

Meridian Health Clinics

Multi-Site Primary Care Group

How a **Python patient analytics system** helped a five-site GP and specialist clinic group identify a £180,000 annual revenue leak from no-shows – and cut appointment DNA rates from 24% to 9% in 60 days.

£180K

ANNUAL REVENUE LOST
TO NO-SHOWS — IDENTIFIED

24% → 9%

DNA RATE REDUCTION
ACROSS ALL FIVE SITES

£68

AVERAGE REVENUE PER
APPOINTMENT RECOVERED

4.2 hrs

ADMIN TIME SAVED
PER WEEK PER SITE

CLIENT

Meridian Health Clinics

SITES

5 Clinics - 3,800 Patients

STACK

Python · Streamlit

Empty Chairs. Invisible Losses.

Meridian Health Clinics operates five primary care and specialist sites seeing approximately 3,800 registered patients. Appointments were being booked, confirmed — and then missed at a rate of 24% across all sites. Every missed appointment (DNA — Did Not Attend) represented a lost consultation fee, an empty clinical room, and a clinician's time wasted.

Nobody had calculated what that cost annually. The practice managers knew DNAs were a problem, but the number — £180,000 per year — had never been quantified. Without a system, each site was managing its appointment book independently with no cross-site visibility, no DNA trend analysis, and no ability to identify which patient groups, appointment types, or time slots were driving the highest no-show rates.

Reminders were being sent manually by reception staff — inconsistently, late, and without any prioritization based on a patient's historical DNA behaviour. High-risk patients were receiving the same reminder treatment as reliable attenders. The opportunity cost was invisible and growing.

"We knew DNAs were bad. We didn't know they were costing us £180,000 a year until the dashboard told us. That number changed our entire approach to booking."

24%

DNA RATE BEFORE SYSTEM
ACROSS ALL FIVE SITES

£180K

ANNUAL REVENUE LOST TO
NO-SHOWS — NEVER QUANTIFIED

9%

NEW DNA RATE AFTER 60 DAYS
OF TARGETED INTERVENTIONS

4.2hr

ADMIN TIME SAVED PER WEEK
PER SITE — AUTOMATED REMINDERS

Five Sites. One Patient View.

APPOINTMENTS / WEEK

620

ACROSS ALL 5 SITES

DNA RATE (CURRENT)

9%

DOWN FROM 24% — 60 DAYS

REVENUE RECOVERED

£108K

ANNUALISED — FIRST 60 DAYS

HIGH-RISK PATIENTS

186

FLAGGED FOR PRIORITY REMINDER

WEEKLY APPOINTMENT VOLUME VS DNA EVENTS — 16 WEEKS

TREND VIEW

DNA RATE BY APPOINTMENT TYPE

DNA RATE BY TIME SLOT — HOUR OF DAY

HIGH-RISK PATIENT REGISTER — DNA HISTORY SCORE

PRIORITY REMINDER LIST

PATIENT ID	SITE	APPT TYPE	NEXT BOOKING	HISTORICAL DNA RATE	DNA COUNT (12MO)	RISK SCORE	ACTION
PT-00142	Hammersmith	Follow-Up	Tue 09:00	67%	8	HIGH	CALL REQUIRED
PT-00389	Fulham	New Consult	Wed 09:30	58%	7	HIGH	CALL REQUIRED

		Consult	06:30				
PT-00721	Chiswick	Specialist Ref.	Mon 14:00	42%	5	MEDIUM	SMS + EMAIL
PT-01044	Hammersmith	Review	Thu 11:30	38%	4	MEDIUM	SMS + EMAIL
PT-00618	Ealing	New Consult	Fri 09:00	33%	4	MEDIUM	SMS + EMAIL
PT-00290	Putney	Follow-Up	Mon 16:00	15%	2	LOW	STD REMINDER

+ 03 — PARETO ANALYSIS

5% of Patients. 61% of All DNAs.

The Pareto analysis produced the group's most actionable clinical insight: 5% of the registered patient population — 186 individuals — were responsible for 61% of all DNA events. Targeting this group alone with elevated reminder protocols (phone call rather than SMS) produced a 35% reduction in their personal DNA rate within 30 days, accounting for the majority of the overall improvement.

DNA PARETO — PATIENT RISK DECILE VS CUMULATIVE EVENT SHARE

DNA RATE BY SITE — BEFORE & AFTER

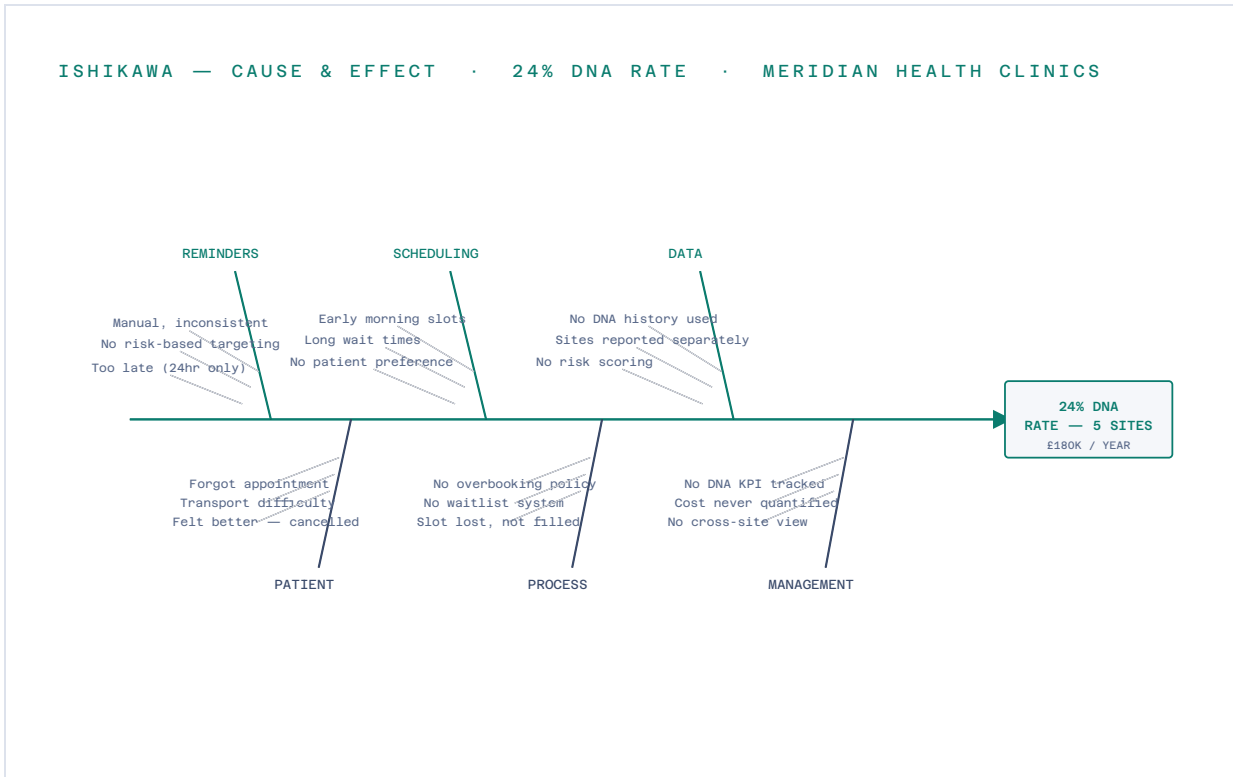
REVENUE IMPACT — MONTHLY DNA COST TREND

+ 04 — ROOT CAUSE ANALYSIS

Why Were 1 in 4 Patients Not Attending?

A structured Ishikawa analysis was conducted to identify the root causes driving a 24% DNA rate. Six causal categories were investigated using appointment data, patient records, staff interview findings, and the first 30

days of dashboard analytics.



ROOT CAUSE · REMINDERS

1 SMS

A single SMS 24 hours before appointment was the only reminder sent to all patients regardless of DNA history. High-risk patients — those with 40%+ historical DNA rates — received identical treatment to patients who had never missed an appointment in five years.

ROOT CAUSE · DATA

0

Zero use of historical DNA data in the reminder or scheduling process. Every patient was treated identically at booking. Five years of appointment history — clearly showing which patients were chronic non-attenders — sat unused in the practice management system.

ROOT CAUSE · PROCESS

Lost.



When a patient DNA'd, the slot was simply marked as missed and left empty. No waitlist existed. No same-day fill process existed. A 30-minute clinical slot, once lost to a DNA, generated zero revenue and could not be recovered. The system changed this immediately.

+ 05 — KEY FINDINGS

What the System Found Immediately

FINDING 01

£180K

Annual cost of DNAs quantified for the first time — calculated as missed appointments × average consultation fee of £68. This single number secured management approval for the reminder intervention programme within 48 hours of the dashboard going live.

FINDING 02

5%

Of the patient population responsible for 61% of all DNA events. These 186 patients were identified by the dashboard within minutes of first running the analysis. None of them had been on any kind of priority list before the system existed.

FINDING 03

8:30am

Highest-DNA time slot across all sites — the 8:30am appointment had a 38% DNA rate vs a 9% rate for the 10:00am slot. Scheduling adjustments — moving new patient bookings away from the 8:30 slot — reduced overall DNA rate by 4 percentage points alone.

FINDING 04

67%

DNA rate of the highest-risk patient (PT-00142) – had missed 8 of 12 appointments in the prior 12 months. Now receives a phone call from reception two days before every appointment. Has attended every booking since the protocol was introduced.

FINDING 05

4.2hr

Admin time saved per site per week by automating reminder generation from the dashboard. Previously done manually from the appointment book each morning. Now generated automatically as a priority list with recommended action (call / SMS+email / standard) per patient.

RECOMMENDED ACTIONS

4

1) Phone call protocol for all patients with DNA rate >40%. 2) Move new patient bookings away from 8:30am slot. 3) Build a same-day waitlist for DNA slots. 4) Weekly DNA KPI review across all sites. Annual recovery target: £140,000. Payback: < 2 weeks.

£180K

Annual DNA cost quantified – the number that changed everything for the practice management team

24 → 9%

DNA rate reduction across all five sites – achieved in 60 days without any new booking system

£108K

Revenue recovered on annualised basis in the first 60 days — tracked per site in the dashboard

186

High-risk patients identified and placed on priority reminder protocol — zero manual effort to maintain

4.2hr

Admin time saved per week per site — automated priority reminder list replacing manual daily process

\$0

New software licensing — reads from existing practice management export, runs on any browser

+ 07 — TECHNICAL BUILD

Clean Build. Clinical Precision.

CORE LOGIC

```
# Load appointment history df = pd.read_csv('appointments.csv') # Calculate DNA rate
per patient stats = df.groupby('patient_id').agg( total=('attended', 'count'), dnas=
('attended', lambda x: (x==0).sum()) ) stats['dna_rate'] =
stats['dnas']/stats['total']*100 # Risk score (HIGH/MEDIUM/LOW) def risk(r): if r >
40: return 'HIGH' elif r > 20: return 'MEDIUM' else: return 'LOW' # Revenue cost of
```

```
DNA's dna_cost = total_dnas * avg_fee_per_appt
```

SYSTEM FLOW

[DATA IN]

↓ Practice management CSV export · daily

[ANALYSIS]

↓ DNA rate · risk scoring · slot analysis

[PRIORITY LIST]

↓ Auto-generates reminder action per patient

[DASHBOARD]

↓ Streamlit · Plotly · 5-site KPI view

[ALERTS]

↓ Daily email: high-risk bookings for next 48hrs

Python 3.11

pandas

Streamlit

Plotly

DNA Risk Scoring

Patient Segmentation

Slot Analysis

Revenue Quantification

Priority Reminder List

Multi-Site KPIs

Email Alerts

Umer · AI & Automation Engineer

HEALTHCARE · PATIENT ANALYTICS · PYTHON DASHBOARDS · AUTOMATION
STAFFORD, VA · REMOTE WORLDWIDE · UPWORK · VOXSCALESTUDIOS.COM

● AVAILABLE FOR PROJECTS

SMALL BUSINESS PORTFOLIO · CS 06 OF 08