Data Warehouse (Reporting Layer)

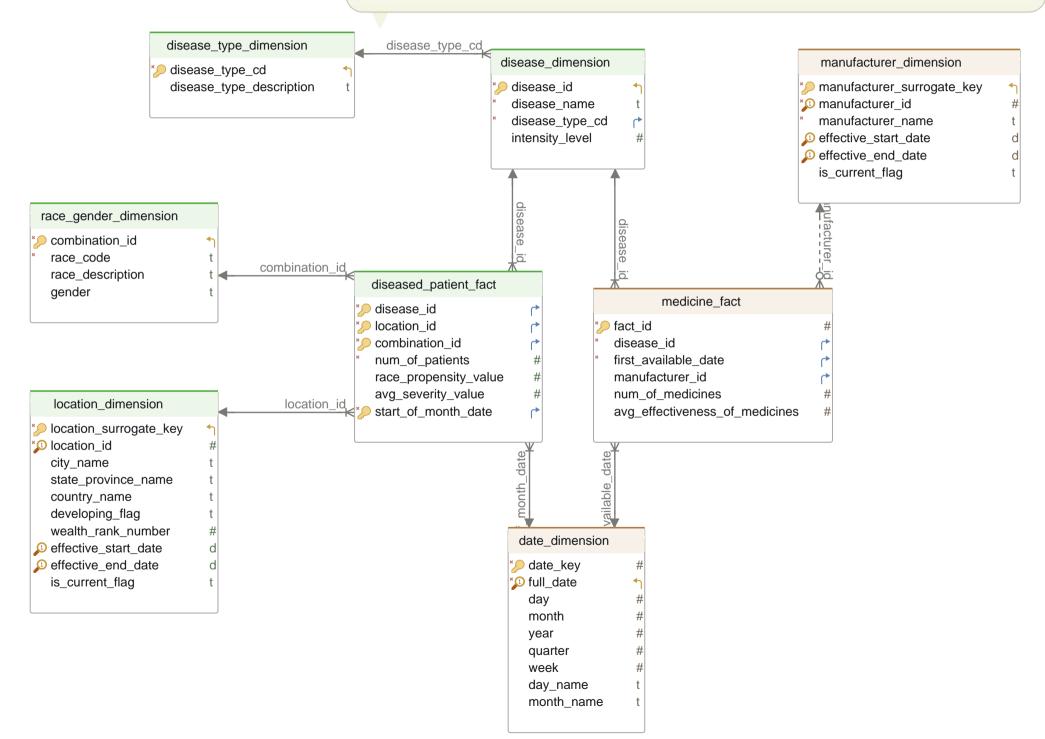
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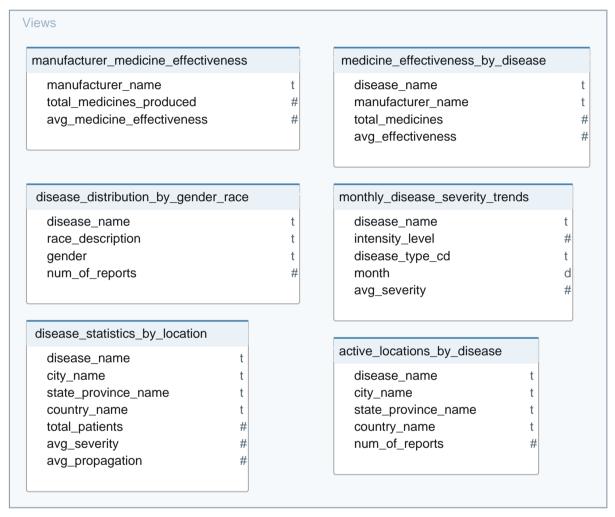
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Since all the definintion are given in the curated layer, here we have definitions for the tables and columns which are new or in a derived form from the curated layer





Main Layout

Table	Table date_dimension				
ldx	Name	Data Type	Description		
The tab	le will enable us to slice and dice the data with	various date attributes like quarter, w	reek etc. to aid the analysis.		
* Pk	date_key	integer	Unique key for the Date		
* Unq	full_date	date	The full date in yyyy-mm-dd format		
	day	integer	Day of the date		
	month	integer	Month of the date		
	year	integer	Year of the date		
	quarter	integer	Quarter of the date		
	week	integer	Week of the date		
	day_name	varchar(20)	Day name of the date		
	month_name	varchar(20)	Month name of the date		
Indexes	Indexes				
Type	Name	On	Description		
Pk	date_dimension_pkey	date_key			
Unq	date_dimension_full_date_key	full_date			

Table dis	Table disease_dimension			
ldx	Name	Data Type		
* Pk	disease_id	integer		
*	disease_name	varchar(100)		
*	disease_type_cd	varchar(5)		
	intensity_level	integer		
Indexes				
Type	Name	On		
Pk	disease_dimension_pkey	disease_id		
Foreign Keys				
Туре	Name	On		
	fk_disease_type (disease_type_cd) ref disease_type_dimension (disease_type_	cd)		
Constraints				
	Name	Definition		
	disease_dimension_intensity_level_check	((intensity_level >= 1) AND (intensity_level <= 10))		

Table disease_type_dimension		
ldx	Name	Data Type

Table dis	Table disease_type_dimension			
* Pk	disease_type_cd	varchar(5)		
	disease_type_description	varchar(100)		
Indexes				
Туре	Name	On		
Pk	disease_type_dimension_pkey	disease_type_cd		

Table	Table diseased_patient_fact					
ldx	Name	Data Type	Description			
* Pk	disease_id	integer				
* Pk	location_id	integer				
* Pk	combination_id	integer				
*	num_of_patients	integer	Count of number of patients			
	race_propensity_value	numeric(5,2)				
	avg_severity_value	numeric(5,2)	Avg Severity based based on all the patients under this particular bucket. (value will be between 1 an 10)			
* Pk	start_of_month_date	date	The date of the start of the month when the patient got the disease. (Aggregation)			
Indexes	S					
Type	Name	On	Description			
Pk	diseased_patient_fact_pkey	disease_id, location_id, combination_id, start_of_month_date				
Foreign	n Keys					
Туре	Name	On	Description			
	diseased_patient_fact_start_of_month_date_date_dimension (full_date)	_fkey (start_of_month_date) ref				
	diseased_patient_fact_combination_id_fkey race_gender_dimension (combination_id)	(combination_id) ref				
	diseased_patient_fact_disease_id_fkey (dis disease_id)	ease_id) ref disease_dimension (
	diseased_patient_fact_location_id_fkey (loc location_surrogate_key)	ation_id) ref location_dimension (

Table	Table location_dimension			
ldx	Name	Data Type	Description	
The tab	le has the SDC type 2 for the location IDs as the	ne names can change over time.		
* Pk	location_surrogate_key	integer DEFAULT nextval('reporting_layer_dw.location _dimension_location_surrogate_key _seq'::regclass)		
* Unq	location_id	integer		

Table I	ocation_dimension			
	city_name	varchar(100)		
	state_province_name	varchar(100)		
	country_name	varchar(100)		
	developing_flag	varchar(1)		
	wealth_rank_number	integer		
Unq	effective_start_date	date DEFAULT '1899-01-01'::date		
Unq	effective_end_date	date		
	is_current_flag	varchar(1)		
Indexes				
Type	Name	On	Description	
Pk	location_dimension_pkey	location_surrogate_key		
Unq	unique_location_id_effective_start_end_date	location_id, effective_start_date, effective_end_date		
Constrai	ints			
	Name	Definition	Description	
	location_dimension_developing_flag_check	((developing_flag)::text = ANY ((ARRAY['Y'::character varying, 'N'::character varying])::text[]))		
	location_dimension_wealth_rank_number_ch eck	((wealth_rank_number >= 1) AND (wealth_rank_number <= 10))		
	location_dimension_is_current_flag_check	((is_current_flag)::text = ANY ((ARRAY['Y'::character varying, 'N'::character varying])::text[]))		

Table	able manufacturer_dimension				
ldx	Name	Data Type	Description		
This dir	This dimension will capture the Pharmaceutical company information. Follows SDC type 2 to handle mergers and bankruptcy				
* Pk	manufacturer_surrogate_key	integer DEFAULT nextval('reporting_layer_dw.manufa cturer_dimension_manufacturer_su rrogate_key_seq'::regclass)			
* Unq	manufacturer_id	integer			
*	manufacturer_name	varchar(150)			
Unq	effective_start_date	date DEFAULT '1899-01-01'::date			
Unq	effective_end_date	date			
	is_current_flag	varchar(1)			
Indexes	3				
Туре	Name	On	Description		
Pk	manufacturer_dimension_pkey	manufacturer_surrogate_key			

Table	Table manufacturer_dimension			
Unq	unique_manufacturer_id_effective_start_end _date	manufacturer_id, effective_start_date, effective_end_date		
Constra	Constraints			
	Name	Definition	Description	
	manufacturer_dimension_is_current_flag_ch eck	((is_current_flag)::text = ANY ((ARRAY['Y'::character varying, 'N'::character varying])::text[]))		

Table	medicine_fact		
ldx	Name	Data Type	Description
* Pk	fact_id	integer DEFAULT nextval('reporting_layer_dw.medicin e_fact_fact_id_seq'::regclass)	
*	disease_id	integer	
*	first_available_date	date	
	manufacturer_id	integer	
	num_of_medicines	integer	Number of Medicines manufactured by the Manufacturer for a given disease
	avg_effectiveness_of_medicines	numeric(5,2)	Average effectiveness of all the medicines of a particular manufacturer for a disease
Indexes	3		
Туре	Name	On	Description
Pk	medicine_fact_pkey	fact_id	
Foreign	Keys		
Туре	Name	On	Description
	medicine_fact_first_available_date_fkey (first (full_date)	st_available_date) ref date_dimension	
	medicine_fact_manufacturer_id_fkey (manu manufacturer_dimension (manufacturer_sur	facturer_id) ref rogate_key)	
	<pre>medicine_fact_disease_id_fkey (disease_id)</pre>) ref disease_dimension (disease_id	

Table rac	Table race_gender_dimension			
ldx	Name	Data Type		
* Pk	combination_id	integer		
*	race_code	varchar(5)		
	race_description	varchar(100)		
	gender	varchar(1)		
Indexes				
Туре	Name	On		
Pk	race_gender_dimension_pkey	combination_id		

Table race_gender_dimension

Constraints

Name	Definition
race_gender_dimension_gender_check	((gender)::text = ANY ((ARRAY['M'::character varying, 'F'::character varying, 'O'::character varying, 'U'::character varying])::text[]))

View active_locations_by_disease

View disease_distribution_by_gender_race

CREATE OR REPLACE VIEW \${view} AS SELECT dd.disease_name, rgd.race_description, rgd.gender, count(dpf.combination_id) AS num_of_reports FROM ((reporting_layer_dw.diseased_patient_fact dpf JOIN reporting_layer_dw.disease_dimension dd ON ((dpf.disease_id = dd.disease_id))) JOIN reporting_layer_dw.race_gender_dimension rgd ON ((dpf.combination_id = rgd.combination_id))) GROUP BY dd.disease_name, rgd.race_description, rgd.gender ORDER BY dd.disease_name, (count(dpf.combination_id)) DESC

View disease_statistics_by_location

View manufacturer_medicine_effectiveness

View medicine_effectiveness_by_disease

View monthly_disease_severity_trends