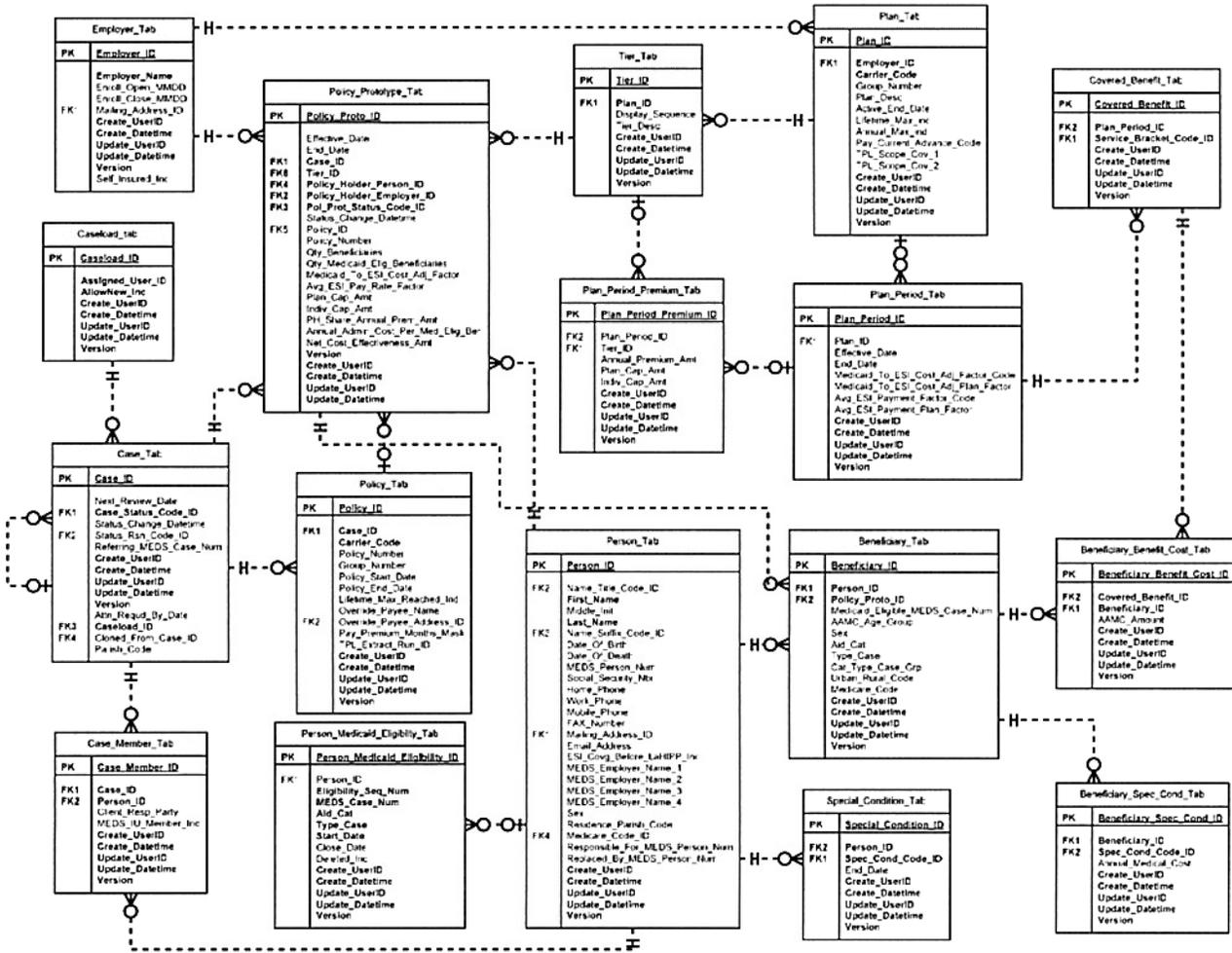


17 Appendix C: Data Model Summary

This section includes pictures of the Visio data model that is the repository of the LaHIPP database design and schema. For more detailed information of the schema see the accompanying "LaHIPP Visio Data Element Dictionary Report" that was described on page 306.

17.1 Core Entities



The Core section of the Entity Relationship Model shows all the major entities involved in the Core functionality of the LaHIPP System.

The following sections briefly summarize the purpose of each of the entities in the diagram.

17.1.1 Case, Person, Case Member, Medicaid Eligibility, Special Condition

When a MEDS Case is initially referred to LaHIPP via the "MEDS → LaHIPP Interface" (page 225), the interface creates a **Case_Tab** record to represent the LaHIPP Case. The Case is assigned to a Caseload by linking the Case_Tab record to a **Caseload_Tab** record.

For each MEDS Person referred along with the Case, the interface creates a **Person_Tab** record, and links the Person_Tab record to the Case_Tab record via a **Case_Member_Tab** link.

Each MEDS Person referred by MEDS may have a collection of **Person_Medicaid_Eligibility_Tab** records. Each one represents a contiguous period of time that the Person is Medicaid Eligible under a certain Category and Type-Case and a certain MEDS Case.

The "Special Condition" code table (not shown) defines the different Special Conditions that LaHIPP is concerned with. Special Conditions might include "Cancer", "Pregnancy", "Diabetes", etc. Each record in the **Special_Condition_Tab** table associates a Person with a Special Condition, and indicates that that Person has that Special Condition.

17.1.2 Employers, Plans, Tiers, Covered Benefits

Each instance of **Employer_Tab** represents one Employer of interest to the LaHIPP system.

Each instance of **Plan_Tab** represents one Plan. A particular Carrier offers a Plan to the employees of a particular Employer.

Each Plan may have several Tiers, such as "Employee Only", "Employee+Spouse", and "Family". Each Tier is a record in the **Tier_tab** table.

Some Plan information changes periodically, usually annually at annual re-enrollment. The Plan data that changes annually is stored as an effective-dated **Plan_Period_Tab** record associated with the Plan.

The annual Premium that is applicable to a certain Tier for a certain Plan_Period is defined on a **Plan_Period_Premium_Tab** that links the Plan_Period to the Tier.

The "Service Bracket" code table (not shown) defines the different Service Brackets known to LaHIPP. "Service Bracket" is synonymous with "benefit", as it represents a set of similar medical services that might be covered by a Plan. Service Brackets defined to LaHIPP include "Inpatient Hospital", "Outpatient Hospital", "Physician Services", "Ambulance", "Prescription", etc.

Each record in the **Covered_Benefit_Tab** table represents a link between a Plan_Period and a Service Bracket, and indicates that the medical services included in that Service Bracket are covered by the Plan for the duration of the Plan_Period.

In summary, the following tables are considered to be part of the Plan:

- Plan_Tab
- Plan_Period_Tab
- Tier_Tab
- Plan_Period_Premium_Tab
- Covered_Benefit_Tab

17.1.3 Policy Prototype, Beneficiary, Beneficiary Benefit Cost, Beneficiary Special Condition, and Policy

An employee cannot enroll in an ESI policy under LaHIPP until the LaHIPP Specialist has determined that it is cost-effective to do so. A potential policyholder could have several employers, and each employer may offer several ESI Plans. In order to decide which Plan is the most beneficial for the employee to enroll in, the specialist may create several Policy_Prototypes. Each Policy_Prototype is a "prototype" of a potential Policy. The Policy Prototype identifies the policyholder, the Carrier, the Employer, the Plan, the Tier, and a set of Beneficiaries. The system calculates the Cost-Effectiveness of the Policy Prototype. Eventually the specialist may select a single Policy Prototype to become the actual Policy. Internally the Status of the Policy Prototype is set to "Active" and it is linked to a Policy. The activated Policy Prototype "defines" the Policy until the Policy Prototype is superseded or the Policy is ended. Policy Prototypes that are not activated are discarded.

Each **Policy_Prototype_Tab** record is a Policy Prototype, and its attributes identify the Carrier, Employer, Plan, and Tier. Each Policy Prototype knows which Case it belongs to.

Each **Beneficiary_Tab** record links a LaHIPP Person to the Policy Prototype as a "beneficiary".

Each Beneficiary_Tab record has a collection of **Beneficiary_Benefit_Cost_Tab** records. For each Beneficiary_Tab record, there is one Beneficiary_Benefit_Cost_Tab record for each Covered_Benefit_Tab record linked to the Plan. One of the attributes of the Beneficiary_Benefit_Cost_Tab record is the AAMC_Amount, which records the Average Annual Medical Cost of the services in the "Service Bracket" for that individual beneficiary, based on the demographics of the person.

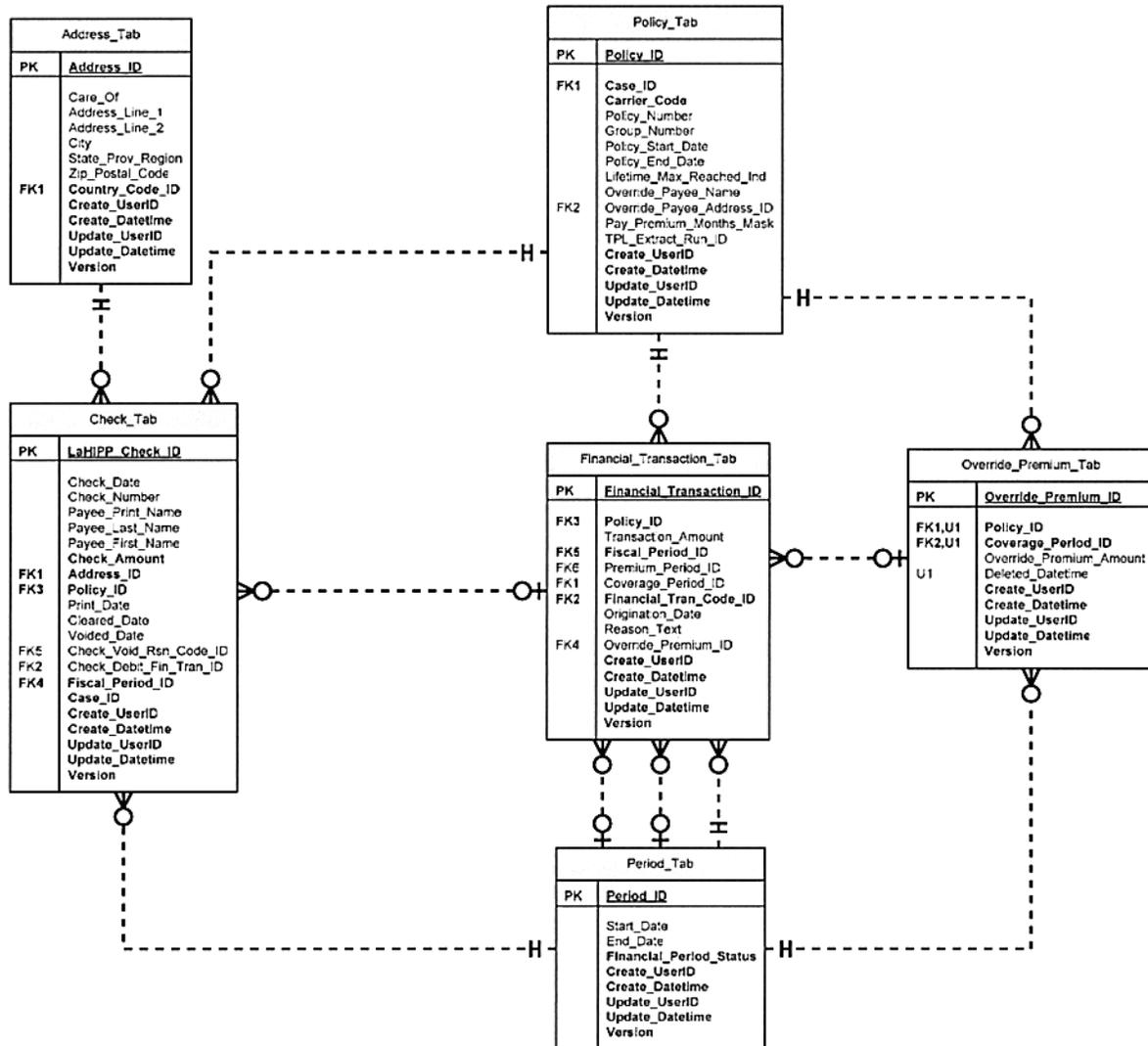
Each Beneficiary_Tab record may have a collection of one or more **Beneficiary_Spec_Cond_Tab** records. There is one Beneficiary_Spec_Cond_Tab record created for each Special Condition that the beneficiary (the Person) has at the time the Policy Prototype is created. The annual cost of the special condition is recorded on the record.

In summary, the following tables are considered to be part of the Policy Prototype:

- Policy_Prototype_Tab
- Beneficiary_Tab
- Beneficiary_Benefit_Cost_Tab
- Beneficiary_Spec_Cond_Tab

The actual Policy isn't normally created in LaHIPP until the Employee has enrolled in the ESI plan, and the LaHIPP Specialist is about to "Activate" the chosen Policy Prototype. A Policy is owned by a Case. A Case may have many Policies over time, but only one Policy may be active for a given Case at a point in time.

17.2 Financial Entities



Each record in the **Financial_Transaction_Tab** table is a LaHIPP Financial Transaction. Each Policy has a collection of Financial Transactions, which define the Policy’s financial history. Transactions with a positive Transaction_Amount are a credit to the policyholder, while Transactions with a negative Transaction_Amount are a debit to the policyholder.

Each record in the **Period_Tab** table defines a fixed period of time. Currently each Period is exactly one calendar month. The Period has a Start Date and an End Date, which are (currently) the first and last day of the calendar month the Period represents. There is always exactly one “Open” period.

The “Financial Transaction Type” code table (not shown) defines the different types of Financial Transactions. The users can create some types manually, while others can only be created by the system.

Every Financial Transaction identifies a **Period_Tab** record as its "Fiscal Period". The Fiscal Period of a transaction is the Period that is "Open" (accepting new transaction postings) at the time the transaction is created.

There is one type of Financial Transaction, the "Premium Payment" that identifies a "Payment Period" and a "Coverage Period" in addition to the usual "Fiscal Period".

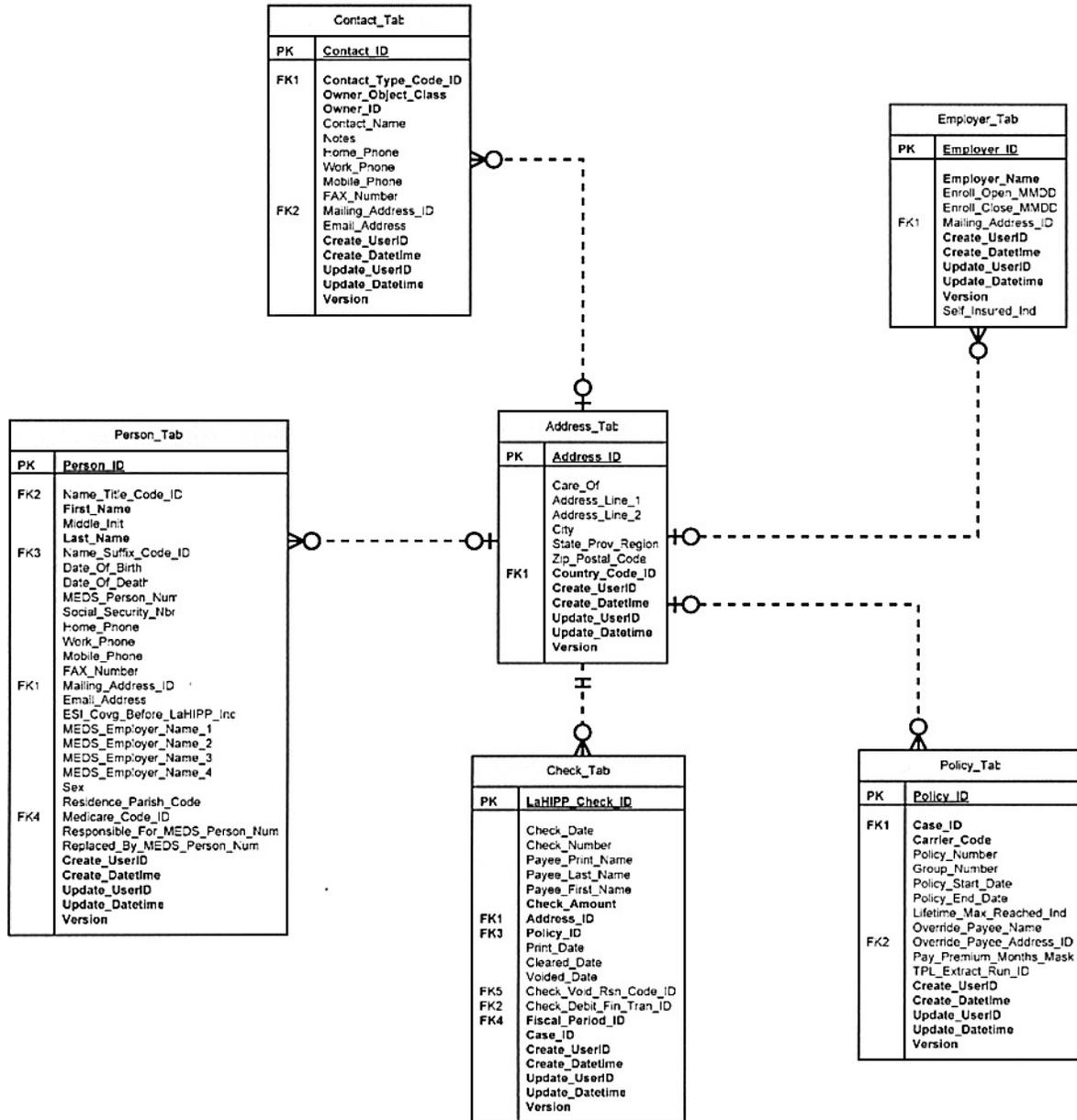
A Policy may have a collection of **Override_Premium_Tab** records. Each Override_Premium specifies the Premium Amount to be paid for the Policy in a certain Coverage Period. This overrides the amount that would be paid based on the information from the Plan. Override Premiums are normally created for Periods where the Policy provides coverage for only part of the Period.

At the end of each Fiscal Period, the LaHIPP system generates a check for each policyholder that is owed a non-trivial amount of money for the subsequent Period (the Premium Period). A Policy has a collection of **Check_Tab** records, each of which represents a single check that has been generated for the Policy. The Check_Amount attribute contains the amount of the check.

Whenever a check is generated in LaHIPP, a "Check Debit" Financial Transaction is generated at the same time for the negative of the amount of the check. The Check_Tab record is linked to the corresponding "Check Debit" transaction via its Check_Debit_Fin_Tran_ID column.

The **Address_Tab** record that is associated with the Check_Tab record contains the mailing address of the check payee. The Address record is created at the same time the Check itself is created. The check is NOT, for example, linked to the Address record that contains the mailing address of the Policyholder.

17.3 Addresses and Contacts



17.3.1 Addresses

Every Address in LaHIPP is stored as a separate record in the **Address_Tab** table. There are several different types of business objects in LaHIPP that have an address:

- Each Person has a mailing address.
- Each Employer has a mailing address.

- Each Policy may have an "Override Payee Mailing Address".
- Each Check has a Payee address linked to it as a permanent record of the Address to which the check was mailed.
- Each Contact has an address associated with it. More about contacts in moment.

A certain Address_Tab record in LaHIPP belongs to one and only one business object, which could be a Person, an Employer, a Policy, a Check, a Contact, etc. A particular Address_Tab record is never "shared" by more than one business object.

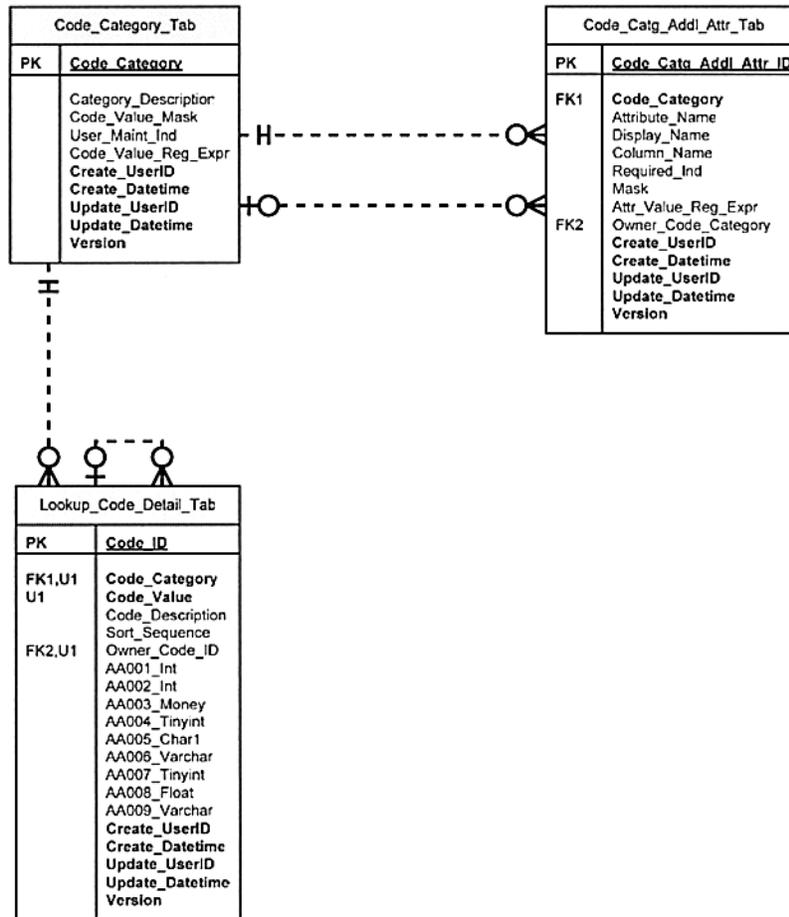
17.3.2 Contacts

The LaHIPP system allows the users to record contact information pertaining to different business objects. Contacts may be recorded for Persons, Carriers, Employers, Parishes, Cases, and other business objects. Each **Contact_Tab** record represents a contact.

Each contact has a "Contact Type". The list of valid "Contact Types" depends on the business object the contact is linked to. The "Contact Types" are defined in a LaHIPP code table called "Contact Type".

Contacts are not used by the system, they are only provided for the convenience of the users.

17.4 LaHIPP Reference Tables



LaHIPP specific "code tables" are defined using a structure which reduces development and maintenance costs, and yet provides flexibility to easily add new code tables or code table values, and to easily add a new attribute to an existing code tables by inserting a row in a control table.

Each row in the **Code_Category_Tab** table defines a logical "code table" or "Reference Table". The logical name of the code table is defined in the Category_Description column of the Code_Category table.

Each row in the **Lookup_Code_Detail_Tab** table is an entry, or a code value, in a logical code table. The Code_Category attribute of the Lookup_Code_Detail record identifies the logical "code table" that the record is part of. The Code_Value is the logical "code value" of the code entry, and the Code_Description is the "description" associated with the code value.

The **Code_Catg_Addl_Attr_Tab** table contains meta-data that defines the "additional attributes" of a code table. For example, besides a "code" and a "description", the "Case Status" table requires an additional attribute called "Reason Required", which is an indicator of whether the user must also specify a "Case Status Reason" when the Status of a Case is changed to the "Case Status".

The Column_Name column of the Code_Catg_Addl_Attr table specifies the physical column of the Lookup_Code_Detail table that is used to store the additional attribute. The other columns of the Code_Catg_Addl_Attr table contain meta-data that allows the "Code Maintenance" screen (page 157) to

display the additional attribute in the appropriate type of field, such as a drop-down, and to perform the appropriate validations when the actual Lookup_Code_Detail record is modified via the screen.

17.5 MARS and LaHIPP AAMC Tables

MARS Tables (Not in LaHIPP DB)

MARS_AAMC_Demogr_Grp_Tab	
	Sex Age Aid_Category Type_Case Parish Medicare_Code Qty_Eligible_Mths

MARS_AAMC_Claim_Stats_Tab	
	Sex Age Aid_Category Type_Case Parish Medicare_Code Service_Bracket_Code Total_Claim_Amt

LaHIPP Summary AAMC Tables

LaHIPP_AAMC_Demogr_Grp_Tab	
PK	LaHIPP_AAMC_Demogr_Grp_ID
	Sex Age_Group_Code Cat_TC_Group_Code Urban_Rural_Ind Medicare_Code Qty_Eligible_Mths Create_UserID Create_Datetime Update_UserID Update_Datetime Version

LaHIPP_AAMC_Claim_Stats_Tab	
PK	LaHIPP_AAMC_Claim_Stat_ID
	Sex Age_Group_Code Cat_TC_Group_Code Urban_Rural_Code Medicare_Code Service_Bracket_Code Total_Claim_Amt Create_UserID Create_Datetime Update_UserID Update_Datetime Version

The MARS and LaHIPP AAMC tables provide the Average Annual Medical Cost statistics that is the basis of part of the Cost-Effectiveness calculation that is at the heart of the LaHIPP system. A detailed description of the columns of these tables can be found in section "MARS → LaHIPP Interface of AAMC" (page 245).

17.6 Miscellaneous

Notice_tab	
	Notice_ID
	Notice_Status_Code_ID
	Notice_Type_Code_ID
	Case_ID
	Response_Due_Date
	Data
	System_Code
	Version
	Create_UserID
	Create_Datetime
	Update_UserID
	Update_Datetime

Comment_Tab	
PK	Comment_ID
	Comment_Text
	Owner_Object_Class
	Owner_ID
	Create_UserID
	Create_Datetime
	Update_UserID
	Update_Datetime
	Version

Batch_Request_Tab	
PK	Batch_Request_ID
	Batch_Name_Code_ID
	Run_ID
	Batch_Status_Code_ID
	Begin_Datetime
	End_Datetime
	Records_Processed
	Create_UserID
	Create_Datetime
	Update_UserID
	Update_Datetime
	Version

Each record in the **Notice_Tab** table represents a particular notice that has been generated in LaHIPP. The types of notices that can be generated are defined in the LaHIPP "Notice Type" code table.

Each record in the **Comment_Tab** table is a comment that has been linked to some business object in LaHIPP. Comments can be created for Cases, Persons, Carriers, Employers, Policies, and other business objects.

Each record in the **Batch_Request_Tab** table represents a particular run of a particular LaHIPP batch program. The record provides a history and audit trail of batch runs, and during the run, acts as a repository of restart/recovery information for the run.

17.7 Unisys Reference Tables

LOOKUP_Aid_Category_Tab	
PK	<u>Aid_Cat</u>
	Aid_Cat_Desc Aid_Cat_Summary

LOOKUP_Parish_Code_Tab	
PK	<u>Parish_Code</u>
	Parish_Desc Comm_Care_Region Urban_Rural_Code

LOOKUP_Type_Case_Tab	
PK	<u>Type_Case</u>
	Type_Case_Desc Entitlement_Code

LOOKUP_Eligible_Sex_Code_Tab	
PK	<u>Sex</u>
	Sex_Desc Valid_Code_Ind

LOOKUP_TPL_Carrier_Code_Tab	
PK	<u>Carrier_Code</u>
	Carrier_Name Carrier_Addr1 Carrier_City Carrier_State Carrier_Zip

LOOKUP_Scope_Coverage_Tab	
PK	<u>Scope_Cov</u>
	Scope_Cov_Desc

LOOKUP_State_Abbreviation_Tab	
PK	<u>State_Abbreviation</u>
	State_Name

LaHIPP makes use of reference tables that already exist in Unisys SQL Server databases:

Table	Description
LOOKUP_Aid_Category_Tab	MEDS Eligibility "Category" codes and their descriptions
LOOKUP_Parish_Code_Tab	Louisiana Parish Codes, Parish Names, and whether each is "Urban" or "Rural"
LOOKUP_Type_Case_Tab	MEDS Eligibility "Type Case" codes and their descriptions
LOOKUP_Eligible_Sex_Code_Tab	Defines valid Sex codes. Valid_Code_Ind = 1 indicates a valid code
LOOKUP_TPL_Carrier_Code_Tab	Contains the list of insurance carriers known to the State. A unique Carrier Code identifies each.
LOOKUP_Scope_Coverage_Tab	
LOOKUP_State_Abbreviation_Tab	Defines the list of valid U.S. State code and their names.