

Team ID- PTID-CDA-MAR-23-131

MEDICAL DATA HISTORY

Submitted by- Aaspruha Dash
Akash Narendra Wahane
Ayush Munjewar
Chinmay Bonde

PROJECT DESCRIPTION

This project aids in comprehending the varied health concerns of patients across different cities and age groups. Through this data, medical professionals can discern the medical ailments affecting citizens based on age and gender, whilst also obtaining comprehensive records alongside other pertinent information.

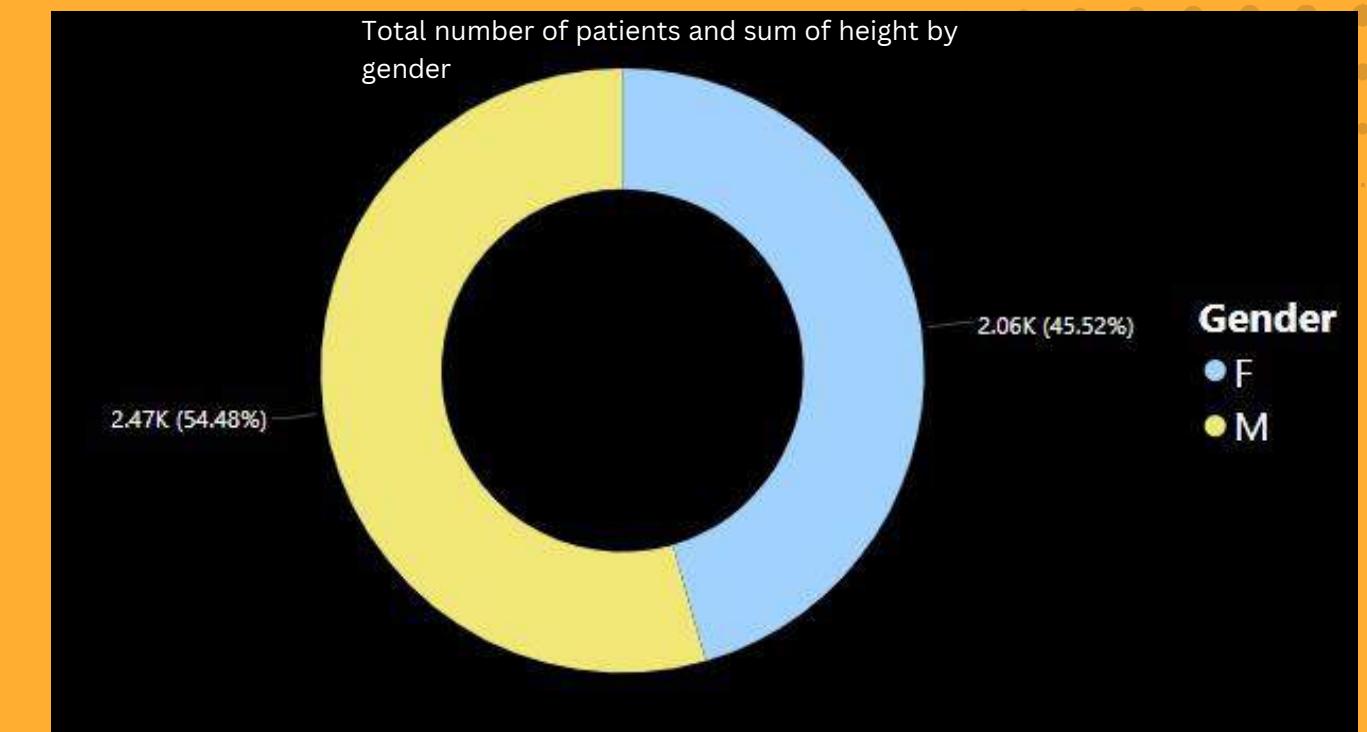


Medical Data History

APPROACH

For this project, we have used SQL to derive data from the database and sorted the data using the same tool.

We have also used Canva to prepare the PowerPoint presentation .



| d | first_name | last_name | gender | birth_date | city | province_id |
|---|------------|------------|--------|------------|-----------------|-------------|
| | Donald | Waterfield | M | 1963-02-12 | Barrie | ON |
| | Mickey | Baasha | M | 1981-05-28 | Dundas | ON |
| | Jiji | Sharma | M | 1957-09-05 | Hamilton | ON |
| | Blair | Diaz | M | 1967-01-07 | Hamilton | ON |
| | Charles | Wolfe | M | 2017-11-19 | Orillia | ON |
| | Sue | Falcon | F | 2017-09-30 | Ajax | ON |
| | Thomas | ONeill | M | 1993-01-31 | Burlington | ON |
| | Sonny | Beckett | M | 1952-12-11 | Port Hawkesbury | NS |

INSIGHTS

1

Patients name and DOB whose gender is Male

| patient_id | first_name | last_name | gender | birth_date | city | province_id | allergies | height | weight |
|------------|------------|-------------|--------|------------|------------|-------------|---------------------|--------|--------|
| 2197 | Andy | Wainthrop | M | 2010-05-23 | Ancaster | ON | Penicillin | 128 | 47 |
| 4307 | Jack | White | M | 2010-12-02 | Ancaster | ON | Penicillin | 131 | 42 |
| 3089 | Bill | Dax | M | 2010-08-31 | Barrie | ON | Sulfa | 130 | 43 |
| 171 | Jack | Stewart | M | 2010-10-10 | Brantford | ON | Topical Anaesthesia | 101 | 35 |
| 302 | Paul | Vondopoulos | M | 2010-05-22 | Brantford | ON | NULL | 107 | 36 |
| 818 | Evan | Cortez | M | 2010-12-24 | Burlington | ON | NULL | 108 | 35 |

2

Patients with no allergies

| | first_name | last_name |
|---|------------|------------|
| ▶ | Donald | Waterfield |
| | Blair | Diaz |
| | Thomas | ONeill |
| | Sonny | Beckett |
| | Cedric | Coltrane |
| | Hank | Spencer |

3 Patients first name starting with 'C'

| first_name |
|------------|
| Charles |
| Cedric |
| Charles |
| Cross |
| Calleigh |
| Catherine |

4 First and last name of patients having weight between 100 and 120

| first_name | last_name |
|------------|-----------|
| Jiji | Sharma |
| Blair | Diaz |
| Thomas | ONeill |
| Sonny | Beckett |
| Tom | Halliwell |
| Jon | Doggett |

5 Replace 'Null' allergies with 'NKA'

| patient_id | first_name | last_name | gender | birth_date | city | province | allergies | height | weight |
|------------|------------|------------|--------|------------|--------------|----------|-----------|--------|--------|
| 1 | Donald | Waterfield | M | 12-02-1963 | Barrie | ON | NKA | 156 | 65 |
| 4 | Blair | Diaz | M | 07-01-1967 | Hamilton | ON | NKA | 191 | 104 |
| 7 | Thomas | ONeill | M | 31-01-1993 | Burlington | ON | NKA | 180 | 117 |
| 8 | Sonny | Beckett | M | 11-12-1952 | Port Hawke | NS | NKA | 174 | 105 |
| 10 | Cedric | Coltrane | M | 10-11-1961 | Toronto | ON | NKA | 157 | 61 |
| 11 | Hank | Spencer | M | 10-08-1969 | Peterborough | ON | NKA | 158 | 74 |
| 12 | Sara | di Marco | F | 29-04-1949 | Hamilton | ON | NKA | 145 | 46 |
| 15 | Amy | Leela | F | 25-06-1977 | Hamilton | ON | NKA | 172 | 72 |
| 18 | Rachel | Winterbo | F | 26-04-1966 | Hamilton | ON | NKA | 163 | 95 |
| 19 | John | West | M | 19-06-1961 | Oakville | ON | NKA | 138 | 61 |
| 20 | Jon | Doggett | M | 25-12-1951 | Hamilton | ON | NKA | 194 | 116 |
| 21 | Angel | Edwards | F | 22-08-1975 | Brantford | ON | NKA | 176 | 106 |
| 22 | Brodie | Beck | F | 01-08-1975 | Carlisle | ON | NKA | 157 | 66 |
| 26 | Nea | Kobayaka | F | 18-10-1995 | Toronto | ON | NKA | 147 | 62 |
| 27 | Laura | Halliwell | F | 26-11-1964 | Brantford | ON | NKA | 146 | 76 |
| 28 | Lucille | Maureen | F | 22-08-1953 | Hamilton | ON | NKA | 184 | 87 |
| 30 | Roderick | Payne | M | 22-03-2015 | Halifax | NS | NKA | 58 | 17 |
| 32 | Bertha | Crowley | F | 14-03-2009 | Delhi | ON | NKA | 125 | 39 |
| 34 | Don | Wiggum | M | 15-11-2002 | Hamilton | ON | NKA | 189 | 91 |
| 35 | Anthony | Maxwell | M | 11-02-2011 | Oakville | ON | NKA | 92 | 37 |

6 Patients first and last name concatenated into one

| full_name |
|-------------------|
| Donald Waterfield |
| Mickey Baasha |
| Jiji Sharma |
| Blair Diaz |
| Charles Wolfe |

7 First name, last name, and province of each patient.

| first_name | last_name | province_name |
|------------|------------|---------------|
| Donald | Waterfield | Ontario |
| Mickey | Baasha | Ontario |
| Jiji | Sharma | Ontario |
| Blair | Diaz | Ontario |
| Charles | Wolfe | Ontario |
| Sue | Falcon | Ontario |

8 Patients having 2010 as birth year.

| patient_id | first_name | last_name | gender | birth_date | city | province_id | allergies | height | weight |
|------------|------------|-------------|--------|------------|--------------|-------------|---------------------|--------|--------|
| 38 | Kelly | Hamilton | F | 2010-09-29 | Stoney Creek | ON | Penicillin | 84 | 36 |
| 43 | Stone | Cutting | M | 2010-09-24 | Hamilton | ON | Codeine | 110 | 42 |
| 171 | Jack | Stewart | M | 2010-10-10 | Brantford | ON | Topical Anaesthesia | 101 | 35 |
| 178 | David | Bustamonte | M | 2010-02-24 | Carisle | ON | Peanuts | 103 | 37 |
| 302 | Paul | Vondopoulos | M | 2010-05-22 | Brantford | ON | shellfish | 107 | 36 |
| 735 | Carl | Drake | M | 2010-04-20 | Stoney Creek | ON | Sulfa | 120 | 41 |

9 Patient's name with maximum height.

| first_name | last_name | height |
|------------|-----------|--------|
| Sam | Haruko | 226 |

10 Find patients with patient_ids: 1,45,534,879,1000.

| patient_id | first_name | last_name | gender | birth_date | city | province_id | allergies | height | weight |
|------------|------------|------------|--------|------------|----------|-------------|------------|--------|--------|
| 1 | Donald | Waterfield | M | 1963-02-12 | Barrie | ON | shellfish | 156 | 65 |
| 45 | Cross | Gordon | M | 2009-03-20 | Ancaster | ON | shellfish | 125 | 53 |
| 534 | Don | Zatara | M | 2008-01-11 | Timmins | ON | shellfish | 136 | 67 |
| 879 | Orla | Shawn | F | 1967-09-24 | Sarnia | ON | Penicillin | 149 | 65 |
| 1000 | Rick | Williams | M | 1975-04-13 | Hamilton | ON | Penicillin | 176 | 127 |
| 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |

11

Show the total number
of admissions

| | total_no_of_patients |
|---|----------------------|
| ▶ | 5067 |

12

Patients admission where
admission date is same as
discharge date

| patient_id | admission_date | discharge_date | diagnosis | attending_doctor_id |
|------------|----------------|----------------|--|---------------------|
| 1 | 2018-09-20 | 2018-09-20 | Ineffective Breathing Pattern R/T Fluid Accumulation | 24 |
| 9 | 2018-12-31 | 2018-12-31 | Ruptured Appendix | 19 |
| 10 | 2019-02-27 | 2019-02-27 | Lower Quadrant Pain | 27 |
| 17 | 2019-03-04 | 2019-03-04 | Diabetes Mellitus | 9 |
| 28 | 2019-03-30 | 2019-03-30 | Cancer Of The Stomach | 26 |
| 31 | 2018-09-26 | 2018-09-26 | Cardiovascular Disease | 19 |
| 53 | 2018-10-24 | 2018-10-24 | Urinary Tract Infection | 8 |

13

Admissions having
patient_id 579

| patient_id | admission_date | discharge_date | diagnosis | attending_doctor_id |
|------------|----------------|----------------|----------------------|---------------------|
| 579 | 2018-08-19 | 2018-08-27 | Syncope NYD | 19 |
| 579 | 2018-12-06 | 2018-12-12 | Osteo Arthritis Knee | 19 |

14

Unique cities with province_id 'NS'

| city | province_id |
|-----------------|-------------|
| Port Hawkesbury | NS |
| Halifax | NS |
| Inverness | NS |

15

Find patient name and birthdate who so weight > 70 and height > 160

| first_name | last_name | birth_date |
|------------|-----------|------------|
| Mickey | Basha | 1981-05-28 |
| Jy | Sharma | 1957-09-05 |
| Blair | Diaz | 1967-01-07 |
| Thomas | O'Neill | 1993-01-31 |
| Sonny | Gednett | 1952-12-11 |
| Sister | Spitzer | 1966-10-15 |
| Rick | Bennett | 1977-01-27 |

| year(birth_date) |
|------------------|
| 1918 |
| 1923 |
| 1925 |
| 1926 |
| 1927 |
| 1928 |
| 1929 |

16

Patients birth year in ascending order

| first_name |
|------------|
| Abby |
| Adelaide |
| Adelia |
| Akira |
| Albert |
| Aldo |
| Alec |

17

Patients first name which occurs only once

| patient_id | first_name |
|------------|------------|
| 496 | Spiros |
| 629 | Spiros |
| 1789 | Seamus |
| 2258 | Spiros |
| NONE | NONE |

18

Patients ID and name whose name starts and ends with 'S'

19

Patients ID, first name, and last name having dementia.

| patient_id | first_name | last_name | diagnosis |
|------------|------------|------------|-----------|
| 160 | Miranda | Delacour | Dementia |
| 178 | David | Bustamonte | Dementia |
| 207 | Matt | Celine | Dementia |
| 613 | Jaki | Granger | Dementia |
| 836 | Montana | Vimes | Dementia |
| 924 | Simon | Soellman | Dementia |

20

Patients name ordered by length and then alphabetically

| first_name |
|------------|
| Al |
| Bo |
| Cy |
| Ed |
| Jo |
| Ri |
| Te |
| Abe |

21-22

Total number of male and female patients

| Total_male | Total_female |
|------------|--------------|
| 2468 | 2062 |

23 Show the patient ID and diagnosis of the patients who made multiple diagnoses.

| patient_id | diagnosis |
|------------|-----------------------------------|
| 137 | Pregnancy |
| 320 | Pneumonia |
| 1577 | Congestive Heart Failure |
| 2004 | Left Shoulder Rotator Cuff Repair |
| 2859 | Severed Spine At C3 |
| 3012 | Appendicitis |

24 Total number of patients in descending order and their cities in ascending order.

| | city | no_patients |
|---|--------------|-------------|
| ▶ | Hamilton | 1938 |
| | Toronto | 317 |
| | Burlington | 276 |
| | Brantford | 147 |
| | Ancaster | 117 |
| | Stoney Creek | 107 |

25 Name and role of persons who are either patients or doctors

| first_name | last_name | role |
|------------|------------|---------|
| Donald | Waterfield | Patient |
| Mickey | Baasha | Patient |
| Jiji | Sharma | Patient |
| Blair | Diaz | Patient |
| Charles | Wolfe | Patient |
| Sue | Falcon | Patient |
| Thomas | O'Neill | Patient |
| Connie | Barkatt | Patient |

26 Show all allergies ordered by popularity

| allergies | patients |
|-------------|----------|
| Penicillin | 1082 |
| Codeine | 305 |
| Sulfa | 157 |
| ASA | 99 |
| Sulfa Drugs | 71 |
| Peanuts | 52 |
| Iodine | 48 |

27 First name, last name, and birth_date of patients born in 1970s.

| first_name | last_name | birth_date |
|------------|------------|------------|
| Frances | Kobayakawa | 1970-01-02 |
| Sunny | Burrell | 1970-01-07 |
| Penelope | Beckett | 1970-01-14 |
| Deborah | Stewart | 1970-01-14 |
| Augusta | Decker | 1970-01-22 |
| Sookie | Bearly | 1970-02-01 |
| Temple | Wylie | 1970-02-10 |

28 Patients full name separated by ','.

| full_name |
|----------------------|
| MILLER ,zoe |
| CORBIE ,ziva |
| KOBAYAKAWA ,zenigata |
| OVERSTREET ,zenigata |
| BENNETT ,zen |
| MEPHESTO ,zelda |
| MORRIS ,zelda |

29 Patients Province_id, sum of height where sum of height is greater than 7000.

| province_id | sum_height |
|-------------|------------|
| BC | 7720 |
| NS | 9765 |
| ON | 678037 |

30 Difference between the max and min weight of patients with last name 'Maroni'

| all_weight |
|------------|
| 71 |

31 Number of admissions and admission dates sorted from most to least.

| number_of_admission | date |
|---------------------|------|
| 184 | 11 |
| 184 | 4 |
| 183 | 9 |
| 180 | 2 |
| 179 | 12 |
| 179 | 6 |
| 177 | 16 |

32 Patients grouped into different weight groups in descending order.

| patients_in_group | weight_group |
|-------------------|--------------|
| 6 | 140 |
| 59 | 130 |
| 191 | 120 |
| 426 | 110 |
| 507 | 100 |
| 403 | 90 |
| 478 | 80 |

33 Show Patient_ID, height, weight, isObese.

| patient_id | weight | height | isObese |
|------------|--------|--------|---------|
| 1 | 65 | 156 | 0 |
| 2 | 76 | 185 | 0 |
| 3 | 106 | 194 | 0 |
| 4 | 104 | 191 | 0 |
| 5 | 10 | 47 | 1 |
| 6 | 5 | 43 | 0 |
| 7 | 117 | 180 | 1 |

34

ID, first name, last name of patients having epilepsy and doctor named LISA and the speciality

| | patient_id | first_name | last_name | specialty | first_name |
|---|------------|------------|-----------|---------------------------|------------|
| ▶ | 468 | Frank | Anderson | Obstetrician/Gynecologist | Lisa |
| | 701 | Precious | Ashton | Obstetrician/Gynecologist | Lisa |

35

Display Patient_ID and temporary password based on their ID, last name length and birth year

| Temporry_password |
|-------------------|
| 1101963 |
| 261981 |
| 361957 |
| 441967 |
| 552017 |
| 662017 |
| 761993 |

RESULTS

In this project, we extracted the required data from the entire database. We sorted the data and displayed it in a proper order.

This project helped us to understand the extraction and analysis of data and to make best decisions out of it.



THANK YOU

MEDICAL DATA HISTORY
BY
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