

Christine T. Wood, Ph.D.
Principal

Professional Profile

Dr. Christine Wood is a Principal Scientist and Director of Exponent's Human Factors practice. She has spent over 20 years researching the impact of safety- and health-related information on human behavior and injury reduction. She has applied the area of human information processing, involving aspects of attention, learning, memory, decision-making, and behavioral response, to risk communications. She has investigated and identified factors that influence compliance with warnings and developed a scientific framework for predicting effectiveness. She has evaluated a wide variety of strategies for dissemination of warnings. Her work includes the analysis, evaluation, and development of safety information for many different products, such as consumer products, medical devices and medications, workplace equipment, and motor vehicles. She has also studied and published papers on the historical use of warnings on products in the United States throughout the twentieth century.

Much of Dr. Wood's work focuses on issues related to child safety. She has applied her knowledge of child development to the analysis of accident patterns that are unique to children. As part of her research, she has conducted numerous studies involving the testing of hundreds of children to better understand their capabilities and methods of interacting with products. The results of her studies have been used in the design of products, development of product design standards, and the evaluation of the child resistance of products. She has also studied and analyzed the knowledge of parents regarding child hazards and the strategies they use to reduce child injury.

Dr. Wood has analyzed injury/illness, adverse event, and accident data available from a wide range of sources such as those gathered by government agencies. She has used quantitative analyses to develop and assess the effectiveness of safety information and dissemination methods. She has presented quantitative analyses of accident patterns for individual products to regulatory agencies for consideration in potential product recalls. She has designed and collected data using written questionnaires, interviews, and group discussions.

Prior to joining Exponent, Dr. Wood held research positions with companies RMC Research Corporation, SRA Technologies, Inc., and the Institute for Mathematical Studies in the Social Sciences where she conducted studies in the areas of measuring the effectiveness of education and training programs and developing a federally-mandated evaluation systems for education programs used nationwide.

Academic Credentials and Professional Honors

Ph.D., Experimental Psychology, Stanford University, 1974
B.A., Psychology, Stanford University (with Distinction and Honors), 1971

Publications

Huntley-Fenner G, Wood CT, Sala JB. Study of the impact of California's Proposition 65 warnings on safety related awareness and behaviors. Society for Risk Analysis Proceedings Abstracts, San Antonio TX, December 9–12, 2007.

Wood CT, Sala JB, Sanders K, Cassidy P. Trends in consumer product warnings found in voluntary standards. Proceedings, 50th Annual Meeting of the Human Factors and Ergonomics Society, Santa Monica, CA, 2006.

Sanders KJ, Wood CT, Sala JB. Human factors and the design of medical devices. In: Bringing Your Medical Device to Market, Food and Drug Law Institute, Second Edition. Reiss JB (ed), pp. 197–204, Washington DC, 2006.

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Wood CT, Arndt SR, McCarthy RL. Using risk analysis to reduce the hazards on playgrounds. Proceedings, National Manufacturing Week Conference, Chicago, IL, March 1998.

Wood CT. Design challenges to the use of child resistance as a safety strategy. Proceedings, Human Factors and Ergonomics Society Annual Meeting, pp 442–446, October 1997.

Ayres TJ, Wood CT, Schmidt RA, Bjelajac VM. Warning labels and the state of the art. Proceedings, Silicon Valley Ergonomics Conference and Exposition, Palo Alto, CA, May 1996.

McCarthy RL, Ayres, TJ, Wood CT. Risk and effectiveness criteria for using on-product warnings. *Ergonomics* 1995; 38, 11, 2164-2175.

Ayres TJ, Beyer R, Wood CT. Ergonomics and the treatment plant. *Operations Forum* 1995; 12.

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Beyer RR, McCarthy RL, Wood CT. Ergonomic analysis of extension ladders. Proceedings, Human Factors and Ergonomics Society Annual Meeting, 1994.

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Wood CT, McCarthy RL, Fowler G, Robinson JN. A comparative analysis of the annual injury risk for motorized vehicular recreation. Proceedings, American Society of Mechanical Engineers Winter Annual Meeting, New Orleans, LA, November 1993.

Ayres TJ, Wood CT, et al. Applications of risk analysis to off-road vehicles. Proceedings, Society of Automotive Engineers Off-Highway and Powerplant Congress, September 1992.

Ayres TJ, Gross MM, Horst DP, Wood CT, Beyer RR, Acomb DB, Bjelajac VM. Do subjective ratings predict warning effectiveness? Proceedings, Human Factors Society Annual Meeting, 1990.

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Ayres TJ, Gross MM, Wood CT, Horst DP, Beyer RR, Robinson JN. What is a warning and when will it work? Proceedings, Human Factors Society Annual Meeting, 1989.

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Juola JF, Fischler I, Wood CT, Atkinson RC. Recognition time for information stored in long-term memory. Perception & Psychophysics 1971; 10:8-14, 1971.

Reports

Wood CT, Gamel NN, Roberts SJ. Evaluation of the Pacific World Telecourse Prototype. RMC Research Corporation, June 1988.

Millsap M, Jastrzab J, Wood CT. State and local response to the Perkins Act: A conceptual framework. Abt Associates, December 1987.

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Tallmadge GK, Wood CT, Roberts SJ. Availability and utility of existing databases for addressing issues related to the impact of ECIA Chapter 1 Legislation and Regulations. SRA Technologies, Inc., 1984.

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Wood CT, Gamel NN, Tallmadge GK, Binkley JL. State ESEA Title I Reports: Review and analysis of past reports, and development of a model reporting system and format. RMC Research Corporation, October 1975.

Horst DP, Tallmadge GK, Wood CT. Measuring achievement gains in educational projects. RMC Research Corporation, October 1974; also published as “A Practical Guide for Measuring Project Impact on Student Achievement,” Stock No. 1780–01460, U.S. Government Printing Office, Washington, DC.

Presentations

Sala JB, Nichols E, Muhammad R, Lakhiani S, Rauschenberger R, Wood CT. Government, warnings, and safety information: A comparison of inter-agency regulations and guidance. 3rd International Conference on Applied Human Factors and Ergonomics (AHFE), July 17–20, 2010.

Beyer RR, Ayres TJ, Wood CT. Applying basic principles of human factors and ergonomics. 67th Annual Conference and Exposition of the Water Environment Federation, No. 947801, Chicago, IL, October 1994.

Ayres TJ, Wood CT. Memory problems for survey-based estimates of population activity. 3rd Practical Aspects of Memory Conference, College Park, MD, August 1994

McCarthy RL, Ayres TJ, Wood CT, Robinson JN. Risk-based warning design. American Bar Association National Institute, Product Warnings, Instructions and User Information. Washington, DC, January 1994.

Wood CT, McCarthy RL, Ayres TJ. Human subject testing in the development of warning labels. American Bar Association National Institute, Product Warnings, Instructions and User Information, Washington, DC, January 1994.

Editorial Boards

- Member of Editorial Board for *Journal of Children's Health*, 2003–2005

Professional Affiliations

- Human Factors and Ergonomics Society (member)
- Society for Risk Analysis (member)
- American Educational Research Association (member)