

# Study on Good Programming Practices in Health and Life Sciences

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## **Sponsored by the Project Team for Good Programming Practices in Health and Life Sciences**

The Good Programming Practice Project Team believes that it would be useful to understand the prevalence and usefulness of Good Programming Practice across the health and life sciences industries. The Good Programming Practice Project Team has been conducting a study to assess the state of programming practices and we would love to have your participation. The study consists of two modules; a registration and a SAS code review and will focus on a basic list of widely agreed upon good SAS programming practices. An outline of the questions asked is given below.

### **Initial Results for Study on Good Programming Practices**

Range of respondents: Pharmaceutical companies, biotechnology companies, CROs and consultancies.

Proportion of respondents with a Good Programming Practice guidance document 70%

Proportion of respondents for which Good Programming Practice document mandatory 56% (80% of those with a guidance document).

[File:GPP Survey Results-30AUG2013.pdf](#)

### **Overview of Study Questions**

- Use of standard header
- Descriptive comments in each section of the program
- Consistent use of appropriate spacing between statements and sections
- Consistent use of appropriate indentation on each line
- Consistently placing only one statement per line
- Breaking lines in a neat and logical way
- Consistently ending steps with run and quit where appropriate
- Consistently explicitly referencing input dataset in each step or procedure
- Program is logically organized
- Standard naming convention for temporary datasets
- Standard naming convention for variables in temporary datasets
- Standard naming convention for formats
- Standard naming convention for macros
- Explicitly code character to numeric and numeric to character conversions
- Explicitly code to handle missing data
- No overwriting temporary datasets within a program
- Check log for errors and warnings
- Clean-up work area after each program when running interactively
- Clean-up work area before each program when running interactively

The registration will establish a platform from which we can launch additional modules to collect data on areas of interest based on input from study participants. The results of the study will be kept strictly confidential but will be presented in summary form at conferences, on discussion boards, and on Advance Hub.