



Insights from ACSIS 2024

פרופ קטיה אורבין
יו"ר החוג לטיפול נמרץ לב



Acute Coronary Syndrome Israeli Survey (ACSIS)

Period	Every 2-3 years since 1992 for a 2 month period
Hospitals	All 26 hospitals admitting ACS (25 PCI capable)
Departments	CCU/Cardiology
Inclusion	All admitted ACS patients



Acute Coronary Syndrome Israeli Survey (ACSIS)

הסקר הושק לראשונה ב 1992
על ידי פרופ שלמה בכר
(שהלך לעולמו בשנת 2012)

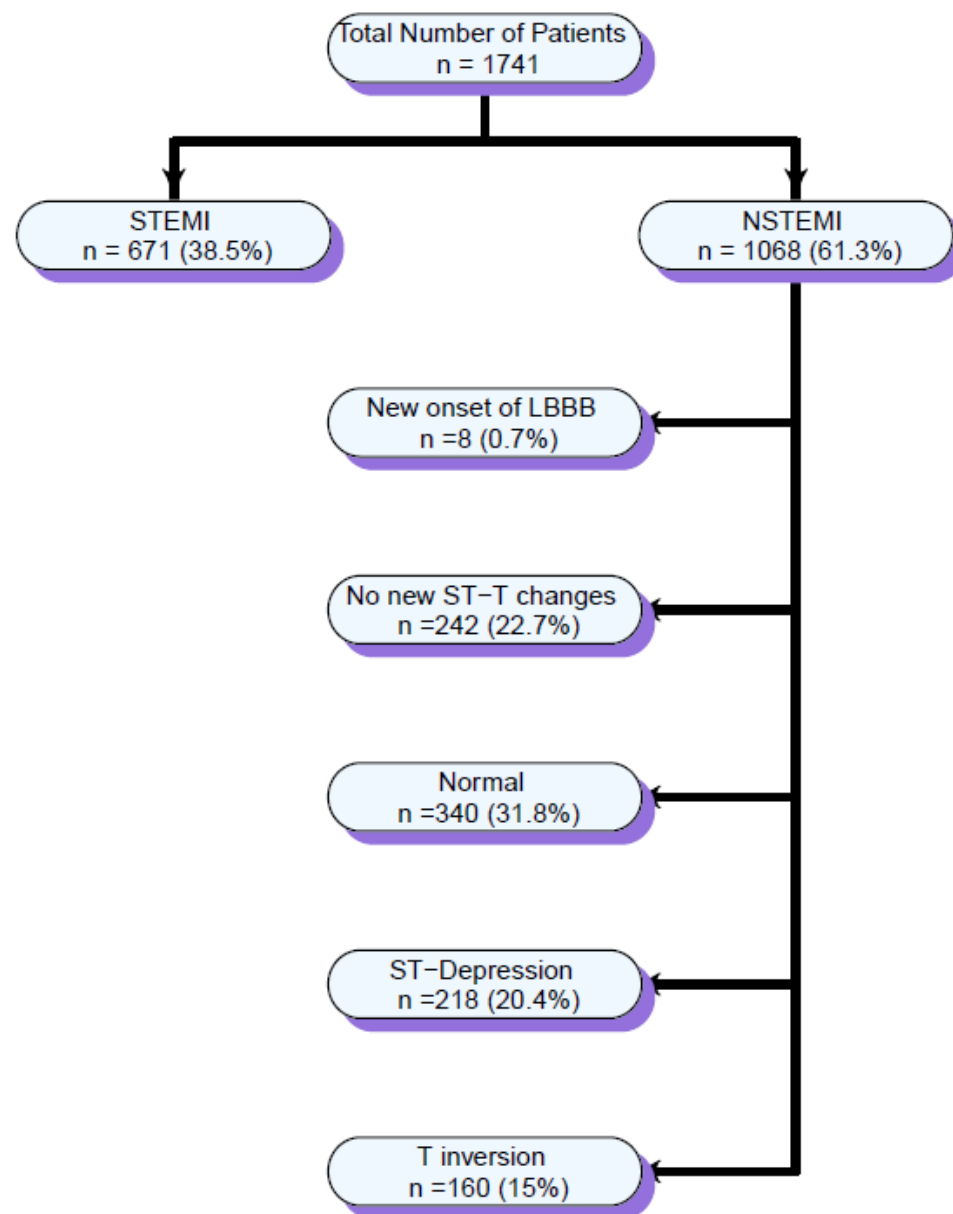
מאז 2000 הסקר מתקיים באופן
רציף.

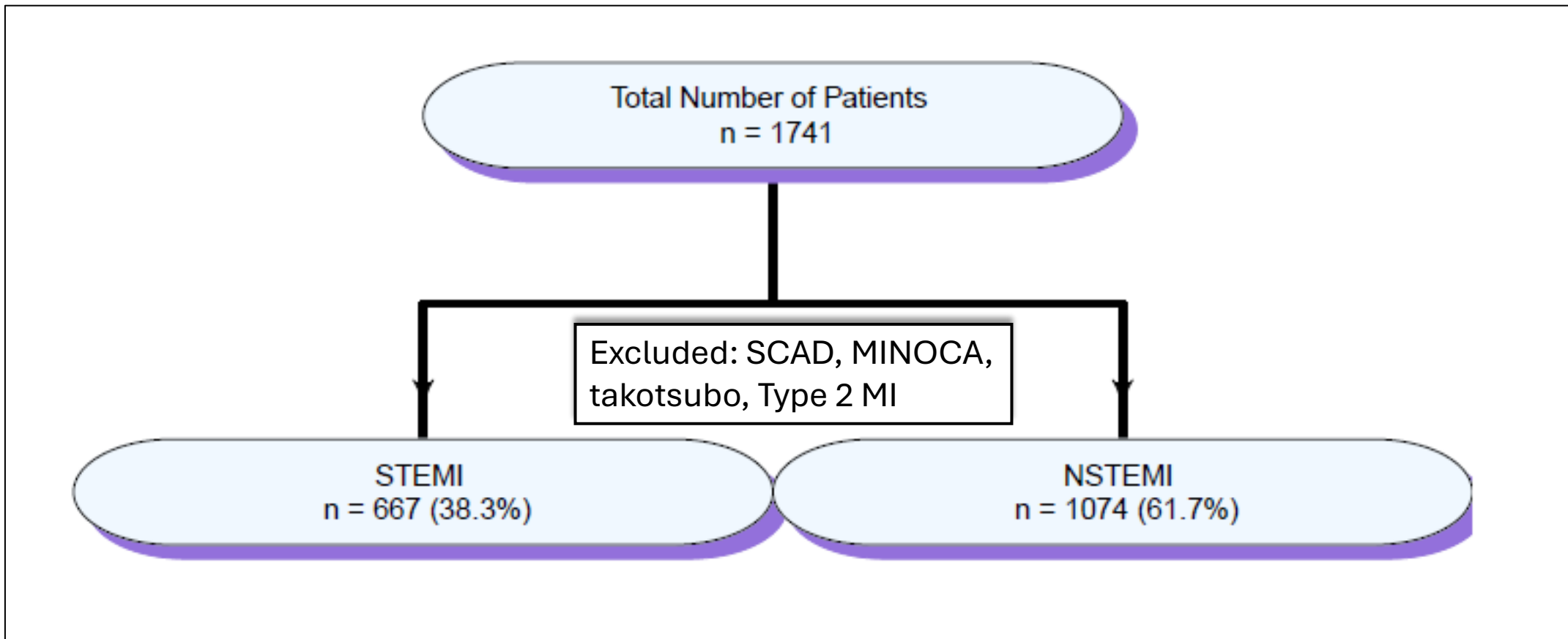


פרופ' שלמה בכר

e Med

Figure 1.1.a: Distribution of Patients with ACS by ECG on Admission





Demography

Figure 1.2: Age Distribution by ECG on Admission

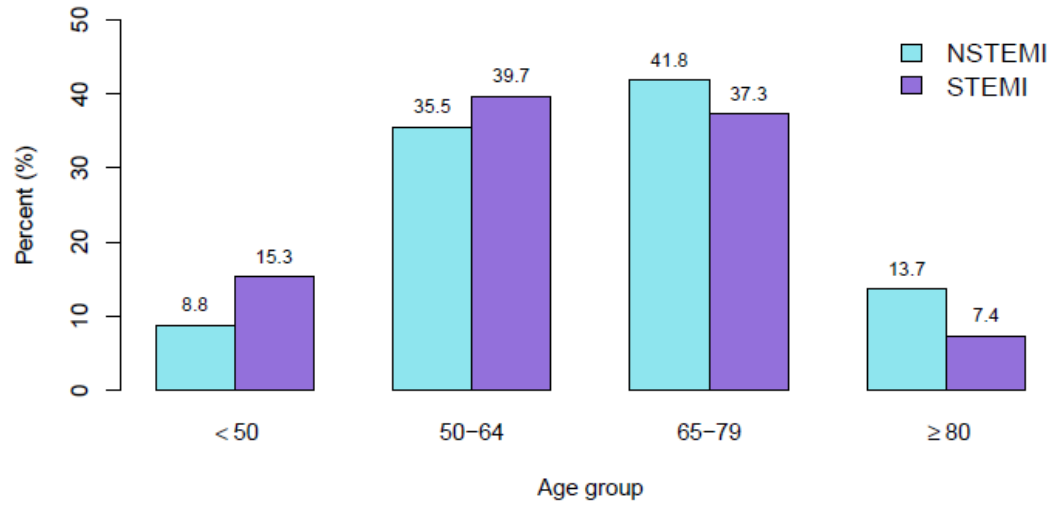
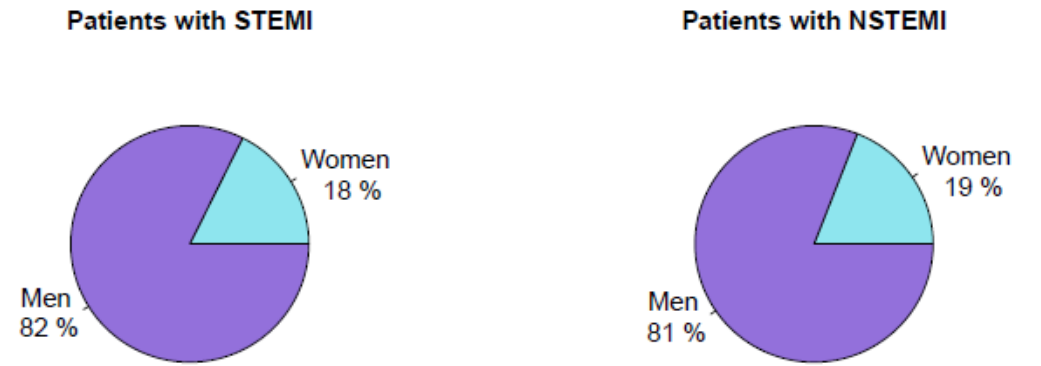


Figure 1.4: Sex Distribution



Traditional risk factors and CV history

Figure 1.5: Cardiovascular history

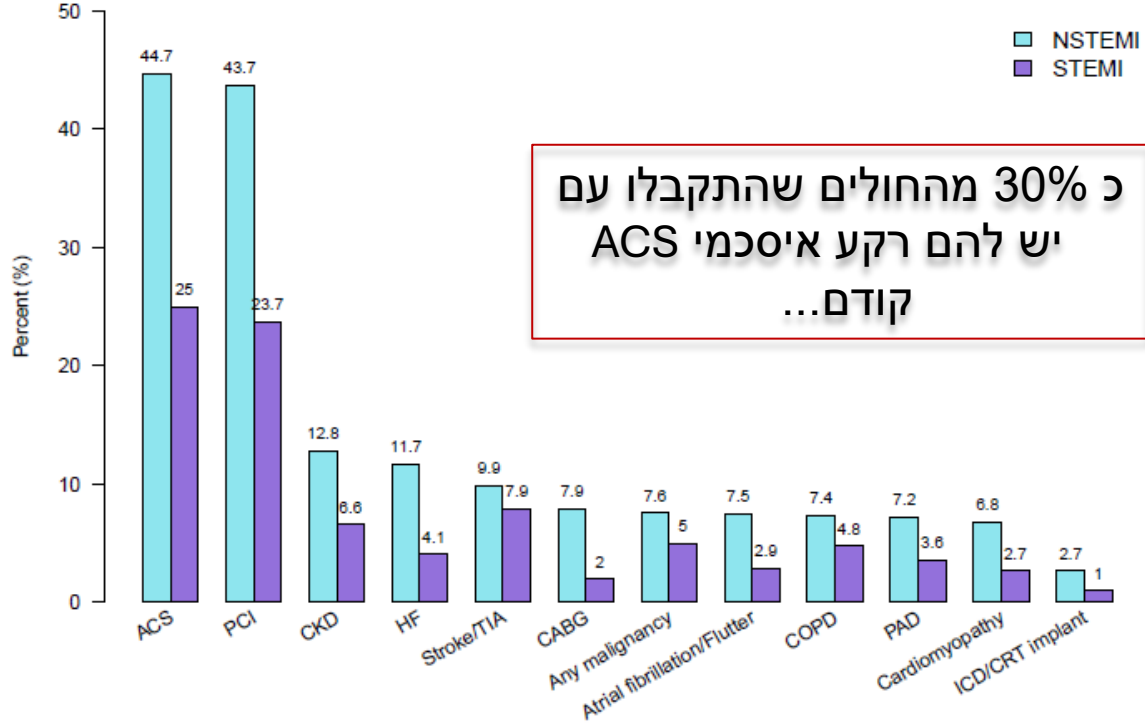
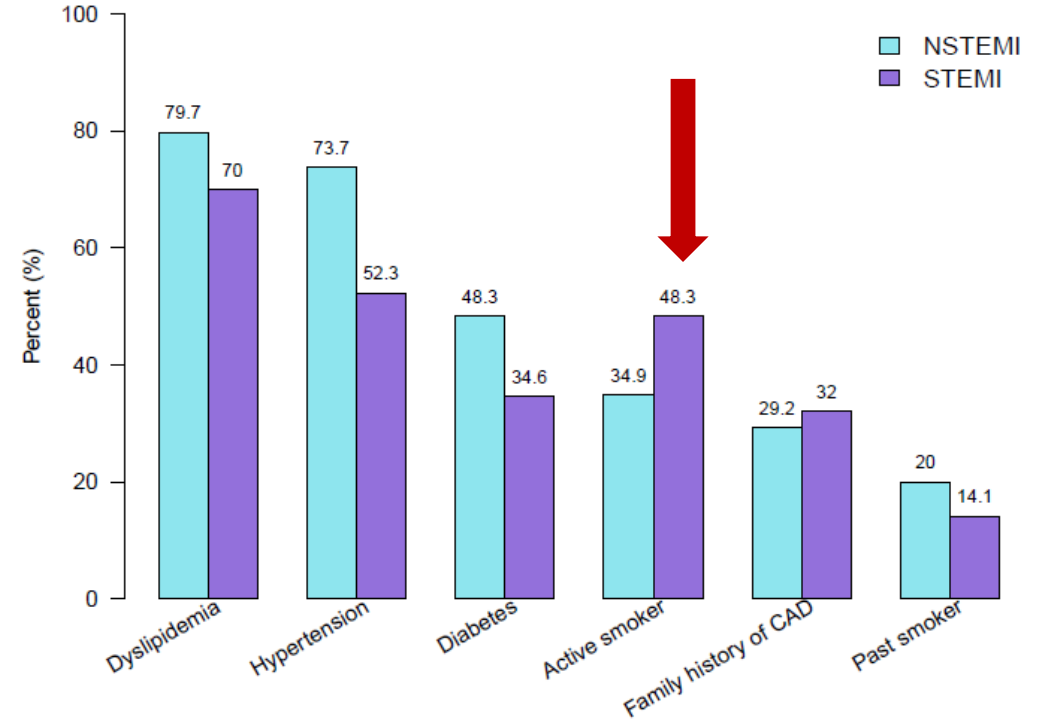


Figure 1.6: Risk Factors

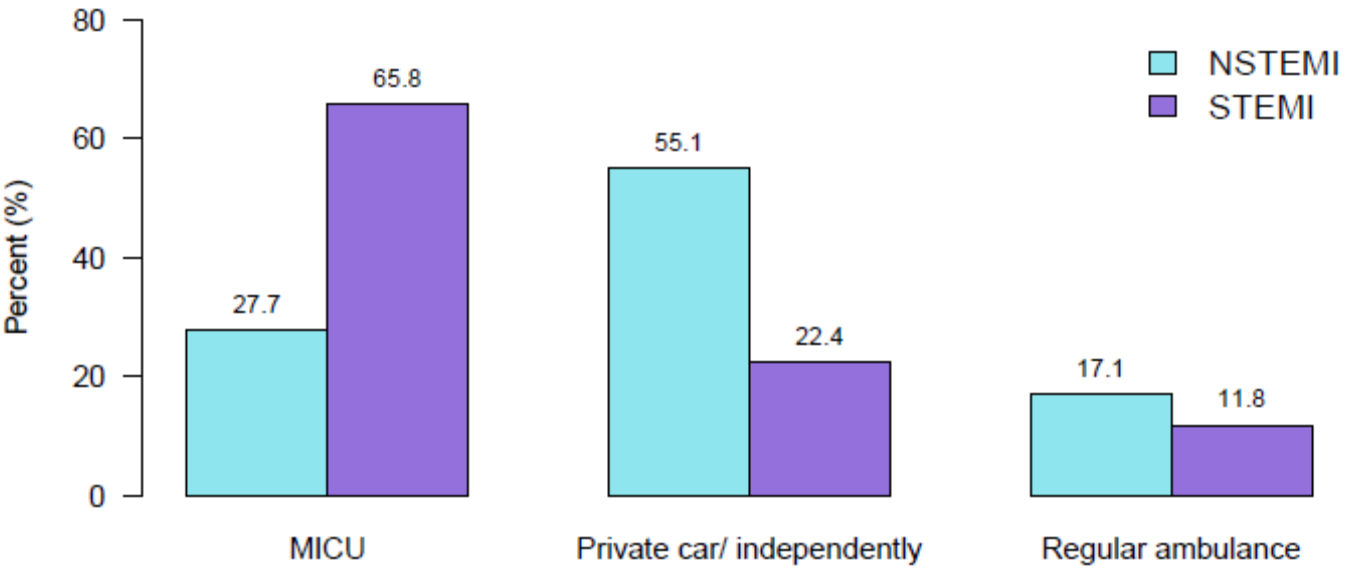




Mode of transport

66% בלבד מחולי הSTEMI מפונים על ידי
ניידת טיפול נמרץ!

Figure 1.8: Mode of Transportation by ECG on Admission



Time intervals

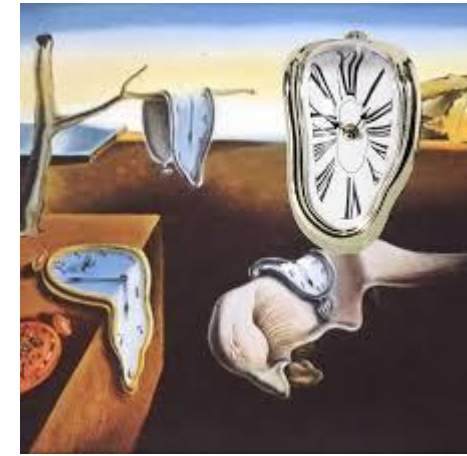


Figure 1.12: Median Length of Time from Symptom Onset to Admission

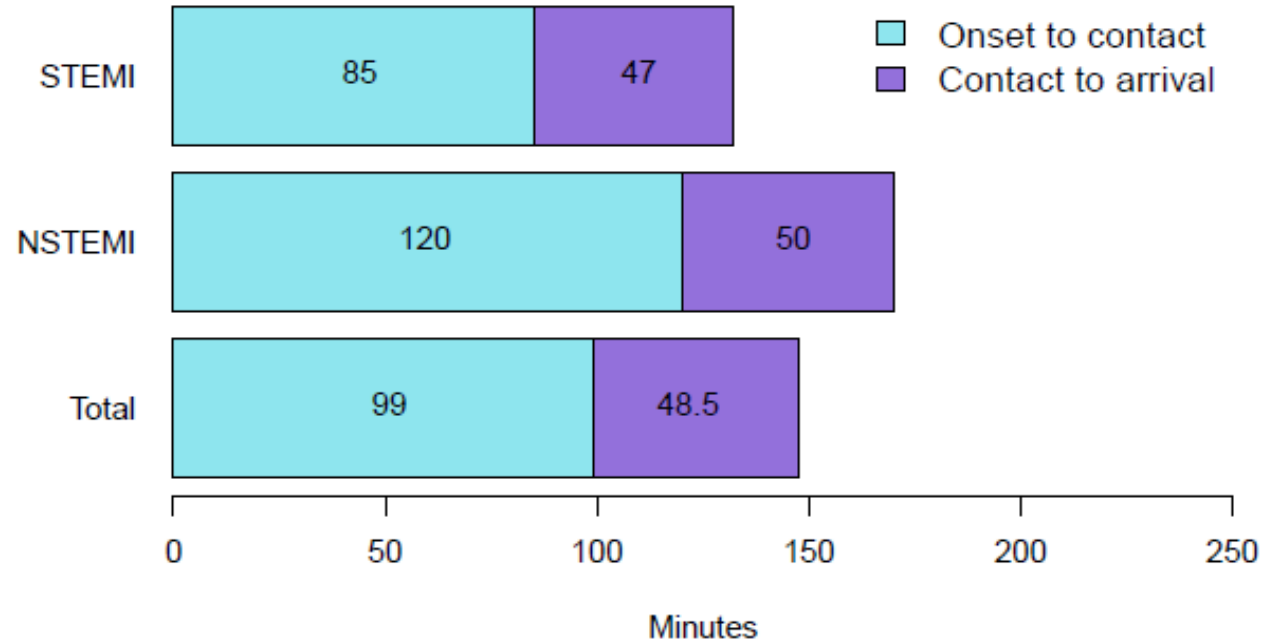
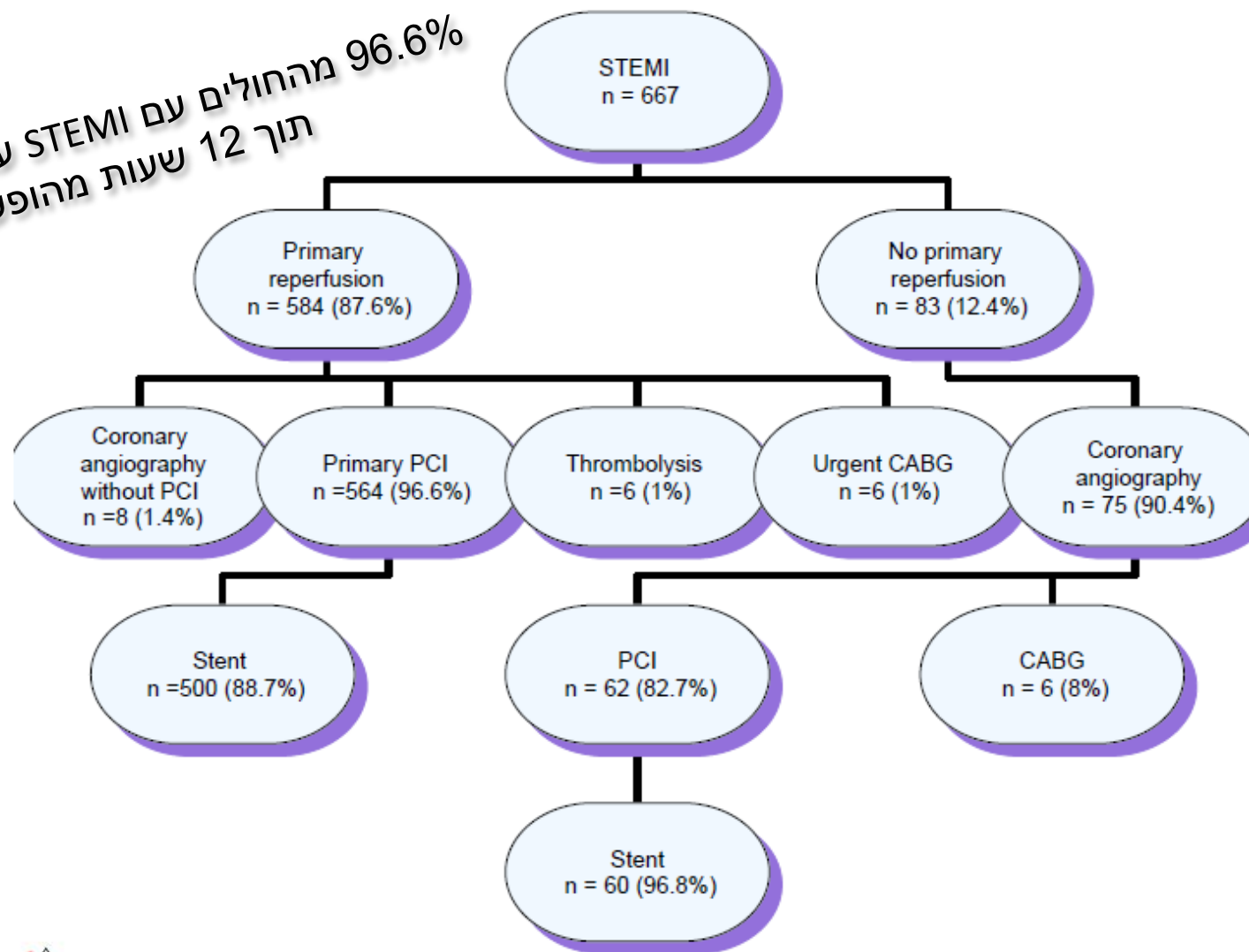


Figure 1.18: Primary Reperfusion in Patients with STEMI

96.6% מהחולים עם STEMI עברו צינתור דחוף- PPCI תוך 12 שעות מהופעת הכאבים!



Time intervals

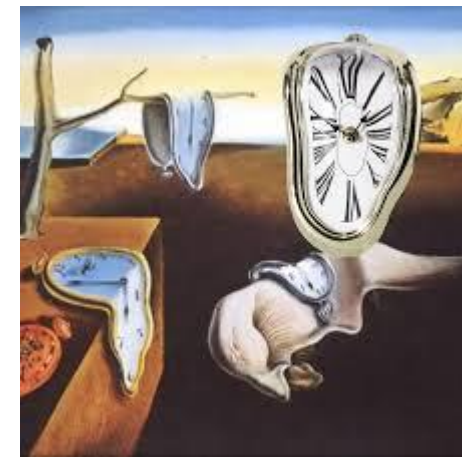


Figure 1.19: Length of Time from Arrival to Reperfusion
(Median, 25%–75%)

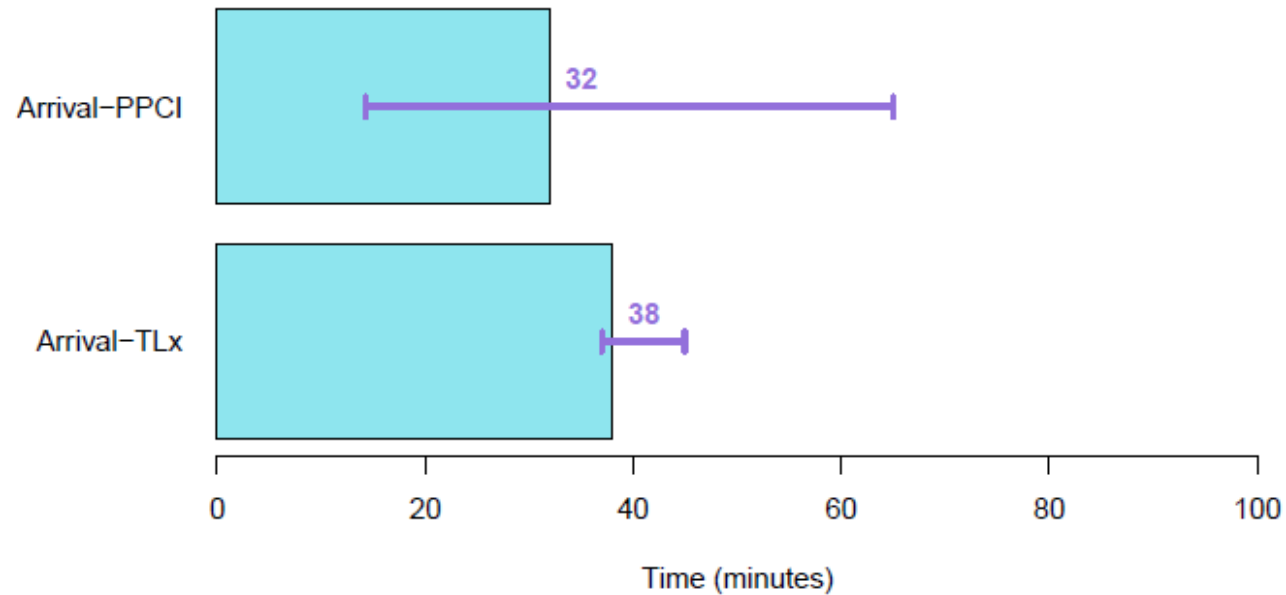


Figure 1.21: Reasons for Not Performing Primary Reperfusion
Number of Patients = 83

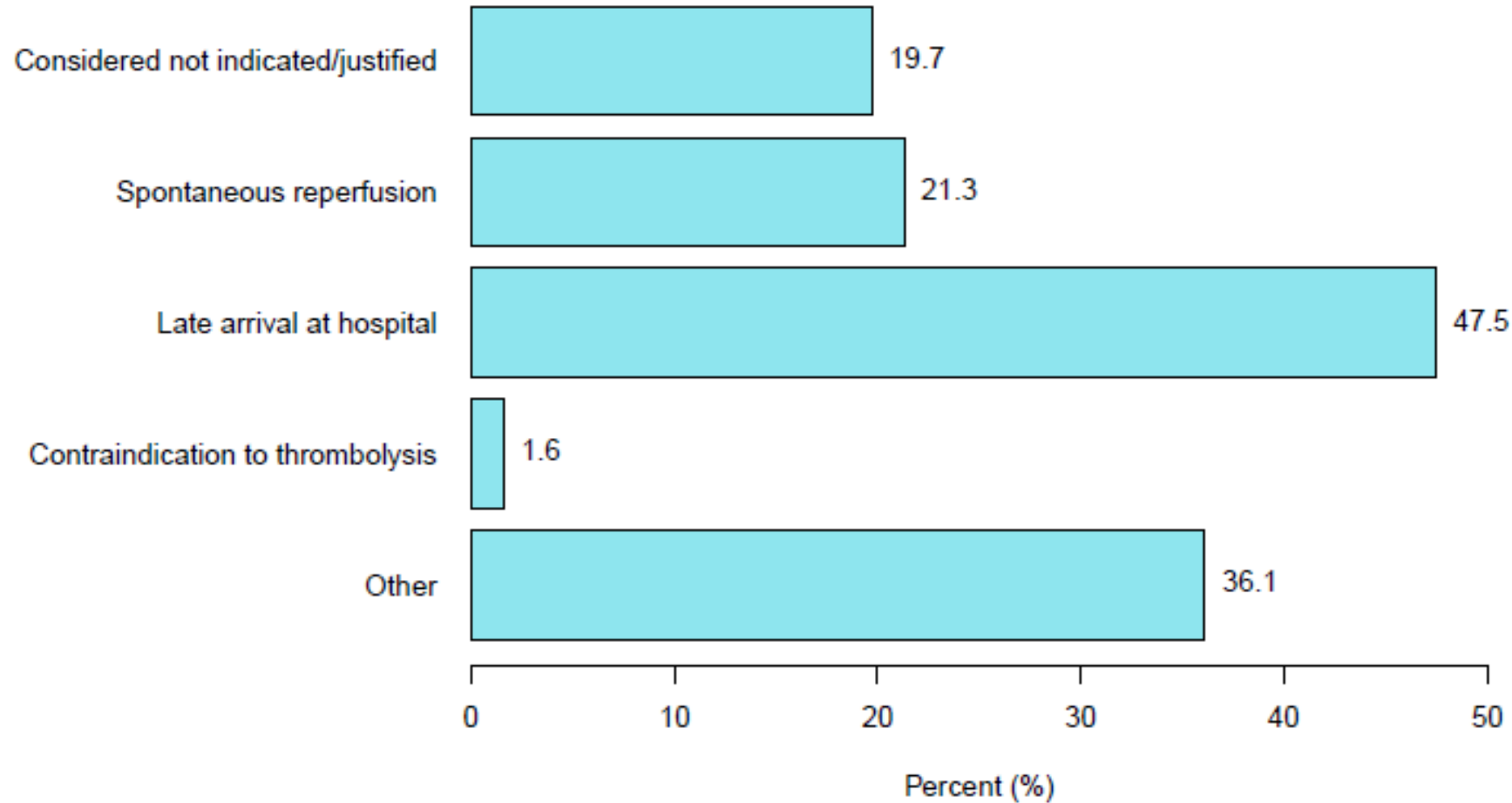


Table 1.28: In-Hospital Medical Treatment

	Total	NSTEMI	STEMI	p-value
n	1741	1074	667	
Anti-platelets				
Aspirin (%)	1389 (92.8)	829 (91.1)	560 (95.6)	0.002
P2Y12 inhibitors (%)	1232 (82.4)	695 (76.4)	537 (91.6)	<0.001
Clopidogrel (%)	391 (26.1)	299 (32.9)	92 (15.7)	<0.001
Prasugrel (%)	495 (33.1)	187 (20.5)	308 (52.6)	<0.001
Ticagrelor (%)	379 (25.3)	222 (24.4)	157 (26.8)	0.327
Anticoagulants				
Oral anticoagulants ¹	94 (6.3)	48 (5.3)	46 (7.8)	0.058
Warfarin (%)	11 (0.7)	7 (0.8)	4 (0.7)	1.000
Dabigatran (%)	0 (0.0)	0 (0.0)	0 (0.0)	NA
Rivaroxaban (%)	10 (0.7)	4 (0.4)	6 (1.0)	0.304
Apixaban (%)	76 (5.1)	39 (4.3)	37 (6.3)	0.105
Other				
ACE-I (%)	575 (38.4)	270 (29.7)	305 (52.0)	<0.001
ARB (%)	215 (14.4)	135 (14.8)	80 (13.7)	0.575
Spirolactone (%)	224 (15.0)	95 (10.4)	129 (22.0)	<0.001
Beta Blockers (%)	787 (52.6)	402 (44.2)	385 (65.7)	<0.001
Digoxin (%)	6 (0.4)	3 (0.3)	3 (0.5)	0.900
CCB (%)	137 (9.2)	92 (10.1)	45 (7.7)	0.134
Amiodarone (%)	49 (3.3)	26 (2.9)	23 (3.9)	0.325
Other Anti-Arrhythmic (%)	7 (0.5)	2 (0.2)	5 (0.9)	0.172
Nitrates (%)	70 (4.7)	50 (5.5)	20 (3.4)	0.083
Diuretics (%)	182 (12.2)	116 (12.7)	66 (11.3)	0.438
Proton-Pump Inhibitors (PPI) (%)	811 (54.2)	443 (48.7)	368 (62.8)	<0.001
H2 Blockers (%)	19 (1.3)	14 (1.5)	5 (0.9)	0.358
Colchicine (%)	28 (1.9)	18 (2.0)	10 (1.7)	0.855
IV inotropic agent (%)	35 (2.0)	9 (0.8)	26 (3.9)	<0.001
Antihyperglycemic ²	169 (24.6)	90 (19.7)	79 (34.6)	<0.001
Statins (%)	1022 (68.3)	562 (61.8)	460 (78.5)	<0.001
Ezetimibe (%)	377 (25.2)	192 (21.1)	185 (31.6)	<0.001

Notes:

Figure 1.23: Unadjusted Rates of In-Hospital, 7-Day & 30-Day Mortality and 30-Day MACE

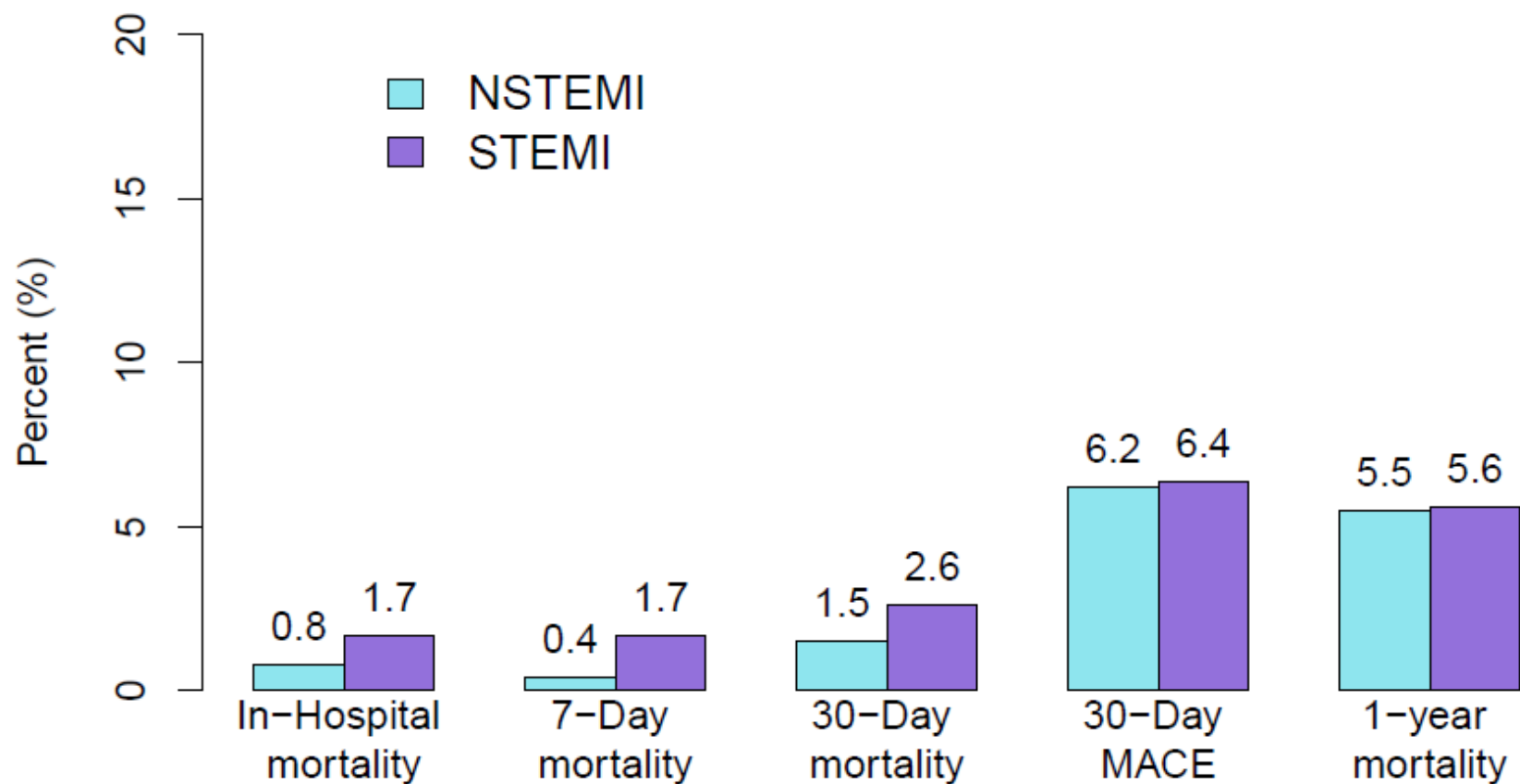


Table 1.29: Length of Stay in ICCU/Cardiology and Total Hospital Stay

	Total	NSTEMI	STEMI
n	1741	1074	667
No. of days in ICCU/Cardiology (median [IQR])	3 [2 , 4]	3 [2 , 4]	3 [3 , 5]
Total hospital days (median [IQR])	3 [2 , 5]	3 [2 , 4]	3 [3 , 5]

Note:

STEMI/NSTEMI diagnosis is upon discharge

Temporal trends 2010-2024

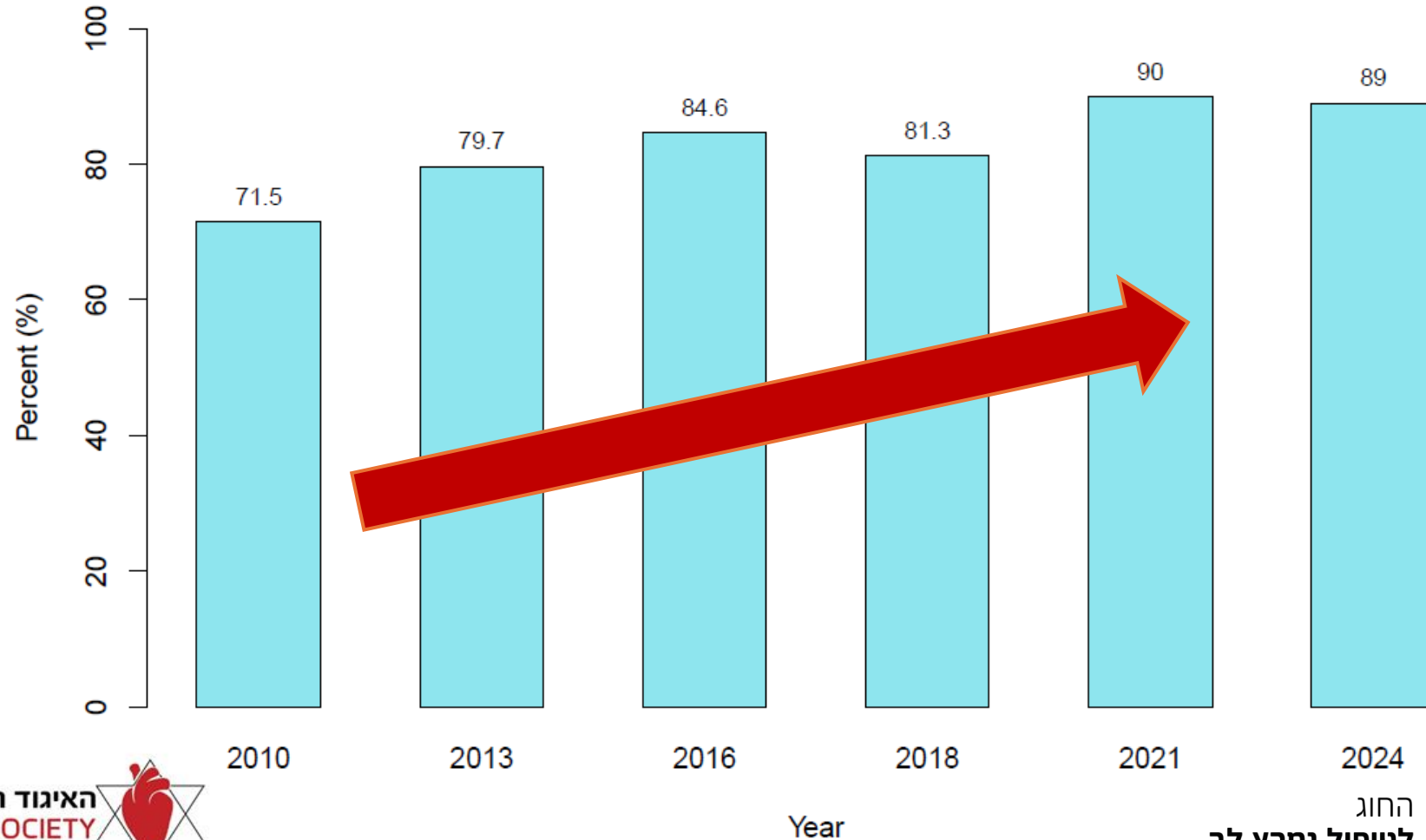
Demography

Table 2.1: Patients' Characteristics

	2010	2013	2016	2018	2021	2024	p for trend
n	1779	1885	1791	1778	1725	1741	
Sex (Male) (%)	1378 (77.5)	1453 (77.1)	1414 (79.0)	1427 (80.3)	1377 (79.8)	1418 (81.4)	<0.001
Age (%)							0.01
≤ 50	272 (15.3)	297 (15.8)	246 (13.7)	260 (14.6)	238 (13.8)	230 (13.2)	
50-75	1158 (65.1)	1195 (63.4)	1162 (64.9)	1158 (65.2)	1182 (68.5)	1163 (66.8)	
> 75	349 (19.6)	393 (20.8)	382 (21.3)	357 (20.1)	305 (17.7)	348 (20.0)	
Age (mean (sd))	63.64 (12.67)	63.97 (12.91)	64.67 (12.82)	64.28 (12.69)	64.27 (12.29)	64.82 (12.10)	0.008

Primary PCI

Figure 2.2: Primary Reperfusion among Patients with STEMI (diagnosis upon admission)



הזמן שלוקח למטופל לפנות לקבלת טיפול ממשיך לעלות!
 הזמן מאיבחון לצינתור יורד!

Table 2.7.2: Time Intervals in STEMI reperfused patients in PPCI (minutes)

	2010	2013	2016	2018	2021	2024	p for trend
n	503	536	544	526	610	541	
Symptom onset to ED arrival (median [IQR])	111.00 [68.50, 213.50]	129.00 [74.00, 242.25]	117.00 [70.00, 195.00]	120.00 [75.00, 212.00]	121.50 [71.00, 324.75]	126.50 [75.00, 239.25]	0.002
ED arrival to primary PCI (door to balloon) (median [IQR])	65.00 [36.50, 109.50]	66.00 [35.00, 101.00]	50.00 [25.25, 84.75]	48.00 [25.25, 79.00]	39.00 [14.00, 74.25]	32.00 [14.25, 65.00]	<0.001
Onset to balloon (median [IQR])	195.00 [130.00, 331.00]	196.50 [140.00, 350.00]	170.00 [120.00, 287.00]	178.00 [120.00, 277.50]	175.00 [104.00, 422.00]	173.00 [117.00, 327.75]	0.238
Door to balloon \leq 90 min. (%)	326 (66.9)	345 (70.6)	406 (79.0)	367 (82.3)	456 (82.0)	418 (86.0)	<0.001

Labs

1.10 Blood test values during hospitalization

Table 1.26: Blood test values during hospitalization

	Total	NSTEMI	STEMI	p-value
n	1741	1074	667	
Troponin I (ng/L) Max (mean(sd))	19878.37 (45507.93)	5822.96 (14463.56)	44117.33 (66052.11)	<0.001
Troponin T (ng/L) Max (mean(sd))	5654.12 (33594.15)	1178.93 (3974.12)	10623.01 (48181.70)	0.001
Hemoglobin (mg/dL) on admission (mean(sd))	14.16 (1.84)	14.02 (1.85)	14.38 (1.81)	<0.001
Hemoglobin (mg/dL) Min (mean(sd))	13.20 (2.00)	13.18 (2.03)	13.23 (1.95)	0.635
Creatinine (mg/dL) on admission(mean(sd))	1.08 (0.77)	1.12 (0.75)	1.03 (0.80)	0.042
Creatinine (mg/dL) Max (mean(sd))	1.24 (0.97)	1.28 (1.03)	1.17 (0.87)	0.062
HbA1C (mean(sd))	6.43 (1.55)	6.49 (1.49)	6.34 (1.63)	0.079
Cholesterol total (mg/dL)	169.83 (50.30)	162.54 (49.42)	180.19 (49.75)	<0.001
Cholesterol LDL (mg/dL)	100.01 (44.25)	92.75 (43.03)	110.27 (43.97)	<0.001
Cholesterol HDL (mg/dL)	40.89 (13.08)	40.51 (12.68)	41.42 (13.61)	0.223
Triglycerides (mg/dL)	151.75 (113.32)	159.17 (116.73)	141.26 (107.55)	0.005
LP(a) (mg/dL)	35.50 (41.29)	42.22 (47.48)	29.45 (33.78)	0.002

	count
LPACAT	
No risk	228
High risk	80
Medium risk	56

Medical treatment

Figure 2.5: Trends in Hospital Treatment

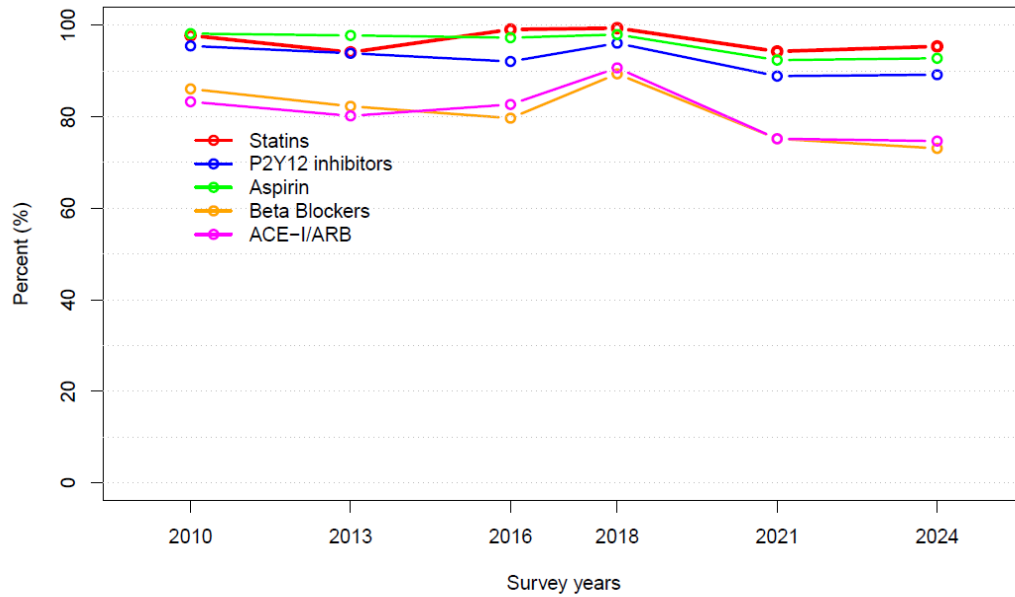
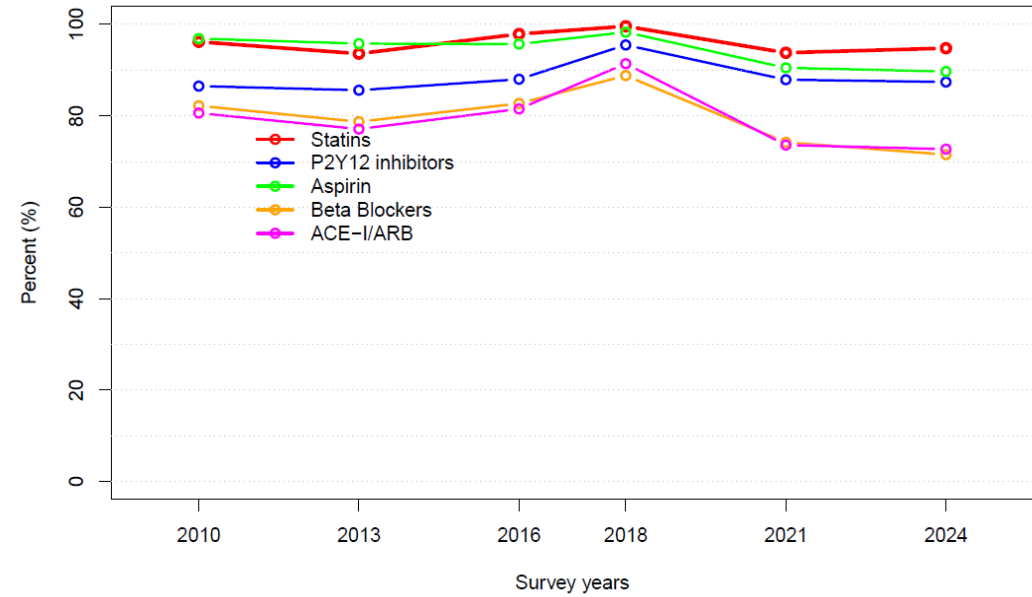


Figure 2.6: Medical Treatment in Discharge among Hospital Survivors



Mortality

התמותה ב 6 שנים האחרונות ירדה מ
8% ל 5% בשנה !

Figure 2.7: Rates of Mortality and 30-day MACE

