AWS Cost Estimation Formulas by Customer Type (with Examples)

These formulas estimate monthly AWS costs using simple, publicly estimable inputs.

Each section includes an explanation, input variables, the formula, and a real-world customer example.

1. Hospital / Clinic

Hospitals use AWS for EMR hosting, analytics, and storage. Epic/Cerner EMRs are often cloud-supported.

Inputs:

- bed_count: Number of licensed beds
- outpatient_visits_per_year: Annual patient volume
- emr_cloud: 1 if using cloud-based EMR
- innovation_center: 1 if AWS innovation partnership

Formula:

```
Total_Cost = (
    bed_count × $50
  + (outpatient_visits_per_year / 12) × $0.05
  + emr_cloud × $1,000
  + innovation_center × $5,000
)
```

Example: UC Davis Medical Center

```
bed_count = 651
outpatient_visits = 900,000
emr_cloud = 1
innovation_center = 1
651×50 + 75,000×0.05 + 1000 + 5000 = 32,550 + 3,750 + 1000 + 5000
```

=> Estimated Monthly AWS Cost: $42,300

2. Laboratory

Labs use AWS for test processing pipelines and archival storage.

Inputs:

- samples_per_year: Annual test volume
- test_type_factor: 0.5 (basic), 2.0 (genomic)
- long_term_storage: 1 if archival in Glacier/S3 IA

Formula:

```
Total_Cost = (
    samples × 0.0001 × $0.023
  + samples × test_type_factor × $0.001
  + long_term_storage × $500
)
```

Example: Melbourne Pathology

```
samples = 1,200,000
test_type_factor = 0.5
long_term_storage = 1
1.2M×0.0001×0.023 + 1.2M×0.5×0.001 + 500 = 2.76 + 600 + 500
```

=> Estimated Monthly AWS Cost: $1,102.76

3. Pharma / Distributor

Pharma companies use AWS for modeling, logistics, and ML training workloads.

Inputs:

- employees: Staff count

- r_and_d_sites: # of research/logistics facilities

- ml_use: 1 if ML used

Formula:

```
Total_Cost = (
    employees × $10
  + r_and_d_sites × $300
  + ml_use × $2,000
)
```

Example: INNOQUEST (GRIBBLES) - HQ

```
employees = 450
r_and_d_sites = 2
ml_use = 1
450×10 + 2×300 + 2000 = 4500 + 600 + 2000
```

=> Estimated Monthly AWS Cost: $7,100

4. Private Practice / Physician

Private clinics store billing, notes, and appointments on cloud EMRs and use light AWS resources.

Inputs:

- physicians: Number of doctors

- patients_per_month: Monthly patient volume

- cloud_ehr: 1 if EMR is cloud-based

Formula:

```
Total_Cost = (
    physicians × $20
  + patients_per_month × $0.02
  + cloud_ehr × $300
)
```

Example: Dr. Philadelphy Horst

```
physicians = 4
patients_per_month = 500
cloud_ehr = 1
4×20 + 500×0.02 + 300 = 80 + 10 + 300
```

=> Estimated Monthly AWS Cost: $390