

## SugarCRM: Operationalizing the Master Data Elements

Members of the SugarCRM Consortium  
South Dakota State University Study Center  
Southern and Central California Study Center – Orange County and San Diego County

SugarCRM is an open source software program for managing customer relationships that has been adapted for use in the National Children's Study. It is built with PHP scripting language and manages the operational data elements (ODEs) within the Master Data Elements Specifications (MDES). Two custom packages for Sugar have been released, one with all the ODEs and one with added features to improve Sugar's usability. The ODE package incorporates all operational tables and specific code lists released in MDES v2.0.01. Custom functionality was built to simplify the end-user experience for managing participant data. Examples of this functionality include: a participant summary screen that gives a quick overview of customizable participant information, a global search function to enhance search capabilities, automatic ID generation to create unique IDs where needed, automatic event generation with event windows for scheduling purposes, one-click functionality to convert a person to a participant and create necessary linkages and event scheduling linked up with central and personal calendars. Sample and specimen tracking within SugarCRM is also being explored. Data can be easily imported, exported as XML, suppressed and merged with data from other data collection tools to allow for upload of both operational and instrument data to the Vanguard Data Repository. Beta testing with production data has led to enhancements and improved user functionality, and collaboration with Booz Allen Hamilton to integrate SugarCRM and DCAS is currently underway. The SugarCRM Consortium meets weekly and information about the open source project can be found on Sourceforge at <http://sourceforge.net/projects/ncs-sugar/>.