

## 报告 18

医疗需求的波动缩放现象

### Variability Scaling in Healthcare Demands

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#### 报告摘要 Abstract

需求波动是影响全球医疗系统服务质素的重要因素。我们发现医疗需求在时间和空间维度上都展示出一种特殊的波动缩放现象。这些现象表明，常用的泊松模型在微观层面能够很好地刻画医疗需求，但在中观和宏观层面则可能出现较大的偏差。

Demand variability is a major source of uncertainty that affect performance of healthcare systems worldwide. We discover that healthcare demands exhibit a universal variability scaling law in both temporal and spatial dimensions. Our findings suggest that the widely used Poisson models may be appropriate in modeling demands on the microscopic level, but may be questionable on mesoscopic and macroscopic levels.