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🏥 PATIENT VITAL SIGNS DASHBOARD - JUPYTER VERSION
==========================================================
Generating sample patient data...
Generated data for 15 patients over 14 days
Total records: 1260
=== DATA OVERVIEW ===
Total Records: 1260
Unique Patients: 15
Date Range: 2025-07-22 15:23:10.944446 to 2025-08-05 11:23:10.944446
Days Covered: 13
Missing Values: 0
```

```
=== VITAL SIGNS SUMMARY ===
       heart_rate  systolic_bp  diastolic_bp  temperature  oxygen_saturation
count     1260.00      1260.00       1260.00      1260.00            1260.00
mean        75.80       117.72         80.15        98.50              97.75
std         10.20        16.45         12.02         0.68               1.45
min         42.10        70.00         45.00        96.20              91.20
25%         68.68       107.20         71.68        98.00              96.90
50%         75.40       118.50         82.40        98.50              97.85
75%         82.90       130.10         88.50        99.00              98.80
max        115.20       162.70        121.60       100.30             100.00
```

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=== RISK DISTRIBUTION ===
LOW: 924 (73.3%)
HIGH: 252 (20.0%)
MEDIUM: 84 (6.7%)
```
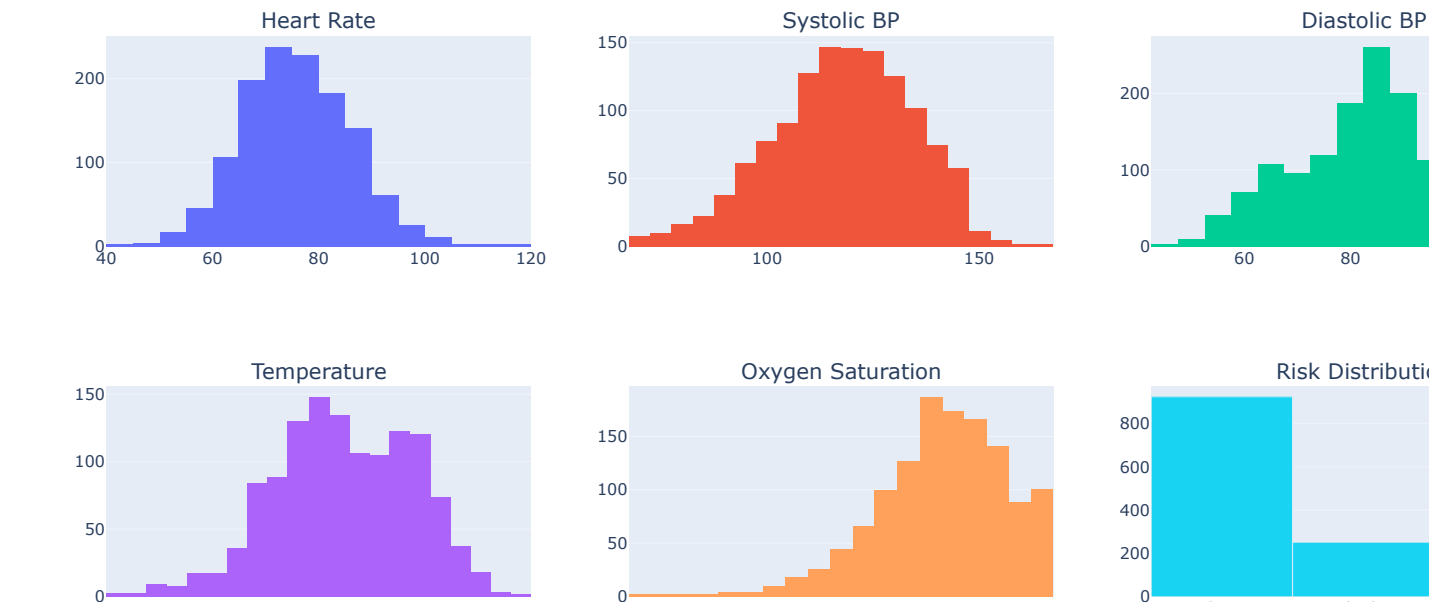
📈 Generating Heart Rate Trends...
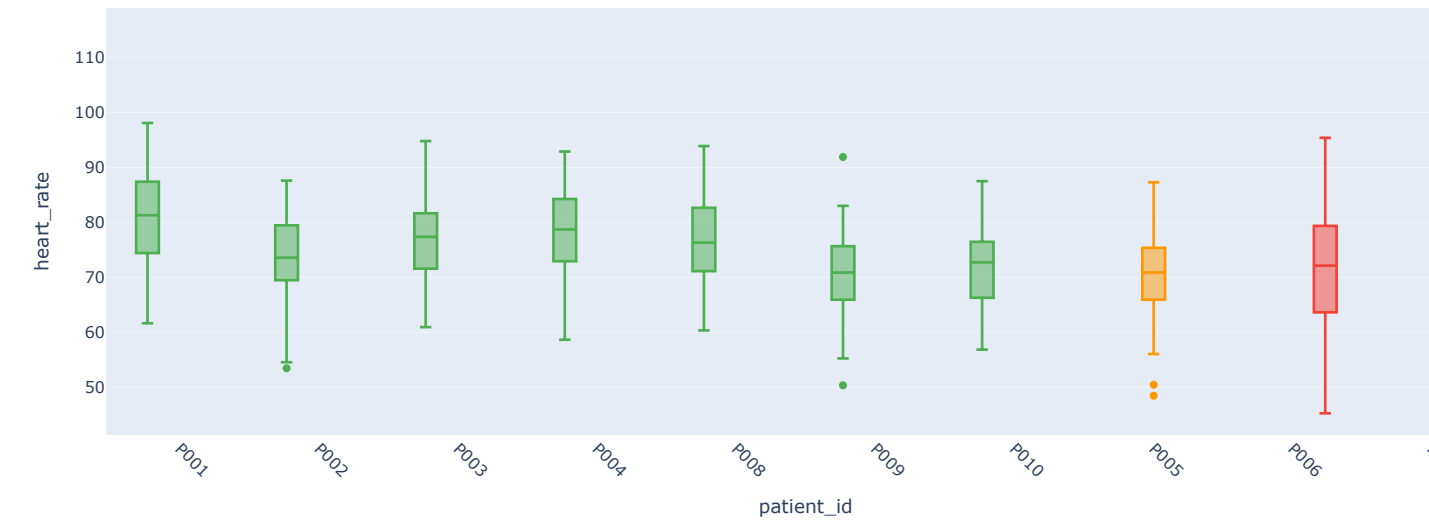
Heart Rate Trends - Last 7 Days
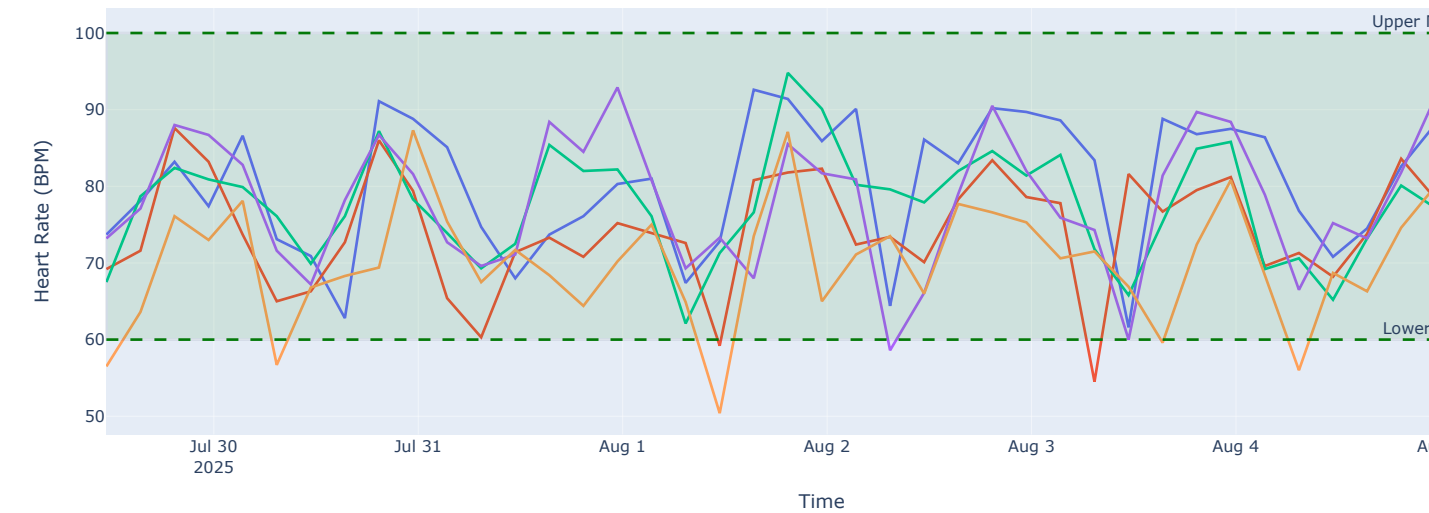
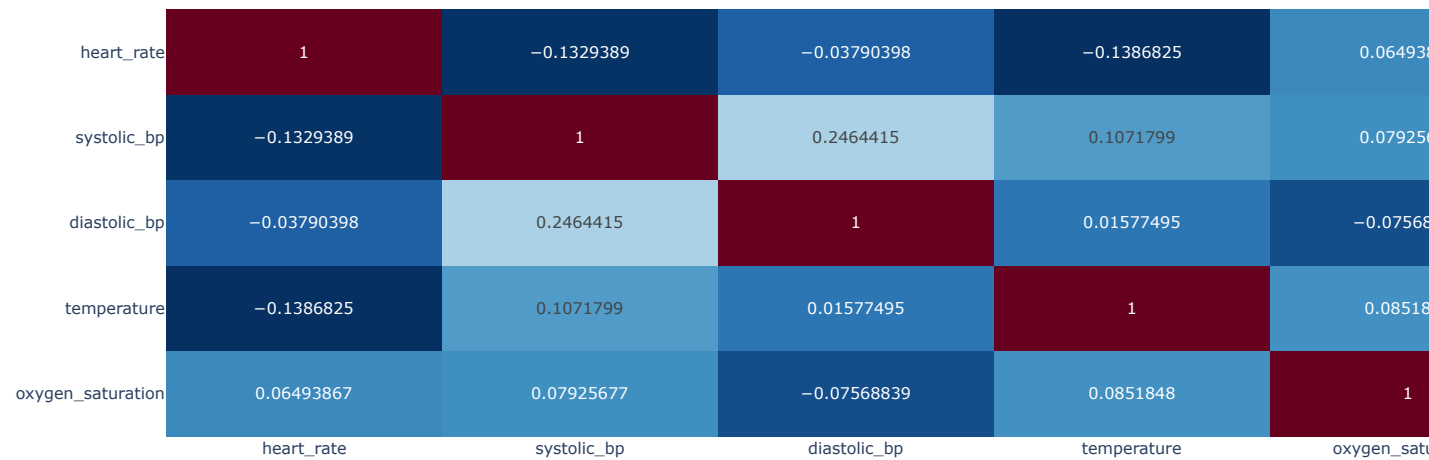📊 Generating Vital Signs Distribution...

Vital Signs Distribution

| 97 | 98 | 99 | 100 | | 92 | 94 | 96 | 98 | 100 | | low | high |

👥 Generating Patient Comparison...

Heart Rate Distribution by Patient

🔍 Generating Correlation Analysis...

Vital Signs Correlation Matrix

	heart_rate	systolic_bp	diastolic_bp	temperature	oxygen_satu
heart_rate	1	−0.1329389	−0.03790398	−0.1386825	0.064938
systolic_bp	−0.1329389	1	0.2464415	0.1071799	0.079256
diastolic_bp	−0.03790398	0.2464415	1	0.01577495	−0.07568
temperature	−0.1386825	0.1071799	0.01577495	1	0.08518
oxygen_saturation	0.06493867	0.07925677	−0.07568839	0.0851848	1

⚠️ Performing Risk Assessment...
=== PATIENT RISK ASSESSMENT ===

Patient: P001
Overall Risk: LOW
Risk Score: 1
Last Assessment: 2025-08-05 11:23:10.944446
Active Alerts:
  • WARNING: Temperature = 99.8

Patient: P002
Overall Risk: LOW
Risk Score: 1
Last Assessment: 2025-08-05 11:23:10.944446
Active Alerts:
  • WARNING: Diastolic Bp = 94.8

Patient: P003
Overall Risk: LOW
Risk Score: 0
Last Assessment: 2025-08-05 11:23:10.944446
No active alerts

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Patient: P004
Overall Risk: LOW
Risk Score: 1
Last Assessment: 2025-08-05 11:23:10.944446
Active Alerts:
  • WARNING: Diastolic Bp = 53.2

Patient: P005
Overall Risk: LOW
Risk Score: 0
Last Assessment: 2025-08-05 11:23:10.944446
No active alerts

Patient: P006
Overall Risk: LOW
Risk Score: 2
Last Assessment: 2025-08-05 11:23:10.944446
Active Alerts:
  • WARNING: Systolic Bp = 87.7
  • WARNING: Temperature = 99.2

Patient: P007
Overall Risk: LOW
Risk Score: 2
Last Assessment: 2025-08-05 11:23:10.944446
Active Alerts:
  • WARNING: Temperature = 96.7
  • WARNING: Oxygen Saturation = 94.4

Patient: P008
Overall Risk: LOW
Risk Score: 0
Last Assessment: 2025-08-05 11:23:10.944446
No active alerts

Patient: P009
Overall Risk: LOW
Risk Score: 0
Last Assessment: 2025-08-05 11:23:10.944446
No active alerts

Patient: P010
Overall Risk: LOW
Risk Score: 1
Last Assessment: 2025-08-05 11:23:10.944446
Active Alerts:
  • WARNING: Temperature = 99.4

=== RISK SUMMARY ===
Patient Risk Level  Risk Score  Alert Count
   P001        low           1            1
   P002        low           1            1
   P003        low           0            0
   P004        low           1            1
   P005        low           0            0
   P006        low           2            2
   P007        low           2            2
   P008        low           0            0
   P009        low           0            0
   P010        low           1            1


=============================================================
Dashboard loaded successfully!

Available methods:
- dash.plot_heart_rate_trends(patient_ids=['P001', 'P002'], days_back=7)
- dash.plot_patient_comparison(vital_sign='systolic_bp')
- dash.generate_risk_assessment(patient_ids=['P001', 'P002'])
- dash.export_data('my_export.csv')

Use dash.data to access the DataFrame directly
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