



Christopher Sharp, MD

Clinical Professor, Medicine - Primary Care and Population Health

 Curriculum Vitae available Online

CLINICAL OFFICE (PRIMARY)

- **Stanford Internal Medicine**

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ACADEMIC CONTACT INFORMATION

- **Alternate Contact**

Care Coordinator, Stanford Medical Group

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Bio

CLINICAL FOCUS

- Medical Informatics
- Internal Medicine

ACADEMIC APPOINTMENTS

- Clinical Professor, Medicine - Primary Care and Population Health
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)

ADMINISTRATIVE APPOINTMENTS

- D&E Ground Medical Ward Director, Stanford University Medical Center, (2002-2006)
- Medical Director for Clinical Informatics, Stanford University Medical Center, (2006-2007)
- Associate Chief Medical Information Officer, Stanford University Medical Center, (2007-2013)
- Chair, Medical Staff HIM Committee, Stanford University Medical Center, (2009- present)
- Chief Medical Information Officer, Stanford University Medical Center, (2013- present)

HONORS AND AWARDS

- Award for Professionalism in a Member of the Medicine Housestaff, Stanford University Medical Center (2001)
- Charles Dorsey Armstrong Award for Excellence in Patient Care, Stanford University Medical Center (2001)
- Regional ACP-ASIM Clinical Vignette Poster Competition, 2nd Prize, American College of Physicians (2001)
- Stanford Internal Medicine Divisional Teaching Award, Stanford University Medical Center (2003)
- David A. Rytand Clinical Teaching Award, Stanford University Department of Medicine (2005)

PROFESSIONAL EDUCATION

- Medical Education: Dartmouth Geisel School of Medicine (1998) NH
- Residency: Stanford University School of Medicine (2001) CA

- Internship: Stanford University School of Medicine (1999) CA
- Board Certification: Clinical Informatics, American Board of Preventive Medicine (2014)
- Board Certification: Internal Medicine, American Board of Internal Medicine (2001)
- MD, Dartmouth Medical School , Medicine (1998)
- BA, Northwestern University , Bachelor of Arts in Music (1990)

COMMUNITY AND INTERNATIONAL WORK

- Arbor Free Clinic, Menlo Park, CA

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Clinical Informatics

Clinical Education

Teaching Physical Examination

Quality Improvement

Preventive Medicine

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Clinical Informatics (Fellowship Program)
- Medicine (Masters Program)

Publications

PUBLICATIONS

- **Patient perspectives on clinicians' use of ambient AI scribes.** *JAMIA open*
Shah, S. J., Murtagh, K. N., Char, D., Jeong, Y., Crowell, T., Smith, M., Ma, S. P., Liang, A. S., Mieso, B., Delahaie, C., Hsia, C., Waggoner, N., Shanafelt, et al
2026; 9 (3): ooag104
- **Optimizing Enterprise Referral Processing through Automated Fax Triage** *NEJM CATALYST INNOVATIONS IN CARE DELIVERY*
Mui, D., Tran, J. L. A., Onofre, S., Ramirez, S., Singh, V., Lago, A., Ng-Thow-Hing, J., Lavertu, A., Kaushal, A., Altman, R., Pallas, J., Boosi, S., Gohil, et al
2026; 7 (5)
- **Distance-stratified sociodemographic differences in telemedicine use in surgical oncology clinics at an academic medical center.** *NPJ digital medicine*
Parameswaran, V., Tsung, S., Zeng, Y. B., Miller, M., Pritchett, J., Demaerschalk, B. M., Rosengaus, L., Sharp, C., Lee, B., Shah, S.
2026
- **Nested order panels for adult primary care modestly improves ordering efficiency among high utilizers.** *JAMIA open*
Schechtman, A. D., Kling, S. M., Garvert, D. W., Lin, J. Y., Shanafelt, T., Winget, M., Sharp, C.
2026; 9 (1): ooaf161
- **Evaluating Large Language Models and Retrieval-Augmented Generation Enhancement for Delivering Guideline-Adherent Nutrition Information for Cardiovascular Disease Prevention: Cross-Sectional Study.** *Journal of medical Internet research*
Parameswaran, V., Bernard, J., Bernard, A., Deo, N., Tsung, S., Lyytinen, K., Sharp, C., Rodriguez, F., Maron, D. J., Dash, R.
2025; 27: e78625

- **Optimizing large language models for detecting symptoms of depression/anxiety in chronic diseases patient communications.** *NPJ digital medicine*
Kim, J., Ma, S. P., Chen, M. L., Galatzer-Levy, I. R., Torous, J., van Roessel, P. J., Sharp, C., Pfeffer, M. A., Rodriguez, C. I., Linos, E., Chen, J. H.
2025; 8 (1): 580
- **Clinician Perspectives on AI-Generated Drafts of Patient Test Result Explanations.** *JAMA network open*
Shah, S. J., Nair, A., Murtagh, K., Ma, S. P., Vogt, K., Clutter, D., Sheikh, L., Schmidt, H., Smith, M., Lakhotia, A., Bullock, L., Bhasin, A., Pfeffer, et al
2025; 8 (8): e2528794
- **ASO Visual Abstract: Telemedicine Trends in Ambulatory Surgical Oncology-A Five-Year Analysis of Visit Volume and Utilization at a High-Volume Academic Center.** *Annals of surgical oncology*
Parameswaran, V., Miller, M., Pritchett, J., Demaerschalk, B., Hu, Y., Tsung, S., Zeng, Y. B., Rosengaus, L., Sharp, C., Lee, B., Shah, S.
2025
- **Telemedicine Trends in Ambulatory Surgical Oncology: A Five-Year Analysis of Visit Volume and Utilization at a High-Volume Academic Center.** *Annals of surgical oncology*
Parameswaran, V., Miller, M., Pritchett, J., Demaerschalk, B., Hu, Y., Tsung, S., Zeng, Y. B., Rosengaus, L., Sharp, C., Lee, B., Shah, S.
2025
- **Comparing trends in telehealth utilization by medical oncology practices at Stanford Medicine and Mayo Clinic from 2019-2023.**
Parameswaran, V., Miller, M., Grimm, J., Gullerud, R., Fan, W., Gibbons, D., Oyarzabal, B., Lunde, J., Coffey, J., Harper, S., Rosengaus, L., Sharp, C., Shah, et al
LIPPINCOTT WILLIAMS & WILKINS.2025: e13890
- **Impact of telemedicine on access to care in surgical oncology clinics: Distance and time to visit analysis for new patients at a multispecialty cancer center.**
Parameswaran, V., Tsung, S., Zeng, Y., Miller, M., Pritchett, J. C., Demaerschalk, B., Rosengaus, L., Sharp, C., Lee, B., Shah, S.
LIPPINCOTT WILLIAMS & WILKINS.2025: e23345
- **A sociotechnical approach to defining clinical responsibilities for patient-generated health data.** *NPJ digital medicine*
Griffin, A. C., Moyer, M. F., Anoshiravani, A., Hornsey, S., Sharp, C. D.
2025; 8 (1): 270
- **AI in Health Care: The Leadership Role of Board-Certified Clinical Informaticists.** *Applied clinical informatics*
Morse, K. E., Pageler, N. M., Shah, N. H., Townsend, T., Sharp, C., Pfeffer, M. A.
2025; 16 (3): 612-613
- **Integrating a High Blood Pressure Advisory Across a Primary Care Network.** *JAMA network open*
Phadke, A., Weng, Y., Johnson, C. B., Winget, M., Mahoney, M., Sharp, C., Sattler, A., Shah, S., Desai, M., Ng, S., Shaw, J. G.
2025; 8 (4): e257313
- **Physician Perspectives on Ambient AI Scribes.** *JAMA network open*
Shah, S. J., Crowell, T., Jeong, Y., Devon-Sand, A., Smith, M., Yang, B., Ma, S. P., Liang, A. S., Delahaie, C., Hsia, C., Shanafelt, T., Pfeffer, M. A., Sharp, et al
2025; 8 (3): e251904
- **Ambient artificial intelligence scribes: utilization and impact on documentation time.** *Journal of the American Medical Informatics Association : JAMIA*
Ma, S. P., Liang, A. S., Shah, S. J., Smith, M., Jeong, Y., Devon-Sand, A., Crowell, T., Delahaie, C., Hsia, C., Lin, S., Shanafelt, T., Pfeffer, M. A., Sharp, et al
2024
- **Ambient artificial intelligence scribes: physician burnout and perspectives on usability and documentation burden.** *Journal of the American Medical Informatics Association : JAMIA*
Shah, S. J., Devon-Sand, A., Ma, S. P., Jeong, Y., Crowell, T., Smith, M., Liang, A. S., Delahaie, C., Hsia, C., Shanafelt, T., Pfeffer, M. A., Sharp, C., Lin, et al
2024
- **"Covering provider": an effort to streamline clinical communication chaos.** *JAMIA open*
Joshi, M., Gokhale, A., Ma, S., Pendrey, A., Wozniak, L., Moturu, A., Schwartz, N. U., Wilson, A., Darmawan, K., Phillips, B., Cullum, S., Sharp, C., Brown, et al

2024; 7 (3): ooae057

- **Perspectives on Artificial Intelligence-Generated Responses to Patient Messages.** *JAMA network open*
Kim, J., Chen, M. L., Rezaei, S. J., Liang, A. S., Seav, S. M., Onyeka, S., Lee, J. J., Vedak, S. C., Mui, D., Lal, R. A., Pfeffer, M. A., Sharp, C., Pageler, et al
2024; 7 (10): e2438535
- **Standing on FURM Ground: A Framework for Evaluating Fair, Useful, and Reliable AI Models in Health Care Systems** *NEJM CATALYST INNOVATIONS IN CARE DELIVERY*
Callahan, A., McElfresh, D., Banda, J. M., Bunney, G., Char, D., Chen, J., Corbin, C. K., Dash, D., Downing, N. L., Jain, S. S., Kotecha, N., Masterson, J., Mello, et al
2024; 5 (10)
- **Effect of an Electronic Health Record-Based Intervention on Documentation Practices.** *Applied clinical informatics*
Shah, S., Bedgood, M., Devon-Sand, A., Dolphin-Dempsey, C., Cherukuri, V., Weng, K., Lin, S., Sharp, C.
2024
- **AI-Generated Draft Replies Integrated Into Health Records and Physicians' Electronic Communication.** *JAMA network open*
Tai-Seale, M., Baxter, S. L., Vaida, F., Walker, A., Sitapati, A. M., Osborne, C., Diaz, J., Desai, N., Webb, S., Polston, G., Helsten, T., Gross, E., Thackaberry, et al
2024; 7 (4): e246565
- **MedAlign: A Clinician-Generated Dataset for Instruction Following with Electronic Medical Records.** *Proceedings of the ... AAAI Conference on Artificial Intelligence. AAAI Conference on Artificial Intelligence*
Fleming, S. L., Lozano, A., Haberkorn, W. J., Jindal, J. A., Reis, E., Thapa, R., Blankemeier, L., Genkins, J. Z., Steinberg, E., Nayak, A., Patel, B., Chiang, C. C., Callahan, et al
2024; 38 (20): 22021-22030
- **Artificial Intelligence-Generated Draft Replies to Patient Inbox Messages.** *JAMA network open*
Garcia, P., Ma, S. P., Shah, S., Smith, M., Jeong, Y., Devon-Sand, A., Tai-Seale, M., Takazawa, K., Clutter, D., Vogt, K., Lugtu, C., Rojo, M., Lin, et al
2024; 7 (3): e243201
- **MEDALIGN: A Clinician-Generated Dataset for Instruction Following with Electronic Medical Records**
Fleming, S. L., Lozano, A., Haberkorn, W. J., Jindal, J. A., Reis, E., Thapa, R., Blankemeier, L., Genkins, J. Z., Steinberg, E., Nayak, A., Patel, B., Chiang, C., Callahan, et al
edited by Wooldridge, M., Dy, J., Natarajan, S.
ASSOC ADVANCEMENT ARTIFICIAL INTELLIGENCE.2024: 22021-22030
- **Drivers of telemedicine in primary care clinics at a large academic medical centre.** *Journal of telemedicine and telecare*
Parameswaran, V., Koos, H., Kalwani, N., Qureshi, L., Rosengaus, L., Dash, R., Scheinker, D., Rodriguez, F., Johnson, C. B., Stange, K., Aron, D., Lyytinen, K., Sharp, et al
2023: 1357633X231219311
- **Perspectives on the Intersection of Electronic Health Records and Health Care Team Communication, Function, and Well-being.** *JAMA network open*
Amano, A., Brown-Johnson, C. G., Winget, M., Sinha, A., Shah, S., Sinsky, C. A., Sharp, C., Shanafelt, T., Skeff, K.
2023; 6 (5): e2313178
- **Drivers of Visit Modality in Primary Care Clinics at an Academic Medical Center**
Parameswaran, V., Koos, H., Bajra, R., Kalwani, E. M., Qureshi, L., Rosengaus, L., Scheinker, D., Cola, P., Dash, R., Stange, K., Lyytinen, K., Sharp, C.
LIPPINCOTT WILLIAMS & WILKINS.2023
- **The impact of expanded telehealth availability on primary care utilization.** *NPJ digital medicine*
Dixit, R. A., Ratwani, R. M., Bishop, J. A., Schulman, K., Sharp, C., Palakanis, K., Booker, E.
2022; 5 (1): 141
- **Interruptive Electronic Alerts for Choosing Wisely Recommendations: A Cluster Randomized Controlled Trial.** *Journal of the American Medical Informatics Association : JAMIA*
Ho, V. T., Aikens, R. C., Tso, G., Heidenreich, P. A., Sharp, C., Asch, S. M., Chen, J. H., Shah, N. K.
2022

- **Assessing the impact of the COVID-19 pandemic on clinician ambulatory electronic health record use (vol 29, pg 453, 2022) JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION**
Holmgren, A., Downing, N., Tang, M., Sharp, C., Longhurst, C., Huckman, R. S.
2022; 29 (4): 749
- **Using AI to Empower Collaborative Team Workflows: Two Implementations for Advance Care Planning and Care Escalation NEJM Catalyst Innovations in Care Delivery**
Li, R., Smith, M., Lu, J., Avati, A., Wang, S., Teuteberg, W., Shum, K., Hong, G., Seevaratnam, B., Westphal, J., Dougherty, M., Rao, P., Asch, et al
2022; 3 (4)
- **Assessing the impact of the COVID-19 pandemic on clinician ambulatory electronic health record use. Journal of the American Medical Informatics Association : JAMIA**
Holmgren, A. J., Downing, N. L., Tang, M., Sharp, C., Longhurst, C., Huckman, R. S.
2021
- **Novel Nonproprietary Measures of Ambulatory Electronic Health Record Use Associated with Physician Work Exhaustion. Applied clinical informatics**
Sinha, A., Shanafelt, T. D., Trockel, M., Wang, H., Sharp, C.
2021; 12 (3): 637-646
- **Distress Screening Through Patient-Reported Outcomes Measurement Information System (PROMIS) at an Academic Cancer Center and Network Site: Implementation of a Hybrid Model. JCO oncology practice**
Neal, J. W., Roy, M. n., Bugos, K. n., Sharp, C. n., Galatin, P. S., Falconer, P. n., Rosenthal, E. L., Blayney, D. W., Modaressi, S. n., Robinson, A. n., Ramchandran, K. n.
2021: OP2000473
- **Effect of electronic clinical decision support on inappropriate prescriptions in older adults. Journal of the American Geriatrics Society**
Singhal, S., Krishnamurthy, A., Wang, B., Weng, Y., Sharp, C., Shah, N., Ahuja, N., Hosamani, P., Periyakoil, V. S., Hom, J.
2021
- **Using a Real-Time Locating System to Evaluate the Impact of Telemedicine in an Emergency Department During COVID-19: Observational Study. Journal of medical Internet research**
Patel, B., Vilendrer, S., Kling, S. M., Brown, I., Ribeira, R., Eisenberg, M., Sharp, C.
2021
- **Physicians Leading Physicians: A Physician Engagement Intervention Decreases Inappropriate Use of IICU Level of Care Accommodations. American journal of medical quality : the official journal of the American College of Medical Quality**
Ruiz Colón, G. n., Yang, J. n., Svec, D. n., Heidenreich, P. n., Britt, P. n., Smith, M. n., Sharp, C. n., Shieh, L. n.
2021
- **Assessment of Electronic Health Record Use Between US and Non-US Health Systems. JAMA internal medicine**
Holmgren, A. J., Downing, N. L., Bates, D. W., Shanafelt, T. D., Milstein, A., Sharp, C. D., Cutler, D. M., Huckman, R. S., Schulman, K. A.
2020
- **Rapid Deployment of Inpatient Telemedicine In Response to COVID-19 Across Three Health Systems (vol 27, pg 1102, 2020) JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION**
Vilendrer, S., Patel, B., Chadwick, W., Hwa, M., Asch, S., Pageler, N., Ramdeo, R., Saliba-Gustafsson, E. A., Strong, P., Sharp, C.
2020; 27 (11): 1830
- **"MAKING A LIST AND CHECKING IT TWICE": A HIGH BLOOD PRESSURE ADVISORY IN PRIMARY CARE**
Phadke, A., Sattler, A., Shah, S., Mahoney, M., Sharp, C., Ng, S., Kim, M., Weng, Y. I., Safaeinili, N., Brown-Johnson, C., Desai, M.
SPRINGER.2020: S702
- **IT TAKES A VILLAGE: COMPARATIVE ANALYSIS OF STRATEGIES TO IMPROVE PROVIDER ENGAGEMENT FOR WEIGHT MANAGEMENT AT AN ACADEMIC MEDICAL CENTER**
Shah, S., Lu, C., Tsai, S. A., Reisenberg, A., Calugar, A., Filipowicz, H., Sharp, C., Phadke, A.
SPRINGER.2020: S667-S668
- **Distress screening through PROMIS at an academic cancer center and network site: Implementation of a hybrid model.**
Roy, M., Neal, J. W., Bugos, K., Sharp, C., Falconer, P., Rosenthal, E., Blayney, D. W., Modaressi, S., Robinson, A., Ramchandran, K.
AMER SOC CLINICAL ONCOLOGY.2020

- **Metrics for assessing physician activity using electronic health record log data.** *Journal of the American Medical Informatics Association : JAMIA*
Sinsky, C. A., Rule, A., Cohen, G., Arndt, B. G., Shanafelt, T. D., Sharp, C. D., Baxter, S. L., Tai-Seale, M., Yan, S., Chen, Y., Adler-Milstein, J., Hribar, M.
2020
- **E-HeaRT BPA: electronic health record telemetry BPA.** *Postgraduate medical journal*
Chin, K. K., Svec, D. n., Leung, B. n., Sharp, C. n., Shieh, L. n.
2020
- **Five Takeaways Digital Health System Leaders Learned through Covid-19 Response Efforts** *NEJM Catalyst*
Haas, L., Sharp, C. D.
2020
- **Rapid Deployment of Inpatient Telemedicine In Response to COVID-19 Across Three Health Systems.** *Journal of the American Medical Informatics Association : JAMIA*
Vilendrer, S. n., Patel, B. n., Chadwick, W. n., Hwa, M. n., Asch, S. n., Pageler, N. n., Ramdeo, R. n., Saliba-Gustafsson, E. A., Strong, P. n., Sharp, C. n.
2020
- **Resident Presentation Effects of EMR-Based Advisories on Benzodiazepine and Sedative-Hypnotic Prescriptions in Older Adults**
Krishnamurthy, A., Singhal, S., Wang, B., Weng, Y., Sharp, C., Shah, N., Ahuja, N., Hosamani, P., Periyakoil, V., Hom, J.
WILEY.2019: S284
- **Technology-Enabled Consumer Engagement: Promising Practices At Four Health Care Delivery Organizations.** *Health affairs (Project Hope)*
Tai-Seale, M., Downing, N. L., Jones, V. G., Milani, R. V., Zhao, B., Clay, B., Sharp, C. D., Chan, A. S., Longhurst, C. A.
2019; 38 (3): 383–90
- **Effect of Electronic Clinical Decision Support on 25(OH) Vitamin D Testing.** *Journal of general internal medicine*
Chin, K. K., Hom, J. n., Tan, M. n., Sharp, C. n., Wang, S. n., Chen, Y. R., Chen, D. n.
2019
- **Effect of Electronic Clinical Decision Support on Imaging for the Evaluation of Acute Low Back Pain in the Ambulatory Care Setting.** *World neurosurgery*
Chen, D. n., Bhambhani, H. P., Hom, J. n., Mahoney, M. n., Wintermark, M. n., Sharp, C. n., Ratliff, J. n., Chen, Y. R.
2019
- **When order sets do not align with clinician workflow: assessing practice patterns in the electronic health record.** *BMJ quality & safety*
Li, R. C., Wang, J. K., Sharp, C. n., Chen, J. H.
2019
- **Implementation and evaluation of Stanford Health Care store-and-forward teledermatology consultation workflow built within an existing electronic health record system.** *Journal of telemedicine and telecare*
Kim, G. E., Afanasiev, O. K., O'Dell, C., Sharp, C., Ko, J. M.
2018: 1357633X18799805
- **Health information exchange policies of 11 diverse health systems and the associated impact on volume of exchange.** *Journal of the American Medical Informatics Association*
Downing, N. L., Adler-Milstein, J., Palma, J. P., Lane, S., Eisenberg, M., Sharp, C., Longhurst, C. A.
2017; 24 (1): 113-122
- **Novel Metrics for Improving Professional Fulfillment.** *Annals of internal medicine*
DiAngi, Y. T., Lee, T. C., Sinsky, C. A., Bohman, B. D., Sharp, C. D.
2017; 167 (10): 740–41
- **Electronic Release of Pathology and Radiology Results to Patients: Opinions and Experiences of Oncologists.** *Journal of oncology practice / American Society of Clinical Oncology*
Winget, M., Haji-Sheikhi, F., Brown-Johnson, C., Rosenthal, E. L., Sharp, C., Buyyounouski, M. K., Asch, S. M.
2016; 12 (8): e792-9
- **Oncologists' opinions and experiences with electronic release of radiology and pathology results to patients.**

Winget, M., Sheikhi, F., Rosenthal, E., Sharp, C., Buyyounouski, M. K., Asch, S.
AMER SOC CLINICAL ONCOLOGY.2016

- **A User-Centered Design Approach to Information Sharing for Older Patients and Their Families.** *JAMA internal medicine*
Nath, P. A., Sharp, C. D.
2015; 175 (9): 1498-1499
- **An Exponential Increase in Regional Health Information Exchange With Collaborative Policies and Technologies.** *Studies in health technology and informatics*
Downing, N. L., Lane, S., Eisenberg, M., Sharp, C., Palma, J., Longhurst, C.
2015; 216: 931-?
- **An Exponential Increase in Regional Health Information Exchange With Collaborative Policies and Technologies**
Downing, N., Lane, S., Eisenberg, M., Sharp, C., Palma, J., Longhurst, C., Northern Calif HIE Working Grp
edited by Sarkar, I. N., Georgiou, A., Marques, P. M.
IOS PRESS.2015: 931
- **The electronic health record as a healthcare management strategy and implications for obstetrics and gynecologic practice.** *Current opinion in obstetrics & gynecology*
Eisenberg, M., Hom, J., Sharp, C.
2013; 25 (6): 476-481