

## HEDIS Flu Shot Abstraction Demo by Marla Morales LPN

**As an LPN, I built this SQL project to track flu shot compliance, showcasing HEDIS abstraction skills**

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-- HEDIS Flu Shot Abstraction Demo by Marla Morales LPN
-- Purpose: As an LPN, I built this SQL project to track flu shot compliance across
clinics,
-- identifying care gaps for HEDIS quality reporting.
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```
-- Step 1: Create patient table for HEDIS data
```

```
CREATE TABLE patients (
  id INT,
  name VARCHAR(50),
  age INT,
  clinic VARCHAR(50),
  flu_shot_date VARCHAR(10) -- 'YYYY-MM-DD' or NULL if no shot
);
```

```
-- Step 2: Insert mock patient data with realistic nursing scenarios
```

```
INSERT INTO patients (id, name, age, clinic, flu_shot_date)
```

```
VALUES
```

```
(1, 'John Doe', 45, 'Downtown', '2024-10-15'),
(2, 'Jane Smith', 72, 'Eastside', NULL),
(3, 'Mary Johnson', 30, 'Downtown', '2024-11-01'),
(4, 'Tom Brown', 65, 'Westside', NULL),
(5, 'Lisa White', 28, 'Eastside', '2024-09-20'),
(6, 'Juan Garcia', 22, 'Midtown', '2024-09-10'),
(7, 'Jesse James', 78, 'Eastside', NULL),
(8, 'Shirley Jones', 80, 'Middletown', '2024-11-27'),
(9, 'Jeff Fritz', 5, 'Downtown', '2023-08-23'),
(10, 'Lisa Burns', 17, 'Hillcountry', NULL),
(11, 'Teri Weaver', 40, 'Eastside', '2024-10-22');
```

```
-- Step 3: HEDIS Queries for Quality Measures
```

```
-- Query 1: Patients 65+ without flu shots (senior compliance)
```

```
SELECT name, age, clinic
```

```
FROM patients
```

```
WHERE age >= 65 AND flu_shot_date IS NULL
```

```
ORDER BY age DESC;
```

```
-- Output: Jesse James (78, Eastside), Jane Smith (72, Eastside), Tom Brown (65,
Westside)
```

```
-- Query 2: Clinics with most missing flu shots (gap analysis)
```

```
SELECT clinic, COUNT(*) AS no_shot_count
```

```
FROM patients
```

```
WHERE flu_shot_date IS NULL
```

GROUP BY clinic

ORDER BY no\_shot\_count DESC;

-- Output: Eastside (2), Westside (1), Hillcountry (1)

-- Query 3: Patients under 40 with flu shots (youth compliance)

SELECT TOP 3 name, age, clinic

FROM patients

WHERE age < 40 AND flu\_shot\_date IS NOT NULL

ORDER BY age ASC;

-- Output: Juan Garcia (22, Midtown), Lisa White (28, Eastside), Mary Johnson (30, Downtown)

-- Query 4: Patients with outdated or missing shots (compliance gaps)

SELECT TOP 2 name, age, clinic

FROM patients

WHERE flu\_shot\_date < '2024-01-01' OR flu\_shot\_date IS NULL

ORDER BY age ASC;

-- Output: Jeff Fritz (5, Downtown), Tom Brown (65, Westside)

-- Query 5: Recent flu shots (current season compliance, Sept 2024 onward)

SELECT TOP 3 name, age, clinic

FROM patients

WHERE flu\_shot\_date IS NOT NULL AND flu\_shot\_date >= '2024-09-01'

ORDER BY flu\_shot\_date ASC;

-- Output: Juan Garcia (22, Midtown), Lisa White (28, Eastside), John Doe (45, Downtown)