CONFIRE ECNS Analysis

August 2024

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CONFIRE Dispatch Processing of EMS Calls and Disposition of ECNS Eligible Calls

August 2024

The following is an analysis of various ECNS call processing components and disposition of callers participating in the ECNS process. The analysis looks at various components in the call processing continuum including determination of ECNS eligibility, proper transfer and capture in the LowCode ECNS processing software, and final disposition of pre-hospital care. Data for this analysis was extracted from CONFIREs CAD SQL database, the LowCode database, and ImageTrend medical records.

Table 1: EMS 911 calls for service and EMD completion for August 2024

Total Emergency EMS Calls Processed	18,363
Total EMS Calls with Obtainable Determinant Code	14,508
Total EMS Calls (EMD Obtainable) with Determinant Code	11,971
% of EMS Calls with Determinant Code	82.5%

Table 2:ECNS eligible calls and status of transfers to Emergency Communication Nurse (ECN) for August 2024.

Total Calls Eligible for ECNS:	1,467
% of EMS calls with Determinant Code Eligible for ECNS	12%
Total ECNS Eligible Calls Transferred to ECN (Entered in Low Code)	685
% of Eligible EMS Calls Transferred to ECNS	43.6%
% of Total EMS Calls Transferred to ECN6	3.7%

Table 3:Transport/treatment status of ECNS calls August 2024.

Incoming Calls to Emergency Communications Nurse (ECN) Nurse		
	Total ECNS Transfers	685
	Transferred via CAD Service (did not connect with ECN)	20
	Calls Aborted (Hangups, disconnects)	101
	Total Calls received and completed by ECN	564
Status in ECN Call Center		
	ECN returned call for Emergency Transport	161
	Patient had no alternative means of transport (Returned for non-emergency transport)	290
Ambulance Transport Status		
	Total calls to reach ECN that resulted in an ambulance response	439
	% of total calls to reach ECN that resulted in ambulance response	77.8%
	Total ambulance responses that resulted in a transport	238
	% of response with transport	54%
	Number of ECNS who received ECN direction and did not transport by ambulance.	113

[1] A CAD Service transfer occurs when CAD recognizes that the call is eligible for ECNS and automatically (and often without dispatcher knowledge) moves the call to LowCode electronically, but the dispatcher is not actually moving the call forward via telephone line to live ECN. There may be a number of reasons why this occurs, but for tracking purposes, it is not counted as an actual ECNS transfer. The call is actually being handled like a standard dispatched call with no time delays.

Table 4:Unit responses and ambulance transport rates to ECNS calls that were returned for first responders for August 2024 (by call type). Top 25 Call Types.

Call Type	Total Calls in LowCode	Total LowCode calls referred back for a Response	Total Responses with Transport	Call Type as % of Total Transports
SICK-A8	77	70	54	14%
SICK-O1	38	32	19	5%
BACK-A1	45	42	37	10%
SICK-A2	28	22	14	4%
ABD-A1	20	17	15	4%
SICK-A3	43	37	28	8%
SICK-A11	26	20	18	5%
TRAUMA-A3	25	24	18	5%
TRAUMA-A3	25	24	18	5%
SICK-A4	19	18	14	4%
FALL-A3	26	24	23	6%
FALL-A2	24	22	18	5%
SOB - Shortness of Breath	12	12	10	3%
DIA-O1	15	11	8	2%
CHOKE-O1	14	6	3	1%
PS - Public Service	15	15	4	1%
CP - Chest Pains	11	11	11	3%
TRAUMA-A2	19	13	9	2%
TRAUMA-A2	19	13	9	2%
DIA-A1	6	6	4	1%
UNC - Unconscious Person	11	11	10	3%
UNC - Unconscious Person	11	11	10	3%
FALL-O1	13	12	8	2%
HEAD-O1	8	5	2	1%
SICK-A6	6	6	5	1%

Table 5: Recommended Point of Care Disposition for patients completing ECNS process for August 2024*.

Point of Care Selected by ECN	# of patients	% of all care recommendations given
Seek Emergency Care as Soon as Possible	223	42.5%
Seek Face to Face Care within 1-4 Hours	102	19.4%
Emergency Response	160	30.5%
Schedule an Appointment to be Seen by a Doctor/Health Care Professional within the Next 12 Hours (same day)	14	2.7%
Schedule an Appointment to be Seen by a Doctor/Health Care Professional within the Next 1-3 Days	8	1.5%
Schedule a Routine Appointment with a Doctor/Health Care Professional	7	1.3%
Speak to Your Doctor/Health Care Professional to Review the Symptoms As Soon As Possible	5	1.0%
Self-Care	5	1.0%
Contact Poison Control or Local Pharmacist	1	0.2%

*This represents recommended care given by the ECN. The ECNS program does not have a mechanism to follow up on whether callers follow through with the recommendations. Also, the numbers in this table includes callers who were provided a recommendation that did not require ambulance transport, but received that transport anyway due to lack of alternative transportation (see table 3 for detail).

Figure 1: Percentage of ECNS eligible Calls that are transferred to ECN and entered into Low Code system by date.

Percent Transfer Rate of ECNS Eligible Calls
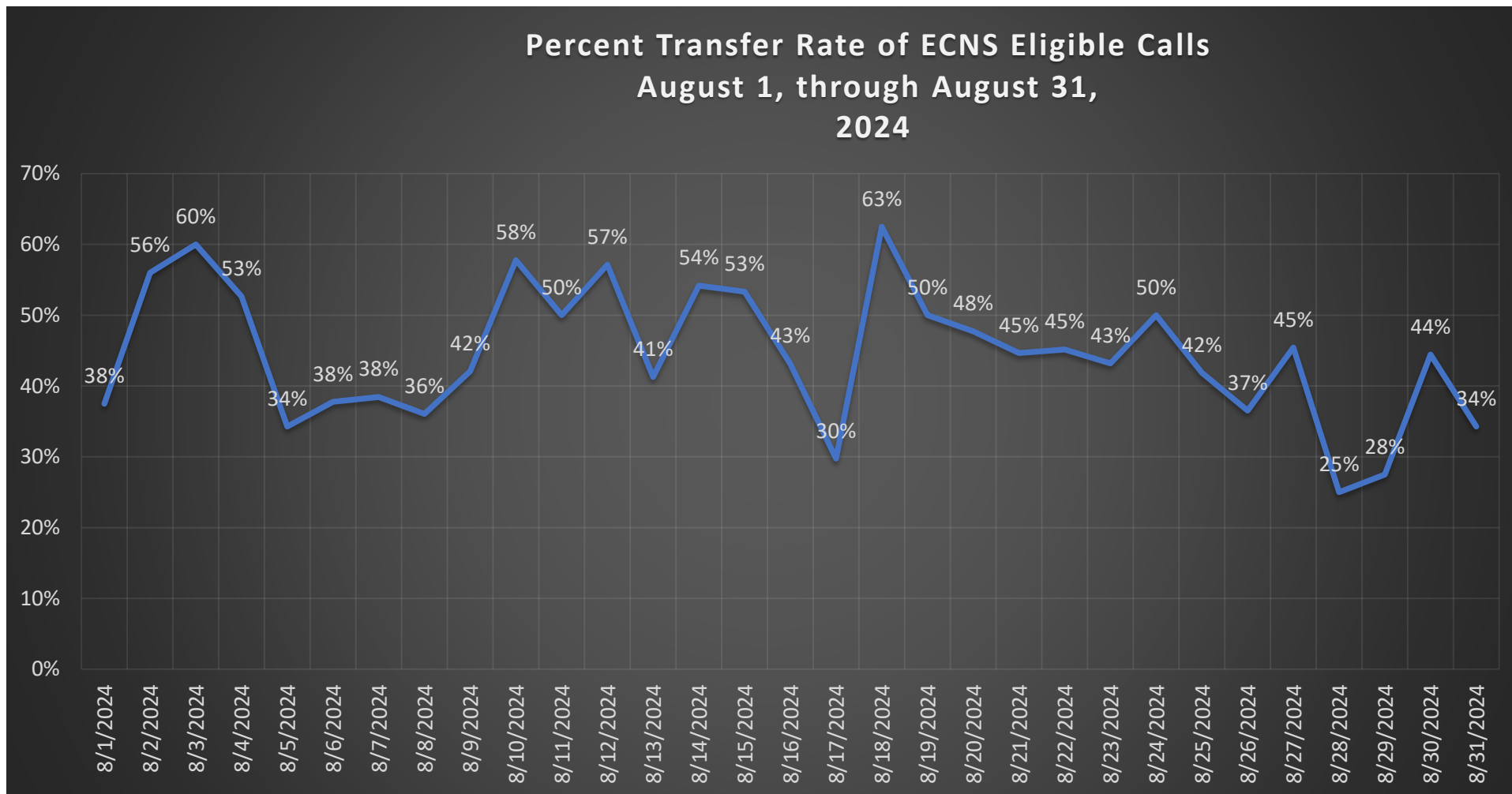**August 1, through August 31,**
2024

Figure 2:Total number of ECNS eligible calls and the number of them that were transferred to an ECN/entered into Low Code by date.

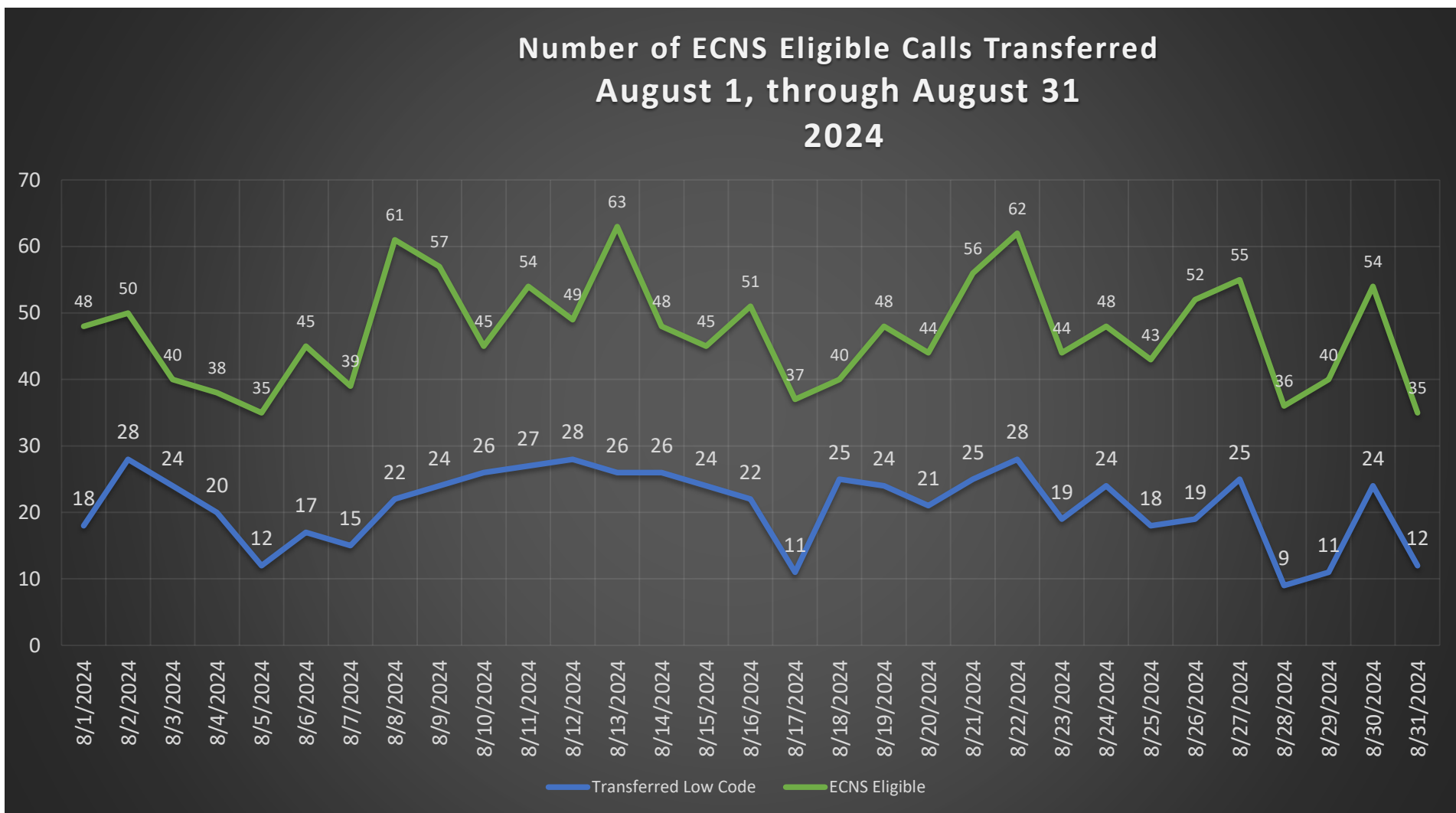Figure 3: 12-month analysis of ECNS eligible calls and rates of transfer to ECN/Low Code system.

12 Month ECNS Transfer Rates September 2023 through August 2024

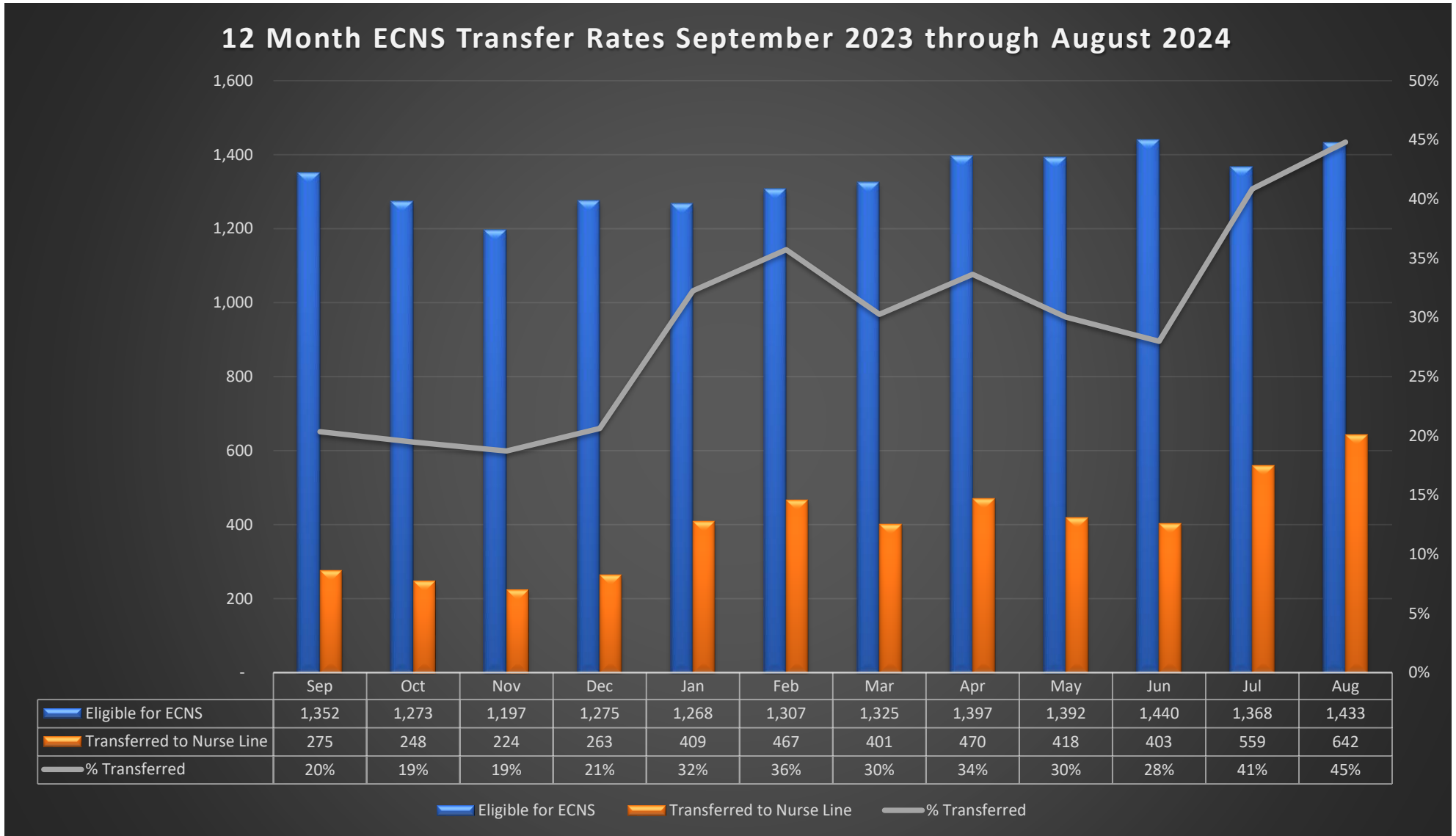|	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Eligible for ECNS	1,352	1,273	1,197	1,275	1,268	1,307	1,325	1,397	1,392	1,440	1,368	1,433
Transferred to Nurse Line	275	248	224	263	409	467	401	470	418	403	559	642
% Transferred	20%	19%	19%	21%	32%	36%	30%	34%	30%	28%	41%	45%

Eligible for ECNS   Transferred to Nurse Line   % Transferred

Figure 4: Number of eligible ECNS calls and rates of transfer from August 2023 through August 2024.

% of ECNS Eligible Calls in Low Code by Week

Legend: ■ Number of eigible calls transferred to ECNS   ■ Number of Calls Transferred to ECN
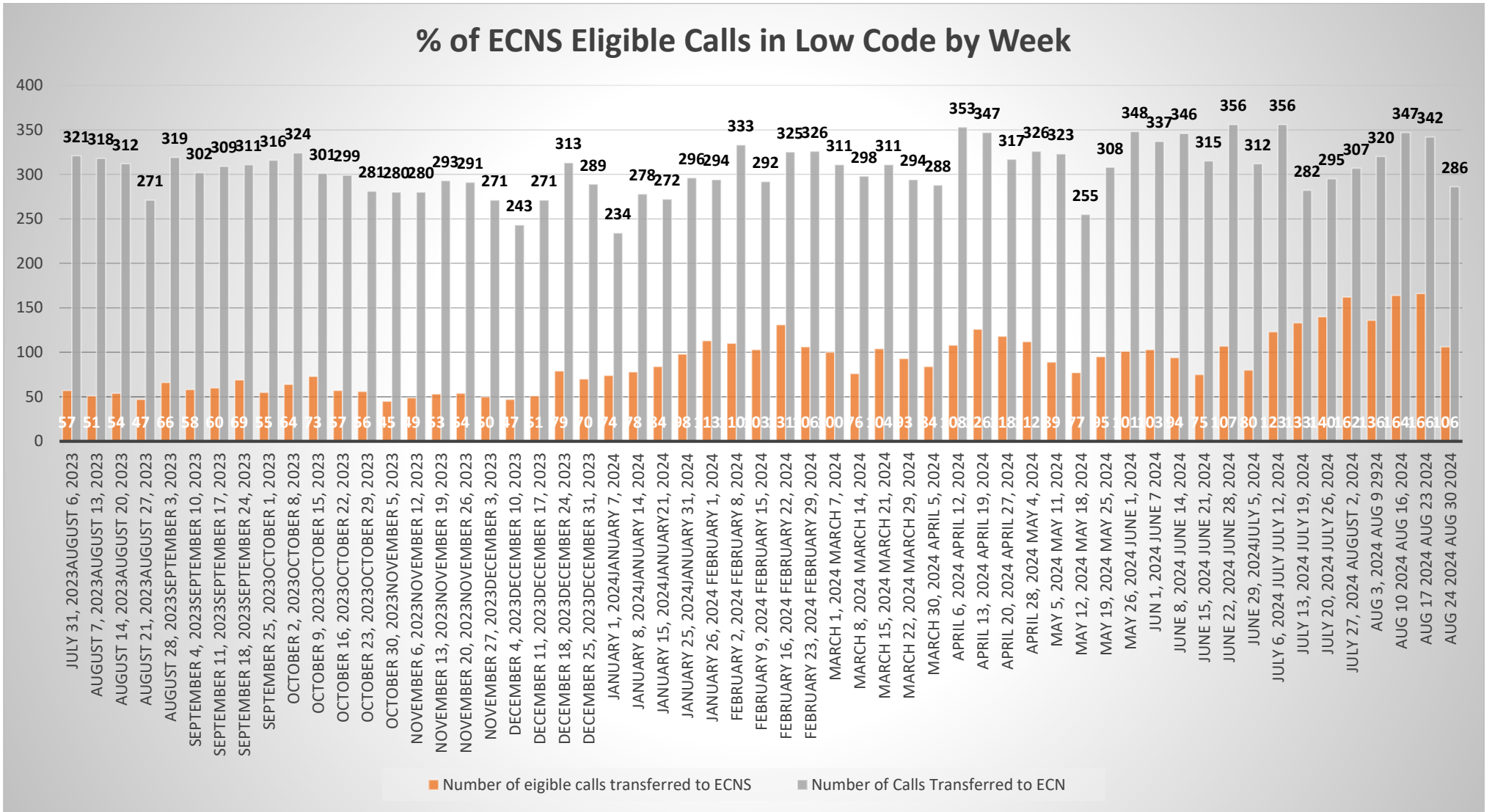
Reasons why ECNS Eligible Calls were not Transferred to the ECNS Nurse Line

August 2024

CONFIRE's CAD is programmed to prompt the dispatcher each time a call is determined to be eligible for transfer to the ECNS system. Eligibility is based on the established determinant code for the call. The dispatcher has the option of bypassing ECNS and sending a standard response for the call but must provide a reason for doing so from a pre-defined list. Below is a summary of reasons calls were not transferred.

These determinations are based on the information that the dispatcher has available and how they interpret the information, so there is a level of subjectivity. Furthermore, because it is a pre-defined list, the categories may not cover the specific situation of each call. Therefore, the dispatcher needs to make a judgement call as to the closest matching category, not necessarily the exact situation.

Table 6: Dispatcher response as to why eligible calls were not transferred to ECNS.

Disposition Text from CAD	Number of Calls	% of Total Eligible Calls Not Sent to LowCode
*Call Taker decided to not send incident to LowCode, with reason: ECN NOT AVAIL= No ECN staff at CONFIRE and REMSA or hold music on transfer (Sup Approval)	544	67.7%
*Call Taker decided to not send incident to LowCode, with reason: ECN NOT AVAIL= No ECN staffing or hold music on transfer	0	0.0%
*Call Taker decided to not send incident to LowCode, with reason: INABILITY TO INTERROGATE PT= Inability to talk, belligerent, RP not at same location	0	0.0%
*Call Taker decided to not send incident to LowCode, with reason: MEDICAL FACILITY RP= RN/Dr requesting 911 AND is at PT bedside	84	10.4%
*Call Taker decided to not send incident to LowCode, with reason: PT COMPLETE IMMOBILITY= Cannot move, bedridden or on the ground unable to get up	0	0.0%
*Call Taker decided to not send incident to LowCode, with reason: PT IN PUBLIC PLACE= PT is in an area where large crowds are gathering (i.e. sports complex)	0	0.0%
*Call Taker decided to not send incident to LowCode, with reason: QUICK LAUNCH= CPR, UNC, CP, SOB, CVA	120	14.9%
*Call Taker decided to not send incident to LowCode, with reason: REOPENED CALL= Reopened call	19	2.4%
*Call Taker decided to not send incident to LowCode, with reason: RP IS MINOR= PT is a minor at school or NO adult on scene	18	2.2%

*Call Taker decided to not send incident to LowCode, with reason: TEST/REOPENED CALL= Test or reopened call	0	0.0%
*Call Taker decided to not send incident to LowCode, with reason: MEDICAL FACILITY RP= Staff requesting 911 or PT directed by medical facility to call 911	0	0.0%
*Call Taker decided to not send incident to LowCode, with reason: RP IS MINOR= RP is a child caller <16 or RP is a minor calling for minor PT	0	0.0%
* Call Taker decided to not send incident to LowCode, with reason: PUBLIC SERVICE= A public service has been dispatched	0	0.0%
* Call Taker decided to not send incident to LowCode, with reason: REOPENED CALL= Reopened call	19	2.4%