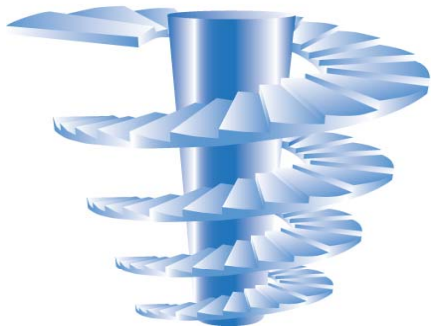


EW Solutions

World-Class Data Warehousing Models Healthcare – Clinical



To purchase these models please email:
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EW Solutions' Background

EW Solutions is a Chicago-headquartered strategic partner and full life-cycle systems integrator providing both **award winning** strategic consulting and **full-service implementation services**. This combination affords our clients a full range of services for any size enterprise information management, managed meta data environment, and/or data warehouse/business intelligence initiative. Our notable client projects have been featured in the Chicago Tribune, Federal Computer Weekly, Crain's Chicago Business, and won the 2004 Intelligent Enterprise's RealWare award, 2007 Excellence in Information Integrity Award nomination and DM Review's 2005 World Class Solutions award.



2007 Excellence in Information Integrity Award Nomination



World Class Solutions Award Data Management



Best Business Intelligence Application Information Integration

Client: Department of Defense



For more information on our Strategic Consulting Services, Implementation Services, or World-Class Training, call toll free at 866.EWS.1100, 866.397.1100, main number 630.920.0005 or email us at Info@EWSolutions.com

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EW Solutions' Partial Client List

Arizona Supreme Court
Bank of Montreal
BankUnited
Basic American Foods
Becton, Dickinson and Company
Blue Cross Blue Shield companies
Branch Banking & Trust (BB&T)
British Petroleum (BP)
California DMV
College Board
Corning Cable Systems
Countrywide Financial
Defense Logistics Agency (DLA)
Delta Dental
Department of Defense (DoD)
Driehaus Capital Management
Eli Lilly and Company
Federal Aviation Administration
Federal Bureau of Investigation (FBI)
Fidelity Information Services

Ford Motor Company
GlaxoSmithKline
Harris Bank
The Hartford
Harvard Pilgrim HealthCare
Health Care Services Corporation
Hewitt Associates
HP (Hewlett-Packard)
Information Resources Inc.
International Paper
Janus Mutual Funds
Johnson Controls
Key Bank
LiquidNet
Loyola Medical Center
Manulife Financial
Mayo Clinic
Microsoft
National City Bank
Nationwide

Neighborhood Health Plan
NORC
Physicians Mutual Insurance
Pillsbury
Quintiles
Sallie Mae
Schneider National
Secretary of Defense/Logistics
South Orange County Community College
SunTrust Bank
Target Corporation
The Regence Group
Thomson Multimedia (RCA)
United Health Group
United States Air Force
United States Navy
United States Transportation Command
USAA
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Healthcare – Clinical Data Warehousing Model

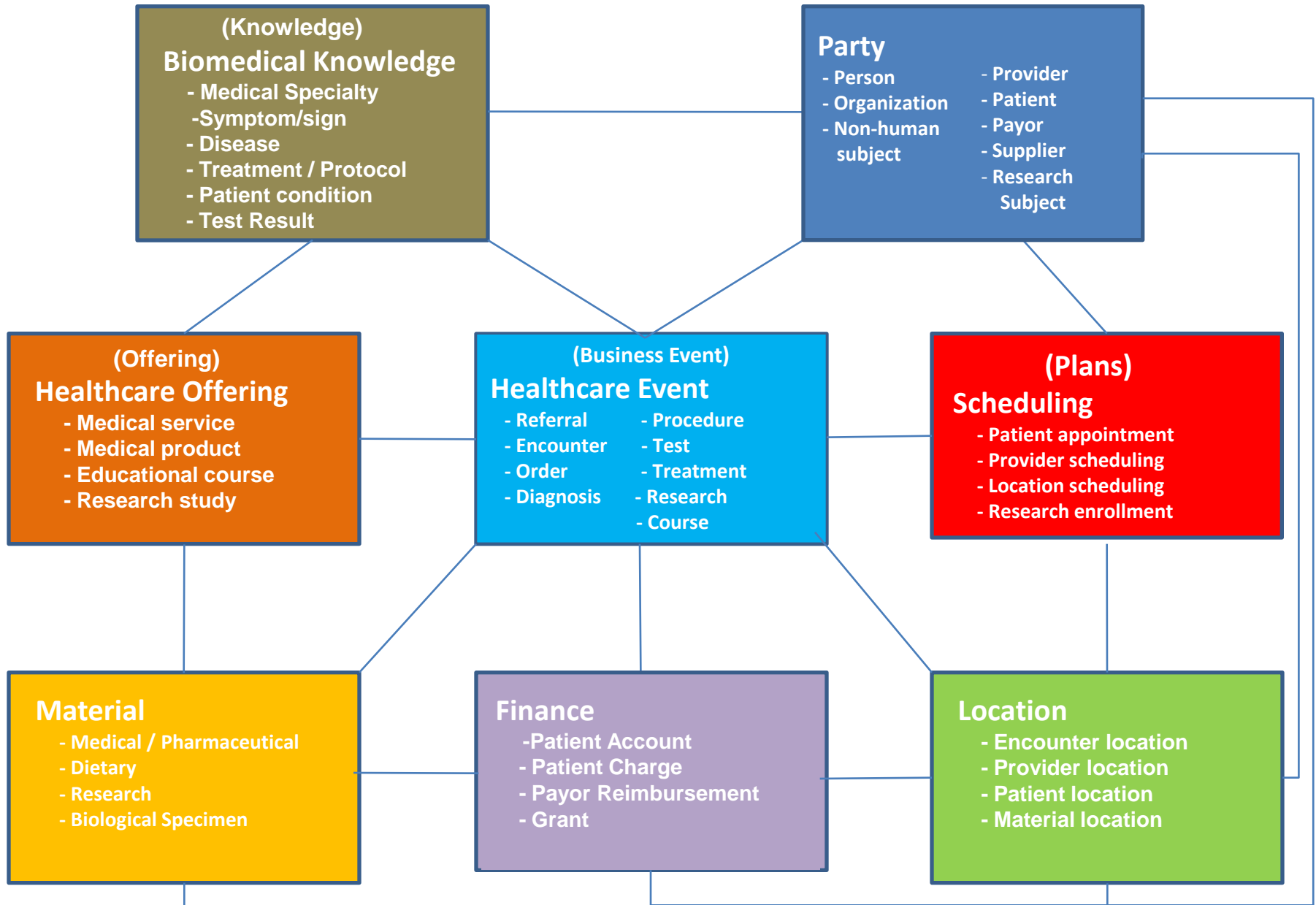
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EW Solutions' Healthcare Industry Subject Area Model (ISAM)





Healthcare Key Data Entities

Healthcare – Key Data Entities:

- Primary aim of the Healthcare models is to be able to measure Clinical Care and Healthcare Quality, including KPI's (key performance indicators) proposed by the American Health Research and Quality (AHRQ) and approved and recommended by the National Quality Forum (NQF)
- Healthcare Quality is a major concern (in itself) **and** a means for reducing the cost of healthcare. Improved quality means reduced costs (less care required, less litigation, etc)
- A key means to measure Healthcare Quality is to be able to track the entire lifecycle of patient care – from **Case > Episode of Care > Encounter > Clinical Care Delivery Event > Outcome**



Healthcare Key Data Entities

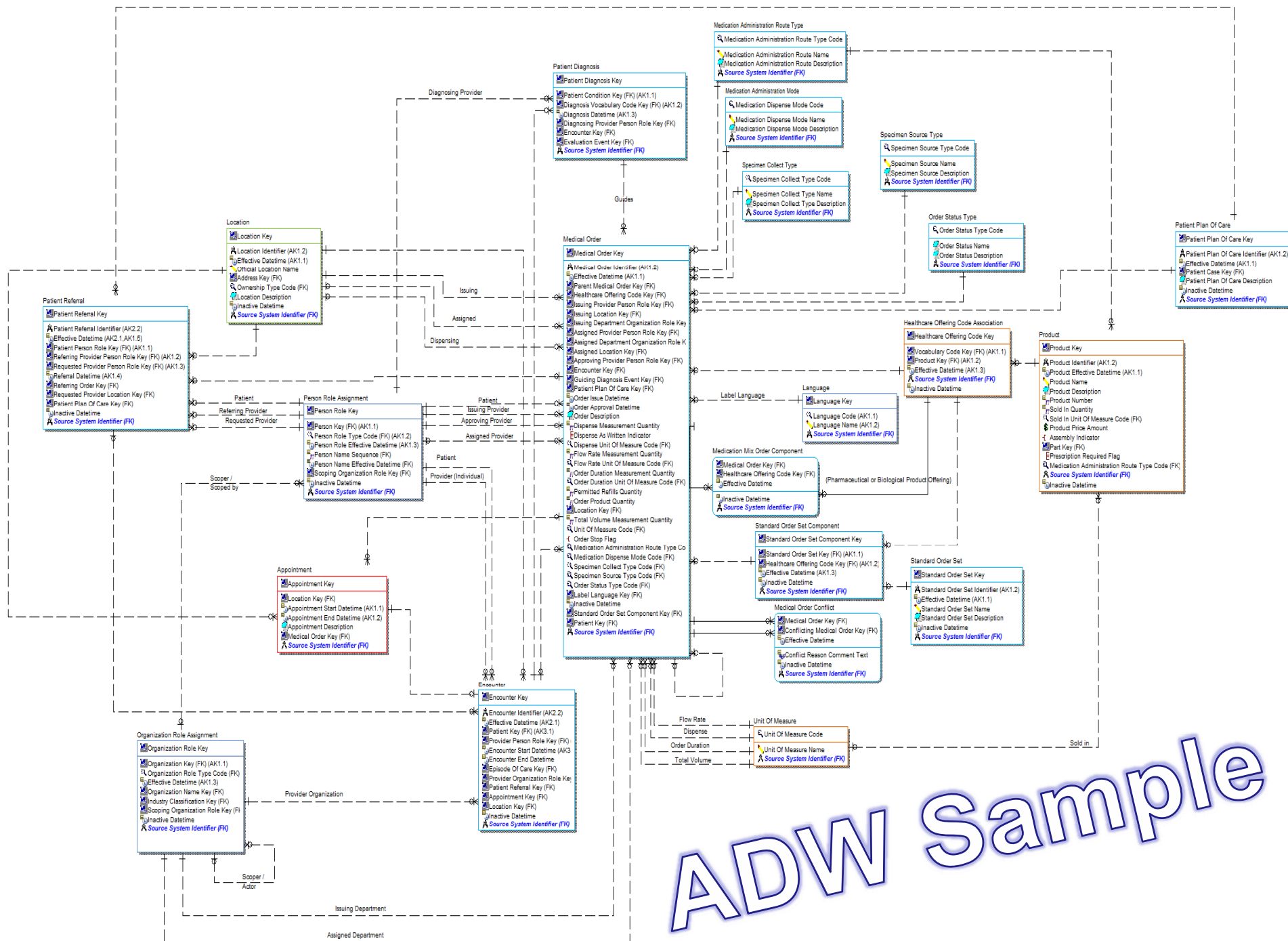
Healthcare – Key Data Entities:

- Comprehensive medical coding enabled for improved semantics – cross vocabulary (e.g. ICD9, SNOMED, LOINC) analysis facilitated
- Users can perform analysis/reporting based on the coding scheme he/she is familiar with – analysis is not hindered by the different codes/terms for the same concept.
- For example, if a heart attack is coded as a myocardial infarction, cardiopulmonary arrest, or some other term – analysis of heart attacks not hindered due to the different terminology.



Healthcare – Atomic Data Warehouse

- The Atomic Data Warehouse is the central hub in which cleansed, standardized, and integrated data is stored in a mostly 3NF format (non-decomposable, non-redundant)
- Sole source for dependant, dimensional Data Marts
- Logical and physical representations
- Nearly every table has record versioning in place (except for very small, static tables) – to facilitate the most thorough historical analysis possible.
- Surrogate keys are used heavily for simplicity, ease of use, and performance
- Whenever a surrogate key is used – an alternate key(s) (AK) are used to identify the natural key(s) – to retain business meaning



ADW Sample



Healthcare Data Mart

- ❑ Dimensional model suited to high performance analytics and reporting on high volumes of patient care, diagnosis, and procedure data
- ❑ Utilizes conformed dimensions to enable drill-across from one analysis area to another
- ❑ Designed to support KPI's that many Healthcare providers and hospitals are interested in measuring
- ❑ Highly denormalized for query performance and ease of use
- ❑ Includes mapping to the ADW to facilitate rapid deployment



Healthcare – Clinical KPIs

Healthcare – Clinical KPI's

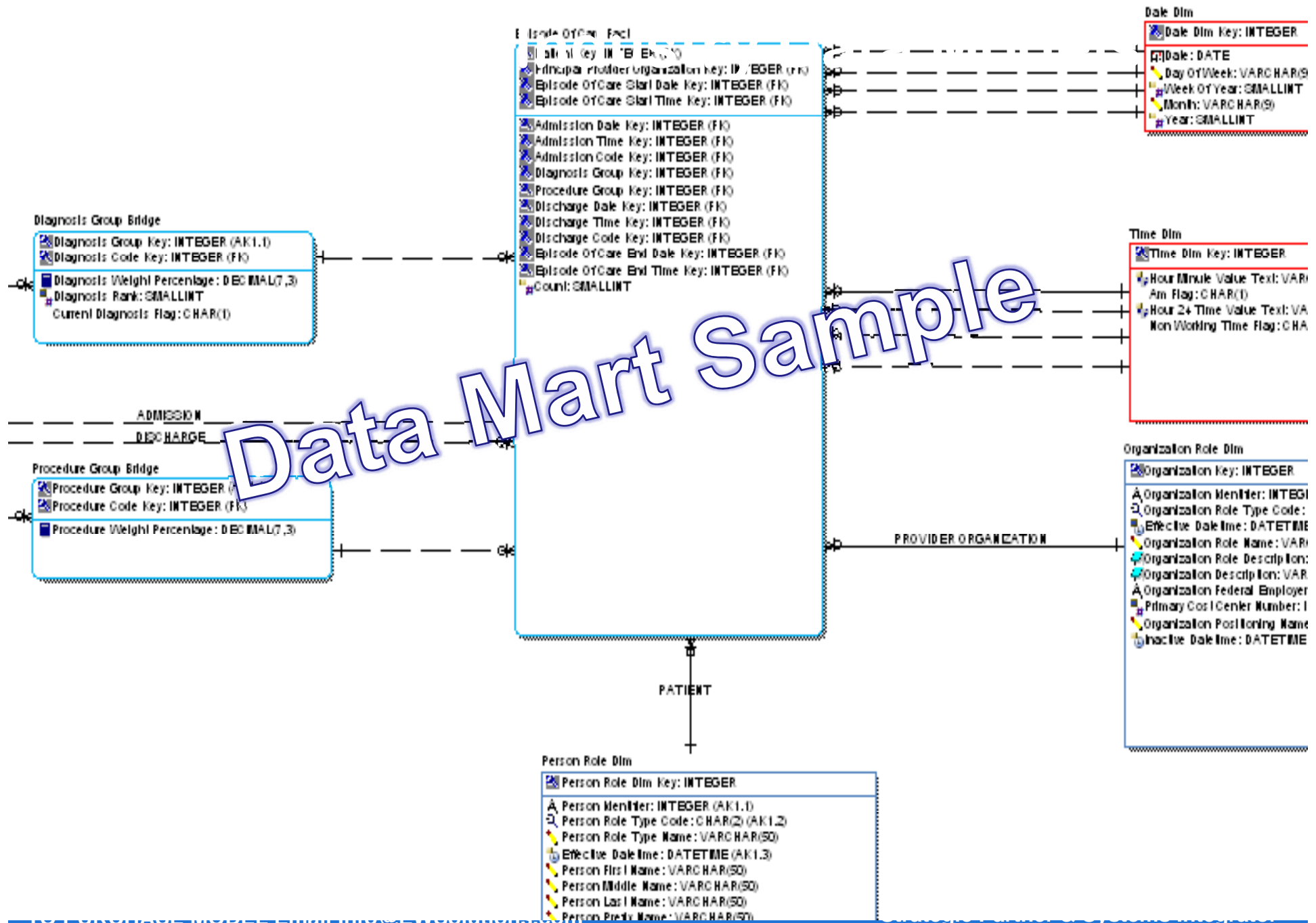
KPI's

- Hip Fracture Mortality
- Incidental Appendectomy
- Pediatric Heart Surgery Mortality Rate
- Pediatric Heart Surgery Volume
- Accidental Puncture Or Laceration
- Decubitus Ulcer
- Failure To Rescue

Drill Down Options

- Date/Time
- Patient Characteristics
- Procedure Types
- Discharge Types
- Provider Positioning Type
- Staff Specialty/Training/Certification

Data Mart Sample





Questions

**Email info@EWSolutions.com
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