101 ways to use privacy-preserving computation in healthcare

Make the impossible possible

Privacy-Preserving Computation opens new doors for leveraging siloed, sensitive datasets in ways that were previously unattainable.

By enabling secure data pooling and real-time analytics that protects patient privacy and your IP, privacy-preserving computation creates unprecedented opportunities for data-driven insights and collaborations across the healthcare spectrum.

1

Healthcare Marketing Optimization

Optimize healthcare marketing strategies based on aggregated patient datasets.

2

Drug Discovery

Collaborative research between therapeutic development companies, organizations, and/or academic institutions without sharing proprietary data.

3

Clinical Trial Analysis

Analyze combined trial data from multiple sites without revealing site-specific data.

4

Genomic Research

Study combined genetic data from multiple sources without revealing individual genomes.

5

Treatment Efficacy Analysis

Evaluate the effectiveness of treatments across hospitals without sharing patient specifics.

6 **Cross-border Health Studies**

Conduct studies across countries without violating data residency regulations.

7 **Rare Disease Studies**

Analyze aggregated data from multiple sources for a specific rare disease or a group of related rare diseases without exposing sensitive information.

8 **Medical Imaging**

Collaboratively analyze medical images without sharing the actual images.

9 **Predictive Analytics for Outbreaks**

Predict disease outbreaks and/or patient outcomes using data from multiple sources without revealing the raw data.

10 **Hospital Benchmarking**

Compare performance metrics across hospitals without revealing individual hospital data.

11 **Cost Analysis**

Compare treatment costs across facilities without exposing specific billing data.

12 **Device Efficacy**

Evaluate the efficacy of medical devices using aggregated data without revealing specifics.

13 **Treatment Pathways Analysis**

Analyze and optimize patient treatment pathways using data from multiple hospitals.

14 **Supply Chain Optimization**

Manage hospital supply chains more efficiently without revealing purchase specifics.

15 **Public Health Decisions**

Inform public health policies using aggregated data without breaching privacy.

16 **Telemedicine Consultations**

Securely share patient data between providers of different clinical affiliations during remote consultations.

17 **Healthcare Fraud Detection**

Detect fraudulent claims without revealing genuine patient billing details.

18 **Personalized Treatment Plans**

Develop treatment plans based on aggregate patient data without compromising individual privacy.

19 **Mortality Rate Analysis**

Study mortality rates across facilities without revealing specifics.

20 **Post-Operative Outcome Analysis**

Analyze post-operative outcomes across surgeons or hospitals without compromising privacy.

21 **Pandemic Preparedness**

Collaboratively strategize for pandemics without revealing sensitive data.

22 **Mental Health Research**

Conduct studies on mental health using data from multiple sources without breaching confidentiality.

23 **Patient Mobility Studies**

Understand patient mobility (like ICU transfers) across departments or unaffiliated institutions without revealing individual data.

24 **Insurance Claim Analysis**

Analyze patient-linked insurance claims without revealing individual claim details.

25 **Drug Interaction Studies**

Study potential drug interactions using combined patient data without breaching privacy.

26 **Veterans Health Studies**

Analyze patient-level health data for veterans across unaffiliated organizations without exposing personal data.

27 **Environmental Health Studies**

Collaboratively study the impact of environmental factors on health using shared data sets without compromising proprietary intelligence.

28 **Health Worker Performance**

Evaluate the performance of health workers across facilities at the individual level without revealing personally identifiable information.

29 **Medical Education Research**

Collaborate on research in medical education without sharing student specifics.

30 **Medical Equipment Utilization**

Study the utilization rates of medical equipment across hospitals.

31 **Pediatric Health Studies**

Analyze child health data from various sources without violating privacy regulations.

32 **Disease Surveillance**

Track the spread of diseases without revealing specific patient data.

33 **Antibiotic Resistance Studies**

Collaboratively study antibiotic resistance patterns.

34 **Medical Tourism Analysis**

Analyze medical tourism trends without revealing patient specifics.

35 **Diet and Health Studies**

Collaborate on studies linking diet to health outcomes without sharing individual data.

36 **Rehabilitation Outcome Studies**

Evaluate outcomes for various rehabilitation methods without sharing patient data.

37 **Patient Satisfaction Surveys**

Aggregate and analyze patient satisfaction data without revealing specifics.

38 **Elderly Care Analysis**

Study the outcomes of various elderly care methods.

39 **Chronic Disease Management**

Collaborate on medically complex disease management strategies based on aggregated data.

40 **Emergency Response Planning**

Plan emergency responses based on collaborative data analysis.

41 **Organ Transplant Analysis**

Study the outcomes and efficiency of organ transplant procedures without revealing specifics.

42 **Medical Procedure Standardization**

Collaborate on creating standardized procedures based on combined data.

43 **Vaccination Campaign Analysis**

Evaluate the efficacy of vaccination campaigns without sharing individual data.

44 **Wearable Device Data Analysis**

Share and analyze user-specific data from wearable health devices without revealing individual user data.

45 **Opioid Use Studies**

Collaborate on studies analyzing opioid use without revealing patient specifics.

46 **Bioinformatics Collaborations**

Collaborative research in bioinformatics without sharing sensitive genomic data.

47 **Neonatal Care Studies**

Analyze the effectiveness of neonatal care methods across multiple facilities without revealing proprietary details.

48 **Radiation Therapy Analysis**

Evaluate the outcomes of radiation therapy treatments without revealing patient data.

49 **Healthcare Policy Evaluation**

Collaboratively evaluate the impact of different healthcare policies without sharing specific data.

50 **Reducing Hospital Acquired Infections**

Identify patterns and potential solutions for hospital-acquired infections without compromising patient data.

51 **Cross-Organization Doctor Performance**

Evaluate doctor performance across multiple facilities without revealing specific reviews or scores.

52 **Disease Hotspot Identification**

Identify areas where specific diseases are prevalent without revealing individual case data.

53 **Automated Health Check-ups**

Create automated health check-up algorithms that can run on encrypted data.

54 **Health Risk Assessments**

Conduct health risk assessments across diverse populations without exposing individual health records.

55 **Quality Metric Benchmarking**

Compare quality metrics like patient satisfaction across multiple facilities without de-identifying data or revealing specific data.

56 **Metal Health Service Efficacy**

Assess the efficacy of mental health services across multiple providers without revealing individual treatment data.

57 **Financial Risk Modeling**

Assess the financial risk of medical treatments across multiple providers without revealing patient billing data.

58 **Nutrition and Wellness Program Efficacy**

Measure the efficacy of nutrition and wellness programs across multiple facilities without revealing specific participation data.

59 **Therapy Outcome Analysis**

Analyze the outcomes of therapy methods without revealing patient-specific data.

60 **Pediatric Development Milestones**

Compare the efficacy of treatments and interventions in pediatric development without revealing individual child data.

61 **Patient Behavior Analysis**

Analyze patient behavior, like medication adherence, across multiple settings without revealing individual data.

62 **Cost-Effectiveness of Preventive Programs**

Assess the cost-effectiveness of preventive health programs across multiple facilities without revealing specific data.

63 **Clinical-Decision Support Efficacy**

Evaluate the efficacy of clinical decision support systems across multiple hospitals without revealing specific user interactions.

64 **Cross-Facility Operating Room Efficiency**

Compare the efficiency of operating rooms across multiple hospitals without revealing specific operational data.

65 **Nurse Schedule Optimization**

Optimize nurse scheduling across multiple facilities without revealing individual nurse schedules.

66 **Caregiver Support Efficacy**

Evaluate the efficacy of caregiver support programs without revealing specific participation data.

67 **Comparative Equipment Performance**

Compare the performance of medical equipment like MRIs across multiple facilities without revealing specific performance data.

68 **Resource Utilization in Elder Care**

Analyze resource utilization in elder care facilities without revealing specific patient or facility data.

69 **Dental Health Programs**

Assess the efficacy of dental health programs across multiple settings without revealing individual patient data.

70 **Accessibility of Specialized Services**

Analyze the accessibility of specialized medical services like cancer treatment across multiple facilities without revealing specific patient data.

71 **Language and Communication Barriers**

Study the impact of language and communication barriers on patient outcomes without revealing individual patient data.

72 **ER Triage Efficiency**

Analyze the efficiency of emergency room triage procedures without revealing specific patient or facility data.

73 **Analysis of Self-Service Platforms**

Evaluate the usage and efficacy of self-service health platforms without revealing specific user data.

74 **Family Planning Program Effectiveness**

Evaluate the effectiveness of family planning programs without revealing individual participation data.

75 **Comparative Ambulance Response Times**

Compare ambulance response times across multiple regions without revealing specific incident data.

76 **ICU Bed Utilization**

Study the utilization of ICU beds across multiple hospitals without revealing specific patient data.

77 **Palliative Care Effectiveness**

Evaluate the effectiveness of palliative care across multiple settings without revealing patient-specific data.

78 **Comparative Analysis of Telehealth Platforms**

Analyze user engagement and clinical outcomes across different telehealth platforms without revealing individual data.

79 **Comparative Efficacy of Medical Schools**

Compare the efficacy of medical schools based on the performance of their graduates in various healthcare settings.

80 **Ethical Allocation of Scarce Resources**

Study the ethical implications and effectiveness of algorithms used to allocate scarce resources like organ transplants or ICU beds.

81 **Gender Disparities in Healthcare**

Investigate gender disparities in healthcare outcomes without revealing individual patient data.

82 **Patient Flow Optimization**

Analyze patient flows within and between healthcare facilities for optimized resource utilization without revealing specific patient data.

83 **Comparative Analysis of Online Health Information**

Evaluate the accuracy and impact of online health information across different platforms without revealing user data.

84 **COVID-19 Vaccine Distribution**

Analyze the distribution and effectiveness of COVID-19 vaccines across different populations without revealing individual data.

85 **Real-World Drug Performance**

Analyze real-world drug performance (i.e. post market surveillance activities) across a wide array of healthcare settings without revealing individual patient data.

86 **Surgical Procedure Optimization**

Evaluate and optimize surgical procedures across multiple hospitals without revealing specific operational data.

87 **Long-Term Care Facility Treatment Assessment**

Analyze the efficacy of treatment and care in long-term care facilities without revealing specific patient or facility data.

88 **Home Care vs. Hospital Care**

Evaluate the efficacy of home care services in comparison to traditional hospital care without revealing specific patient data.

89 **Virtual Reality Therapies**

Assess the effectiveness of virtual reality therapies across multiple settings without revealing individual treatment data.

90 **Post-Discharge Follow-Up**

Evaluate the effectiveness of post-discharge follow-up actions without revealing individual patient data.

91 **Maternity Care Effectiveness**

Evaluate the effectiveness of different maternity care methods across multiple facilities.

92 **Assessment of Digital Therapeutics**

Evaluate the effectiveness of digital therapeutics across multiple platforms without revealing user-specific data.

93 **Drug Price Comparisons**

Compare drug prices across various facilities and geographical locations without revealing specific price contracts.

94 **Substance Abuse Treatment Efficacy**

Evaluate the efficacy of substance abuse treatment programs without revealing individual patient data.

95 **Evaluation of AI Diagnostics**

Evaluate the accuracy and usefulness of AI diagnostic tools across multiple settings without revealing individual patient data.

96 **Monitoring Antibiotic Stewardship**

Evaluate the effectiveness of antibiotic stewardship programs across multiple hospitals without revealing specific prescription data.

97 **Specialty Drug Efficacy**

Assess the clinical outcomes of specialty drugs (like those indicated for rare conditions) across multiple healthcare settings without revealing specific patient data.

98 **Preventing Medical Errors**

Analyze medical errors to find common causes and preventive measures without revealing specific incidents or facilities.

99 **Comparative Efficacy of Health Apps**

Evaluate the effectiveness of health and wellness apps without revealing specific user data.

100 **Quality of Life Assessments**

Analyze reported quality of life assessments for various treatments and conditions, across multiple healthcare settings, without revealing specific patient data.

101 **Medication Adherence**

valuate medication adherence rates across various demographic groups without revealing individual compliance data.

Curious how to make these 101 ways a reality?

Enroll in our course: Privacy-Preserving Computation in Healthcare.

Enroll Now

As leaders with direct experience in rare-diseases, healthcare administration, strategic planning, business development, marketing, and analytics, we designed this course to give you the tools and knowledge to unleash the true potential of your data and fuel new revenue streams.

Nadia Bodkin, PharmD, MS

Nadia spearheads RAM (Rare Advocacy Movement), focusing on the well-being of the rare disease community. Her initiatives are driven by a commitment to efficient, accurate diagnostics and the ethical use of patient data.

RAM
RARE ADVOCACY MOVEMENT

Kat Kuzmeskas, MPH

Kat is the founder of Tamarin Health, which aims to unlock inaccessible healthcare data with its scalable privacy-preserving computation platform, and she has spent two decades leveraging data for strategic growth across healthcare settings, including Yale New Haven Health.

tamarin

Elle Park, MMR

Elle founded Allspark Health, a computational insights company dedicated to innovative data partnerships and redefining the boundaries of what is possible in healthcare. Her mission is to pioneer sustainable, patient-centric collaborations for the mutual benefit of all parties in the healthcare ecosystem

Allspark

SCAN to ENROLL