



# Patient Support Analysis [p2] (UnitedHealth)

## QUESTION

UnitedHealth Group has a program called Advocate4Me, which allows members to call an advocate and receive support for their health care needs – whether that's behavioural, clinical, well-being, health care financing, benefits, claims or pharmacy help.

Calls to the Advocate4Me call centre are categorised, but sometimes they can't fit neatly into a category. These uncategorised calls are labelled “n/a”, or are just empty (when a support agent enters nothing into the category field).

Write a query to find the percentage of calls that cannot be categorised. Round your answer to 1 decimal place.

### callers Table:

Column Name	Type
policy_holder_id	integer
case_id	varchar
call_category	varchar
call_received	timestamp
call_duration_secs	integer
original_order	integer

### callers Example Input:

policy_holder_id	case_id	call_category	call_received	call_duration_secs	original_order
52481621	a94c-2213-4ba5-812d		01/17/2022 19:37:00	286	161
51435044	f0b5-0eb0-4c49-b21e	n/a	01/18/2022 2:46:00	208	225
52082925	289b-d7e8-4527-bdf5	benefits	01/18/2022 3:01:00	291	352
54624612	62c2-d9a3-44d2-9065	IT_support	01/19/2022 0:27:00	273	358
54624612	9f57-164b-4a36-934e	claims	01/19/2022 6:33:00	157	362

## Step 1: Identify the problem of the case

Create a query to determine the proportion of calls that cannot be categorised. Calls to the Advocate4Me contact center are classified, however they may not always fall neatly into a category. These unclassified calls are branded "not applicable" or simply blank (when the support agent leaves the category field blank). Round your answer to the nearest decimal point. The final output will follow below form:

Column Name	Type
call_percentage	demical

## Step 2 : Analyze and solve problems

We count the number of records that have no value 'n/a' or no value corresponding to counting the number of records that are not classified. we use `COUNT()` function has a condition with `FILTER`. Also count the total number of calls (records).

```
SELECT COUNT(case_id)
      FILTER (WHERE call_category = 'n/a' or call_category IS NULL) uncategorized
      , COUNT(case_id) total
FROM callers
```

Then calculate the rate and round to 1 decimal place.

```
SELECT ROUND(100.0*uncategorized/total,1) uncategorized_call_pct
FROM (
  SELECT COUNT(case_id)
  FILTER (WHERE call_category = 'n/a' or call_category IS NULL) uncategorized
  , COUNT(case_id) total
  FROM callers) sub
```

## Output

uncategorized\_call\_pct

45.00