

# Chapter 1

## The Epidemiology and Burden of Skin Disease

Martin A. Weinstock & Mary-Margaret Chren

### REFERENCES

1. Barzilai DA et al: Dermatoepidemiology. *J Am Acad Dermatol* **52**:559, quiz 574, 2005
2. Williams HC, Strachan DP: *The Challenge of Dermatoepidemiology*. Boca Raton, Florida, CRC Press, 1997
3. Weinstock MA: *Dermatoepidemiology*. Philadelphia, W.B. Saunders Company, 1995
4. Moher D, Schulz KF, Altman D: The CONSORT statement: Revised recommendations for improving the quality of reports of parallel-group randomized trials. *JAMA* **285**:1987, 2001 [PMID: 11308435]
5. Weinstock MA: The JAAD adopts the CONSORT statement. *J Am Acad Dermatol* **41**:1045, 1999 [PMID: 10570399]
6. Gordis L: *Epidemiology*. Philadelphia, W. B. Saunders, 2000
7. Karagas MR: When subjects are not randomly assigned: The cohort approach. *J Cutan Med Surg* **2**:90, 1997
8. Heacock HJ, Rivers JK: Assessing scientific data: The case-control study as it applies to dermatology part I: The case-control method. *J Cutan Med Surg* **1**:151, 1997
9. Heacock HJ, Rivers JK: Assessing scientific data: The case-control study as it applies to dermatology part 2: Interpreting the results. *J Cutan Med Surg* **2**:35, 1997
10. Sackett DL: Bias in analytic research. *J Chron Dis* **32**:51, 1979 [PMID: 447779]
11. Susser M: *Causal Thinking in the Health Sciences: Concepts and Strategies of Epidemiology*. New York, Oxford University Press, 1973
12. Hill AB: Environment and disease: Association or causation? *Proc R Soc Med* **58**:295, 1965 [PMID: 14283879].
13. Weinstock MA: Epidemiology of melanoma. In: *Current Research and Clinical Management of Melanoma*, edited by Nathanson L. Boston, Kluwer Academic Publishers, 1993, p. 56
14. Percy C, Stanek E, Gloeckler L: Accuracy of cancer death certificates and its effect on cancer mortality statistics. *Am J Public Health* **71**:242, 1981 [PMID: 7468855]
15. Weinstock MA, Reynes JF: Validation of cause of death certification for outpatient cancers: The contrasting cases of melanoma and mycosis fungoides. *Am J Epidemiol* **148**:1184, 1998 [PMID: 9867264]
16. Weinstock MA et al: Inaccuracies in certification of nonmelanoma skin cancer deaths. *Am J Public Health* **82**:278, 1992 [PMID: 1739165]
17. Lewis KG, Weinstock MA: Nonmelanoma skin cancer mortality (1988–2000): The Rhode Island follow-back study. *Arch Dermatol* **140**:837, 2004 [PMID: 15262694]
18. Barzilai DA, Weinstock MA: Deaths due to cutaneous T-cell lymphoma (CTCL): Bias of certification and a revised estimate of national mortality. *Epidemiology* **19**:761–762, 2008
19. Jemal A et al: Recent trends in cutaneous melanoma incidence among whites in the United States. *J Natl Cancer Inst* **93**:678, 2001 [PMID: 11333289]
20. Weinstock MA, Gardstein BA: Twenty-year trends in the reported incidence of mycosis fungoides and associated mortality. *Am J Public Health* **89**:1240, 1999 [PMID: 10432915]
21. Weinstock MA: Overview of ultraviolet radiation and cancer: What is the link? How are we doing? *Environ Health Perspect* **103**(Suppl. 8):251, 1995
22. Rogers HW et al: Incidence estimate of non-melanoma skin cancer in the United States, 2006. *Arch Dermatol* **146**:283–287, 2010
23. Rzany B et al: Epidemiology of erythema exudativum multiforme majus, Stevens-Johnson syndrome, and toxic epidermal necrolysis in Germany (1990–1992): Structure and results of a population-based registry. *J Clin Epidemiol* **49**:769, 1996 [PMID: 8691227]
24. Roujeau JC et al: Toxic epidermal necrolysis (Lyell syndrome). Incidence and drug etiology in France, 1981–1985. *Arch Dermatol* **126**:37, 1990 [PMID: 2134982]

25. Dickel H et al: Occupational skin diseases in northern Bavaria between 1990 and 1999: A population-based study. *Br J Dermatol* **145**:453, 2001 [PMID: 11531836]
26. Johnson M-LT, Roberts J: *Skin Conditions and Related Need For Medical Care Among Persons 1-74 Years, United States, 1971-74 (DHEW Publication No. (PHS) 79-1660)*. Hyattsville, Maryland, National Center for Health Statistics, 1978
27. Rea JN, Newhouse ML, Halil T: Skin disease in Lambeth: A community study of prevalence and use of medical care. *Br J Prev Soc Med* **30**:107, 1976 [PMID: 133742]
28. Foley P et al: The frequency of common skin conditions in preschool-age children in Australia: Atopic dermatitis. *Arch Dermatol* **137**:293, 2001 [PMID: 11255327]
29. Brandrup F, Green A: The prevalence of psoriasis in Denmark. *Acta Derm Venereol* **61**:344, 1981 [PMID: 6173992]
30. Weinstock MA: Public health messages regarding skin cancer. *J Invest Dermatol* **123**:xvii, 2004
31. Chren MM, Weinstock MA: Conceptual issues in measuring the burden of skin diseases. *J Invest Dermatol Symp Proc* **9**(2):97-100, 2004
32. Grosse SD, et al: Disability and disability-adjusted life years: Not the same. *Public Health Rep* **124**(2):197-202, 2009
33. Chren M: Interpretation of quality-of-life scores. *J Invest Dermatol* **130**(5):1207-1209, 2010
34. Williams HC, Grindlay DJ: What's new in atopic eczema? An analysis of systematic reviews published in 2007 and 2008. Part 2. Disease prevention and treatment. *Clin Exp Dermatol* **35**(3):223-227, 2010
35. Albrecht J et al: The CLASI (Cutaneous Lupus Erythematosus Disease Area and Severity Index): An outcome instrument for cutaneous lupus erythematosus. *J Invest Dermatol* **125**(5):889-894, 2005
36. Fredriksson T, Pettersson U: Severe psoriasis—Oral therapy with a new retinoid. *Dermatologica* **157**:238-244, 1978
37. Kunz B et al: Clinical validation and guidelines for the SCORAD index: Consensus report of the European Task Force on Atopic Dermatitis. *Dermatology* **195**(1):10-19, 1997
38. Schmitt J, Langan S, Williams HC: What are the best outcome measurements for atopic eczema? A systematic review. *J Allergy Clin Immunol* **120**(6):1389-1398, 2007
39. Spuls PI et al: How good are clinical severity and outcome measures for psoriasis?: Quantitative evaluation in a systematic review. *J Invest Dermatol* **130**(4):933-943, 2010
40. Ware J: *SF-36 Health Survey Manual and Interpretation Guide*. Boston, The Health Institute, New England Medical Center, 1993
41. Ware J, Jr., Kosinski M, Keller SD: A 12-Item Short-Form Health Survey: Construction of scales and preliminary tests of reliability and validity. *Med Care* **34**(3):220-233, 1996
42. Finlay AY, Khan GK: Dermatology life quality index (DLQI)—A simple practical measure for routine clinical use. *Clin Exper Dermatol* **19**:210-216, 1994
43. Chren MM et al: Improved discriminative and evaluative capability of a refined version of Skindex, a quality-of-life instrument for patients with skin diseases. *Arch Dermatol* **133**(11):1433-1440, 1997
44. Chren MM et al: Measurement properties of Skindex-16, A brief quality-of-life measure for patients with skin diseases. *Journal of Cutaneous Medicine and Surgery* **5**(2):105-110, 2001
45. Charman CR, Venn AJ, Williams HC: The patient-oriented eczema measure: Development and initial validation of a new tool for measuring atopic eczema severity from the patients' perspective. *Arch Dermatol* **140**(12):1513-1519, 2004
46. Fleischer AB et al: Patient measurement of psoriasis disease severity with a structured instrument. *J Invest Dermatol* **102**:967-969, 1994
47. Majeski CJ et al: Itch Severity Scale: A self-report instrument for the measurement of pruritus severity. *Br J Dermatol* **156**(4):667-673, 2007
48. Desai NS et al: A pilot quality-of-life instrument for pruritus. *J Am Acad Dermatol* **59**(2):234-244, 2008
49. Adult Specialty Care Questionnaire 1.0: Agency for Health Care Research and Quality (AHRQ), 2010, [http://www.cahps.ahrq.gov/content/products/CG/PROD\\_CG\\_CG40Products.asp?p=1021&s=213](http://www.cahps.ahrq.gov/content/products/CG/PROD_CG_CG40Products.asp?p=1021&s=213), accessed Mar 8, 2010.
50. Chen SC et al: A catalog of dermatology utilities: A measure of the burden of skin diseases. *J Invest Dermatol Symp Proc* **9**(2):160-168, 2004
51. Delfino M, Jr. et al: Willingness-to-pay stated preferences for 8 health-related quality-of-life domains in psoriasis: A pilot study. *J Am Acad Dermatol* **59**(3):439-447, 2008
52. Both H et al: Critical review of generic and dermatology-specific health-related quality of life instruments. *J Invest Dermatol* **127**(12):2726-2739, 2007

53. Beyer V, Wolverson SE: Recent trends in systemic psoriasis treatment costs. *Arch Dermatol* **146**(1):46-54, 2010
54. Gordon LG et al: Regular sunscreen use is a cost-effective approach to skin cancer prevention in subtropical settings. *J Invest Dermatol* **129**(12):2766-2771, 2009
55. Bickers DR et al: The burden of skin diseases: 2004 a joint project of the American Academy of Dermatology Association and the Society for Investigative Dermatology. *J Am Acad Dermatol* **55**(3):490-500, 2006