observational studies that reported clinical, humanistic, and economic outcomes related to women experiencing VMS associated with menopause, or in mixed populations including perimenopausal and postmenopausal women, were included.

SEARCH RESULTS

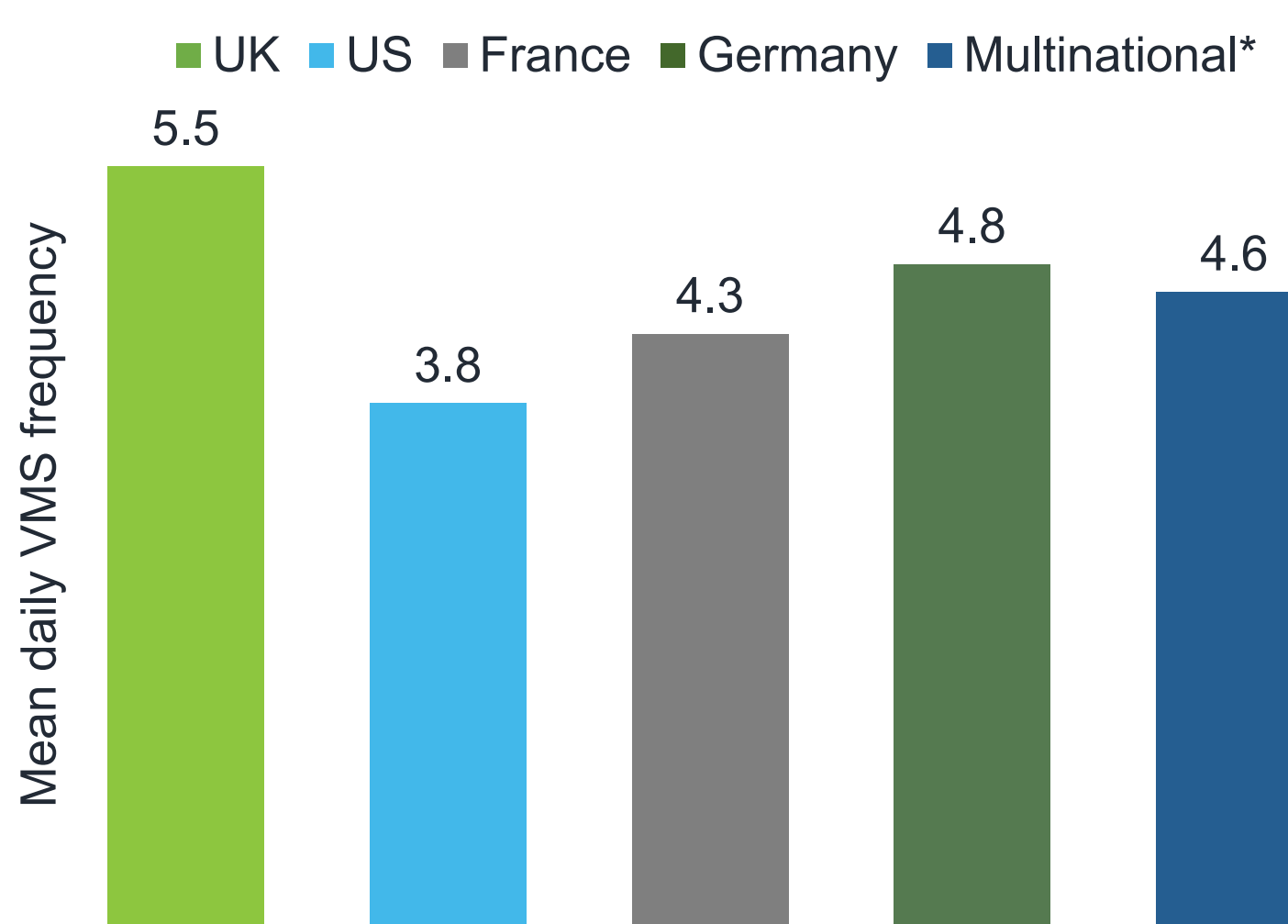
This TLR identified 45 studies in 51 publications that reported findings on the burden of VMS, including 20 studies in Europe and 19 in North America.



CLINICAL BURDEN

- Overall, the prevalence of VMS (any severity) in postmenopausal women ranged from 43.4%^{3,4} to 82.7%.⁵
- Among postmenopausal women with VMS, 14.7%⁶ to 52.0%^{7,8} experienced moderate-to-severe symptoms.
- A large proportion of women experienced VMS for 5 years or longer.^{9,10}

The overall daily frequency of VMS (any severity) in postmenopausal women varied across countries.^{7,8}

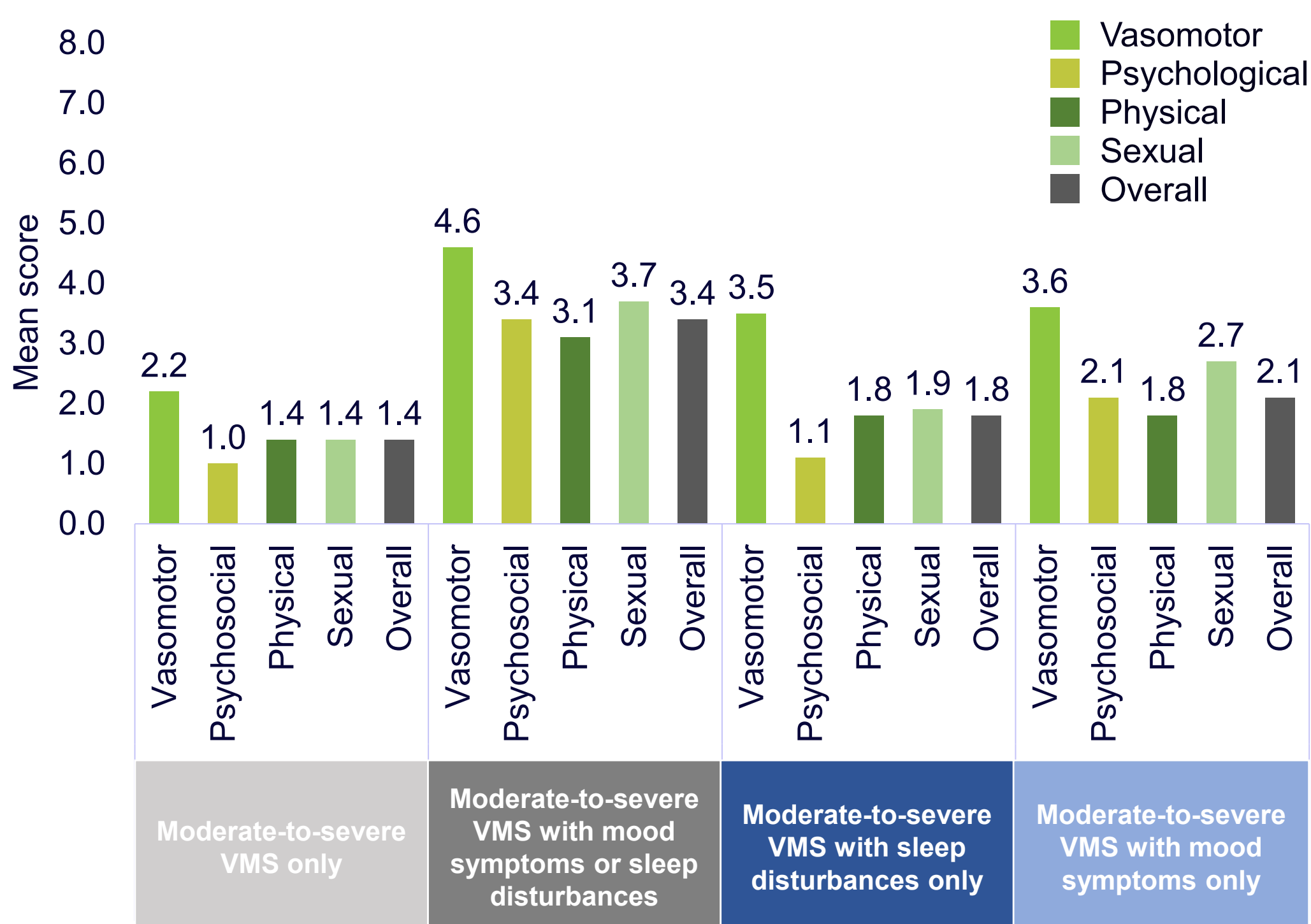


*Included France, Germany, Italy, Spain, and the UK.

QUALITY OF LIFE

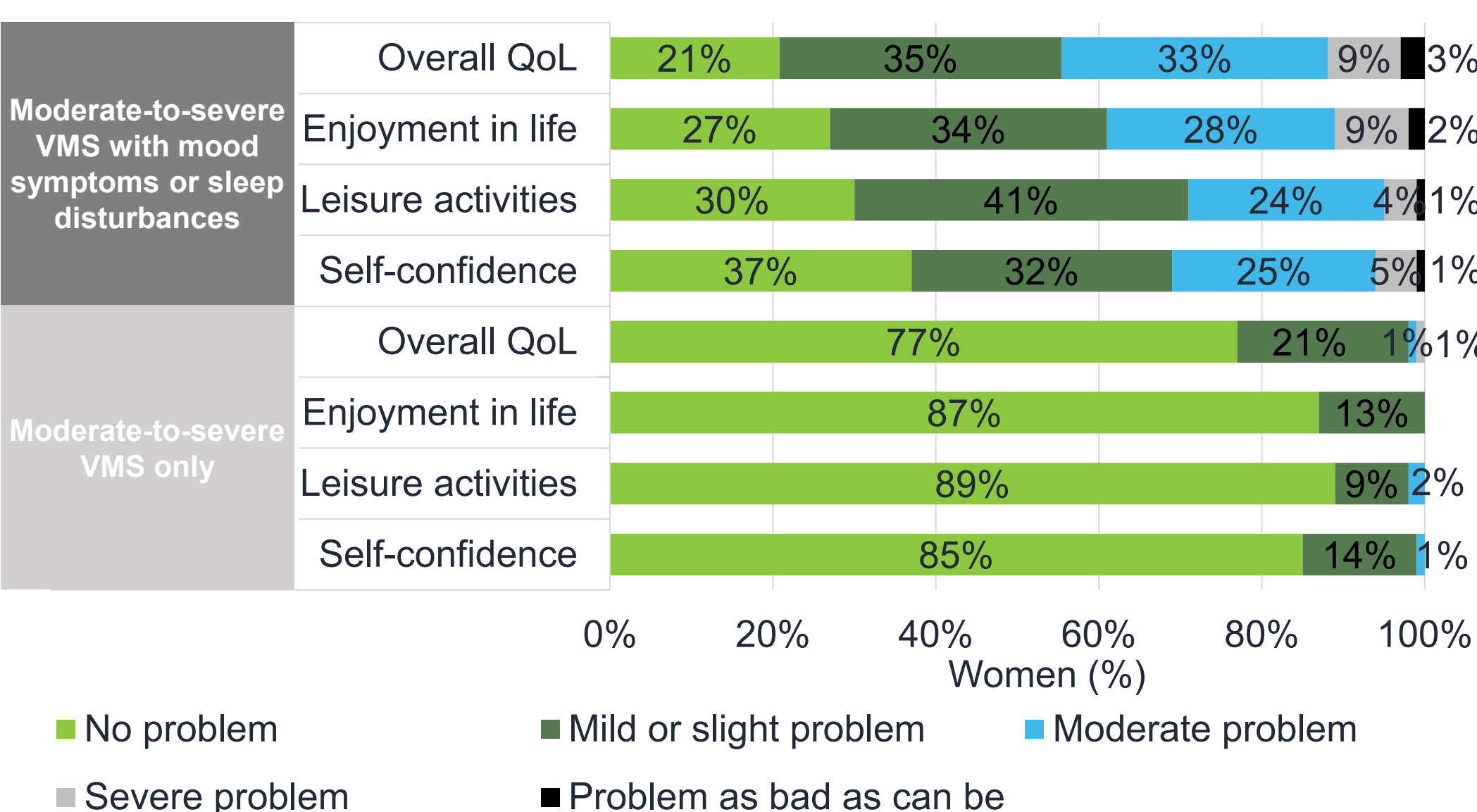
- Eleven studies (12 references) reported data for health-related QoL, with 6 using the Menopause-specific Quality of Life questionnaire (MENQoL) to assess QoL.^{6–8,11–13}
- Mean overall MENQoL score among women with moderate-to-severe VMS ranged from 1.4 to 4.1.^{11–13}

Greater VMS severity, especially with concomitant sleep disturbances or mood symptoms, was associated with higher mean MENQoL* domain scores.¹¹



*Based on a 7-point scale (range: 1–8, with higher scores indicating greater burden).

A higher proportion of women with moderate-to-severe VMS reported substantial negative impacts on overall QoL, enjoyment, activities, and self-confidence.¹¹



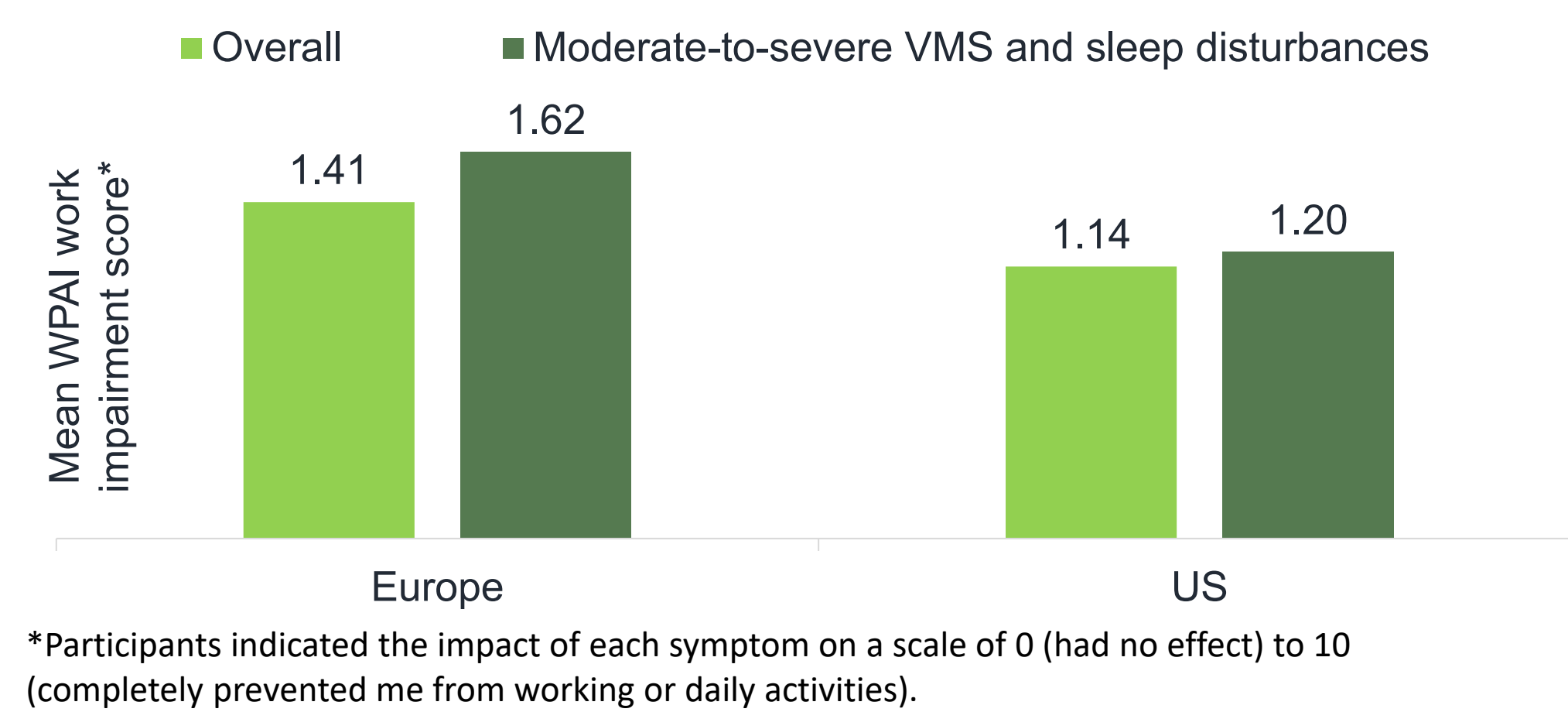
CONCLUSIONS

- ✓ This TLR confirms the substantial clinical, humanistic, and economic burden of menopause-related VMS.
- ✓ The prevalence of VMS is high across different geographic regions.
- ✓ VMS severity and concomitant sleep and/or mood symptoms are associated with decreased health-related QoL and increased work and activity impairment.
- ✓ There is an unmet need for effective and long-term management of menopause-related VMS, especially for women with moderate-to-severe symptoms.
- ⚠ Limitations: this TLR focuses on recent publications (2022–2025) excluding studies falling outside this range.

WORK IMPAIRMENT

- Activity impairment was assessed in 13 studies (14 references), with 7 (8 references) reporting results for moderate-to-severe VMS.^{6–9,11–14} The Work Productivity and Activity Impairment Questionnaire (WPAI) was the most frequently used assessment tool.^{3,4,6–8,11–14}

Mean activity impairment varied between regions and was higher in women with more severe VMS.⁷

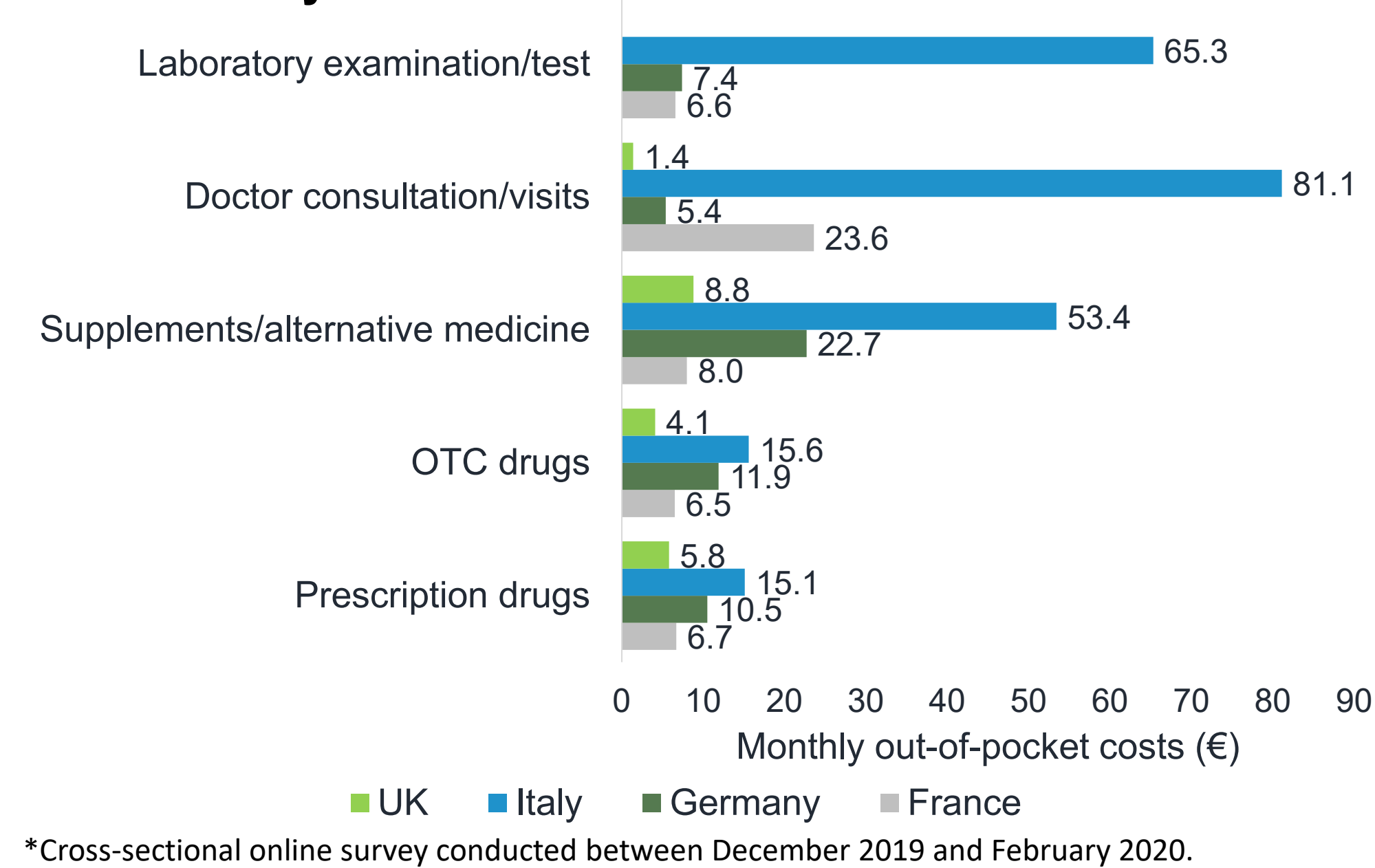


*Participants indicated the impact of each symptom on a scale of 0 (had no effect) to 10 (completely prevented me from working or daily activities).

ECONOMIC BURDEN

- Six studies reported costs associated with VMS treatment.^{8,15–19}
- Menopausal women experiencing sleep disturbances only (odds ratio [OR]: 1.35), VMS only (OR: 1.18), or both (OR: 1.26) were more likely to visit a physician than those with neither symptom.⁴

Among postmenopausal women with moderate-to-severe VMS, doctor consultations were associated with the highest out-of-pocket monthly costs, despite substantial between-country variations owing to differences in healthcare systems.^{*8}



*Cross-sectional online survey conducted between December 2019 and February 2020.

REFERENCES

1. Stearns V, et al. *Lancet*. 2002;360(9348):1851–61; 2. Thurston RC, Joffe H. *Obstet Gynecol Clin North Am*. 2011;38(3):489–501; 3. Schoof N, et al. *Value in Health*. 2024;27(12 Suppl):S596–7. Presented at ISPOR Europe 2024; 4. Charafi L, et al. *J Manag Care Spec Pharm*. 2024;30(10 c Suppl):S116–7. Abstract N9; 5. Slopian R, et al. *J Endocrinol Invest*. 2020;43(1):75–80; 6. Yuksel N, et al. *Menopause*. 2025;32(1):38–44; 7. Nappi RE, et al. *Menopause*. 2021;28(8):875–82; 8. Nappi RE, et al. *Maturitas*. 2023;167:66–74; 9. English M, et al. *J Patient Rep Outcomes*. 2021;5(1):37; 10. Nilsson S, et al. *J Am Heart Assoc*. 2024;13(17):e033648; 11. Kingsberg S, et al. *Climacteric*. 2024;27(4):364–72; 12. Todorova L, et al. *Menopause*. 2023;30(12):1179–89; 13. Stute P, et al. *Maturitas*. 2022;164:38–45; 14. Depree B, et al. *Menopause*. 2023;30(9):887–97; 15. Shiozawa A, et al. *Adv Ther*. 2024;41(5):1885–95; 16. Shiozawa A, et al. *Value in Health*. 2023;26(6 Suppl):S371–2. Presented at ISPOR Europe 2023; 17. Shiozawa A, et al. *Expert Rev Pharmacoecon Outcomes Res*. 2023;23(10):1117–28; 18. Stute P, et al. *Arch Gynecol Obstet*. 2022;306(2):513–21; 19. Shepherd JA, et al. *Menopause*. 2024;31(11):979–86.

DISCLOSURES

This study was funded by Bayer CC AG, Basel, Switzerland. Highfield Communication, Oxford, UK, provided medical writing assistance also with funding from Bayer CC AG. C. Proenca is an employee of Bayer. E. Olewinska and B. Smela are employees of Clever Access. J. Sassarini has received consulting fees from Astellas; honoraria from Gedeon Richter and Theramex; meeting/travel support from Bayer and Theramex; was an advisory board member for Bayer. R. Dunsmoor-Su serves as a consultant for Bayer Pharmaceuticals.

CONTACT INFORMATION

Catia.proenca@bayer.com