

PROGRAM MANAGEMENT BUSINESS AREA DECISION SUPPORT SYSTEM / DATA WAREHOUSE CHECKLIST
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STATE:	DATE OF REVIEW:	REVIEWER:
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DECISION SUPPORT SYSTEM / DATA WAREHOUSE (DSS) CHECKLIST

DECISION SUPPORT SYSTEM / DATA WAREHOUSE (DSS) CHECKLIST BACKGROUND
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Background for this checklist:

1. A Decision Support System (DSS) is defined in the SMM Part 11 Chapter 2 Section 11276.5, B. as follows: "A DSS is often a feasible means of managing data needs. DSS is a universal term describing a menu of hardware and software components which can be combined to facilitate access to data and data analysis to serve a wide range of end-users. A DSS provides a mechanism to process data in a manageable quantity and format which is easily accessed by users to manipulate data online. A DSS can enhance the MAR and SUR functionalities by giving States the ability to access large volumes of data to produce customized reports."
2. The data storage and retrieval component of the DSS is often referred to as the "Data Warehouse" (DW) or the DSS relational database. References in the DSS Checklist criteria to the "database" are references to a Data Warehouse if the State uses that language.
3. System review requirements for a DSS are based on a 1996 HCFA survey and report on Medicaid Decision Support Systems, precedents established by approvals of APDs for DSS since 1990, and State individual specifications for the DSS approved for FFP by CMS.
4. User's may also review ACF's technical report on DSS/DW for TANF program objectives available on the ACF website at <http://www.acf.hhs.gov/>
5. Each State's implementation of a DSS can be different. The certification review team must understand the scope of the State's DSS in order to determine which checklist questions to use. This checklist contains a list of common questions; the checklist will need to be aligned with the actual functionality of the State's DSS prior to its use as part of the State's certification toolkit. Examples of DSS differences are:
 - a. Includes (or not) State Management reports, e.g., old MARS
 - b. Includes or supplements (or not) old SURS
 - c. Produces some Federal reports
 - d. Reporting capabilities can range from simple inquiries, e.g., Claim Detail reports, to multi-tiered analytical reports
 - e. Can accommodate numerous COTS for data analysis (e.g., patterns of utilization, "What-if" analysis, trend analysis)
 - f. Can include Medicaid data only or can link to Vital Statistics, national databases, clinical data, and other sources
 - g. Transactions include all Medicaid claims, some Medicaid claims, optional encounter data, optional number of years of historical data
 - h. The DSS may be for Medicaid use only or may be shared with other agencies on a cost allocation basis

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- i. Type, size, configuration of the database or data warehouse may vary by State
- 6. Data is refreshed periodically on a schedule determined by the State but must be timely enough to meet users' needs.
- 7. The DSS data warehouse should support security, data cleansing, data archiving, data management, and data standards.

Sources for the criteria in this checklist are as follows:

SMM – State Medicaid Manual, MMIS Section, available from <http://www.cms.hhs.gov/Manuals/PBM/list.asp>, Document 45

IBP – Industry Best Practices. Items are selected from RFPs for MMISs developed by states and approved by CMS.

HCFA Report - Report on Medicaid Decision Support Systems, HCFA, 1996. Available from <http://www.cms.hhs.gov/MMIS/HCFAReport>

BUSINESS OBJECTIVES		
Ref #	Business Objectives	Comments
DSS1	Support better understanding and management of the Medicaid program by collecting and organizing Medicaid-related data and making this data available in a timely and effective manner.	
DSS2	Provide timely and effective reports for management planning and control.	
DSS3	Support improved analysis for decision making.	
DSSSS1	<i>Add State-specific business objectives for the Decision Support System/Data Warehouse business area here.</i>	

DSS1 – SUPPORT BETTER UNDERSTANDING AND MANAGEMENT OF MEDICAID PROGRAM					
Ref #	System Review Criteria	Source	Yes	No	Comments
DSS1.1	Identifies relationships between key entities in the Medicaid enterprise.	HCFA Report			
DSS1.2	At a minimum, transfers data from MMIS claims history, recipient enrollment, provider enrollment, and primary reference data (e.g., diagnosis, procedure, National Drug Code (NDC), and pricing) information.	HCFA Report			

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DSS1 – SUPPORT BETTER UNDERSTANDING AND MANAGEMENT OF MEDICAID PROGRAM					
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Ref #	System Review Criteria	Source	Yes	No	Comments
DSS1.3	Accepts data in a variety of formats from a variety of additional sources, e.g., Vital Statistics, MCO encounter data, Benefit Manager encounter data (pharmacy, dental, mental health), Waiver program data, Census Bureau.	HCFA Report			
DSS1.4	Refreshes or replaces all historical claim data, recipient enrollment, provider enrollment, and other primary reference data on a scheduled basis.	HCFA Report			
DSS1.5	Associates clinical data (e.g., claims attachment) with the claim record.	IBP			
DSS1.6	Maintains synchronization of claims and encounter record dates with provider and Beneficiary record dates (i.e., a claim or encounter is always linked to the provider status and Beneficiary status segments associated with the date of service).	HCFA Report			
DSS1SS.1	<i>Add State-specific criteria for this objective here.</i>				

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DSS2 – PROVIDE TIMELY AND EFFECTIVE REPORTS FOR MANAGEMENT PLANNING AND CONTROL					
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Ref #	System Review Criteria	Source	Yes	No	Comments
DSS2.1	Supports simple queries and preformatted reports that are easy to access, follow a user-friendly protocol, and produce responses immediately.	SMM			
DSS2.2	Provides ad hoc reporting capability that presents summarized information on key factors (e.g., number of enrollees, total dollars paid) to executive staff upon request.	SMM			
DSS2.3	Provides ad hoc query capability for retrieval of data relevant to specific operational units, e.g., claims resolution, prior authorization, and medical necessity review.	SMM			
DSS2.4	Supports retrieval and presentation of data associated with geographic indicators such as by state, by county, and by zip code.	IBP			
DSS2.5	Supports Federal reporting requirements when these requirements are met through the DSS.	SMM			
DSS2.6	Extends system flexibility by adding enhanced reporting above and beyond what is available through other MMIS functions.	SMM			
DSS2.7	Supports a variety of formats and output options (e.g., Word, Excel, HTML, Access database, or GUI format).	SMM HCFA Report			

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DSS2 – PROVIDE TIMELY AND EFFECTIVE REPORTS FOR MANAGEMENT PLANNING AND CONTROL
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Ref #	System Review Criteria	Source	Yes	No	Comments
DSS2.8	Provides online assistance to users to support effective use of data query, data analysis, and report formatting capabilities.	SMM			
DSS2SS.1	<i>Add State-specific criteria for this objective here.</i>				

DSS3 – SUPPORT IMPROVED ANALYSIS FOR DECISION MAKING

Ref #	System Review Criteria	Source	Yes	No	Comments
DSS3.1	Maintains easy access to data relevant to the needs of staff as anticipated in the APD and/or RFP, e.g., claims adjudication, prior approval, medical review, utilization review, and analysis of specific payment areas (pharmacy, dental, inpatient, etc.).	HCFA Report			
DSS3.2	Supports a range of analysis actions including: benefit modeling, utilization management, provider-Beneficiary-MCO profiling, program planning, forecasting, program assessment, provider or contractor performance, quality assurance, fraud detection, comparison of fee-for-service and managed care, and other functions as described in the APD and/or RFP.	HCFA Report			

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DSS3 – SUPPORT IMPROVED ANALYSIS FOR DECISION MAKING

Ref #	System Review Criteria	Source	Yes	No	Comments
DSS3.3	Supports analytical staff through sophisticated analytical tools that perform specific analytical functions, e.g., statistical analysis, comparative analysis, financial trends, case-mix adjustments within time ranges specified in the APD and/or RFP.	HCFA Report			
DSS3.4	Collects and summarizes data for specific user communities (e.g., data marts or cubes) such as program analysis staff, research group, and financial management unit.	HCFA Report			
DSS3.5	Provides reports that allow users to drill down from summarized data to detailed data.	IBP			
DSS3.6	Demonstrates support for standard summarized data to be accessed by agency executives (e.g., Executive Information System or dashboards).	IBP			
DSS3SS.1	<i>Add State-specific criteria for this objective here.</i>				

DSS-SS1 – FIRST STATE-SPECIFIC OBJECTIVE

Ref #	System Review Criteria	Source	Citation
DSS-SS1.1	<i>Add criteria based on the APD, RFP, etc., that are relevant to this State-specific objective.</i>		