DEB2025+: A Strategic Plan for 2025 and Beyond

UCSF Department of Epidemiology and Biostatistics

Introduction and Process

The UCSF Department of Epidemiology and Biostatistics (DEB) occupies a unique and critically important niche at UCSF: We are experts in the methods of health research involving humans. We develop methods, teach them to students, help colleagues as methods experts on multidisciplinary teams, and lead high-impact and innovative research. While challenges abound in our soft money environment, there are also emerging opportunities driven by new technology, new data, and new thorny problems to solve where we have critical expertise to contribute. Rigorous research using the best available methods is needed now more than ever.

To address these challenges and opportunities, we launched DEB2025+, a strategic planning exercise meant to elicit the best ideas and wisdom from our department and colleagues and to distill them into a set of strategies that will guide decision-making and resource allocation by the Chair and Executive Committee. We used an Appreciative Inquiry approach to "define, discover, dream, and design" our plan. We started with department-wide open-ended discussions online, by Zoom, and in-person, and then charged a set of working groups to tackle the most important ideas arising from those discussions. Recommendations from the Working Groups were then synthesized and distilled into a set of strategies. Below, we describe our mission, values, and priorities (the starting point for our planning process), the metrics by which we will measure our success, and our strategic plan for improving those metrics over the next five years.

Mission, Values, and Chair's Strategic Priorities

UCSF's mission is "Advancing Health Worldwide" and embraces a set of "PRIDE values" that include Professionalism, Respect, Integrity, Diversity, and Excellence. The mission and values statements below harmonize with UCSF's overall stated mission and values, with additional specificity relevant to our department's core areas of expertise and the values expressed by the faculty, staff, and students. The strategic priorities came from the Chair.

<u>Mission</u>: Advancing health worldwide through developing, teaching, and applying the methods of epidemiology and biostatistics

<u>Values</u>: Health equity, transparency, and UCSF PRIDE values (Professionalism, Respect, Integrity, Diversity, and Excellence)

<u>Chair's Strategic Priorities</u>: The Chair expressed the following general strategic priorities as a starting point for strategic planning:

- 1. Happy and productive people
- 2. Teaching research methods
- 3. Improving population health and health equity

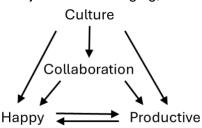
Metrics of Success

We will design and administer an annual survey to evaluate the perceived success and personal impact of the department's strategic initiatives and to check in on the well-being of faculty and staff. We will also analyze retention and the proportion of faculty and staff who remain fully funded at their desired level of effort. To assess the success of our teaching mission, we will track the number of students enrolled and completing our programs, teaching evaluations, the satisfaction of our students and teachers with their experiences in our education programs, and post-graduation outcomes (e.g., employment % & job relevance, grants awarded, publications). To assess the success of our research mission, we will track standard research metrics (funding and publications) and seek evidence of population-level improvement in health and health equity metrics resulting from our efforts. Process metrics for each tactic are listed below.

Strategy #1: Invest in DEB Culture & Collaboration

Promoting happiness and productivity at work is a top priority for the department. Our jobs are challenging,

and the soft money environment within which we work is inherently stressful. Two upstream factors are at least partially modifiable via departmental policy and investment of resources: DEB culture and collaboration. The department believes that coordinated efforts to enhance culture will provide opportunities for positive social interactions, foster collaboration and cross-disciplinary innovation, enhance productivity, reduce burnout, and improve job satisfaction and happiness at work.



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| Tactic | | Process |
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| | | metrics |
| Establish a DEB Culture and Collaboration Committee | improve culture and collaboration in DEB. The department will allocate a budget to support in-person activities. | Committee launched; budget allocated |
| Continue monthly DEB Days | including short announcements, "quick hit" talks, lunch, and a seminar or discussion session. We will continue these sessions on approximately a monthly basis. We will experiment with new features, e.g., supporting Zoom/hybrid participation, | # DEB Days hosted (Goal=10/yr); Attendance at DEB Day in person & by Zoom |
| "Tuesdays + 1" goal for in-person work at Mission Hall | from home. Without a critical mass of people at Mission Hall, the value of coming to work in person is diminished. Our goal will be for most DEB faculty and staff to work at Mission Hall on | for DEB suite (counts/day, not |
| Plan more in-person events | working in-person, including but not limited to writing retreats, work-in-progress seminars, student research days, coffee clubs and happy hours, walk and chat groups, fireside chats, volunteer/service days, etc. | # events (overall and by type); Attendance at events; Satisfaction with events |
| Swag! | branding to foster belonging and pride in our department. The Culture and Collaboration Committee will consider what to purchase within their budget and what to design for purchase | Availability of swag for purchase; # items purchased |

| staff engagement, workload, and well-being and supervisor-specific content, promote mentorship, educate staff about employment tracks and avenues for advancement, use individual development plans, and encourage networking | Meetings hosted; Attendance at meetings; staff DPs; Gallup survey results |
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Strategy #2: Enhance Communications

Communicating about our outstanding work in DEB is critical to our mission. We must disseminate our research findings for impact; we must attract students to our educational programs; and we can enhance our reputation, and thus our opportunities for collaboration and funding, by highlighting our successes and promoting our ideas and vision.

Our previous investments in communications have been relatively small. We share a Communications Team with the Institute for Global Health Sciences. Our current active communication channels include our newsletter, website, social media, and seminar series. We collaborate with other entities on campus to get the word out about news, programs and events. We use paid advertising sparingly (primarily to enhance enrollment in education programs), and our social media presence is small. DEB2025+, including a survey conducted by the Communications Working Group, has revealed substantial interest and ideas from faculty, staff and students for better communication, which are reflected in the tactics described below.

| Tactic | Description | Process metrics |
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| Establish a DEB Communications Advisory Group | | Advisory group launched |
| Use DEB2025+ (this strategic plan) as a communication hook | The launch of this strategic plan presents an opportunity to talk about our department, our strengths and priorities, and our vision for the future, and we can use it to enhance our profile and garner support. | Plan published on DEB website; DEB2025+ talks delivered |
| Redesign and update our department website | Our current website needs to be updated from Drupal 7 to Drupal 10. We will invest in a redesign of the website, starting with Education Program pages (see below), and then including the rest of the website, with the goal of promoting news articles about our high impact work, helping people find and learn about our programs and people. Our website should effectively highlight our people, and areas of focus for our department, e.g. research education, AI, and population health. | Website redesign completed; Visits, clicks, other web analytics; Faculty and staff satisfaction with new website |
| Make incremental improvements to DEB Day, our Newsletter, and our Seminars | experiment with different approaches to hybrid meetings and seminars; producing short videos in addition to written articles; creating a poster wall with visual abstracts to highlight DEB work; setting the schedule for DEB Day and seminars 6 months in advance; featuring staff, students, and teams and not just individual faculty; rotating responsibilities for designing and | Attendance at events; Novel communication approaches launched and tested; Newsletter analytics |
| Develop and launch a strategy for engaging potential donors | donors (including but not limited to our own alumni), and invest strategic funds to test whether that strategy might have | Strategy launched; Donor list developed; Pitches; \$'s received from donors |

Strategy #3: Sustainably Grow Our Education Program

Teaching research methods is a core mission of the department. We teach a broad range of learners from medical students to PhD students, working public health professionals, and clinical faculty interested in conducting research, and a broad range of subjects including but not limited to epidemiology, biostatistics, data science, implementation science, and clinical informatics. Our education program collects income from tuition and covers most program expenses, including administrative costs, teaching faculty salaries, and stipends. We depend on the teaching efforts of many people within and outside the department.

Opportunities exist for improvement and expansion, many of which will require upfront investments from the Education Program and/or Department. These investments should aim to increase our impact (more students with more educational opportunities and increasing quality) and/or provide benefits to our people (e.g., more satisfying jobs for staff and more paid teaching opportunities for faculty) while maintaining the expectation of future sustainability within the Education Program budget.

| Tactic | Description | Process metrics |
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| Analyze opportunities for expansion or redesign | We will invest in market research to assess interest in workshops, short courses, online offerings, new degree programs (or redesigning/retitling existing programs) including joint degree programs, and analyze expected financial implications of expanding where there appear to be market opportunities. | Analysis completed |
| Conduct a formal review of our curricula across programs | While individual programs review their own curricula regularly, there is a need for a cross-program curricula review for overlap, consistency, completeness, opportunities for growth and online augmentation, and content areas where improvement and/or expansion are identified. This review will be conducted in conjunction with the market analysis described above. In areas where development of new courses may be warranted (e.g., Al), conduct an analysis of the current landscape at UCSF (along with competing programs external to UCSF) to minimize redundancy and ensure coordination where possible. | Completion of review; Structured data collected for each course |
| Experiment with workshops and short courses | We will select a handful of faculty members interested in teaching a workshop or a short course topic of interest, and support them in developing, advertising, and producing the session. If successful, we will work towards a standard format and platform that will reduce costs, improve quality, and reinforce our department's brand. | New workshops and short courses launched; Attendance; ROI\$ |

| Optimize enrollment in our revenue-generating programs and activities | and learners, further our diversity goals, and capture economies of scale to strengthen our financial position, it is | Establish target enrollment by program/activity; % of target enrolled |
|---|---|---|
| Plan for student heterogeneity | including students coming from disadvantaged backgrounds, and will dedicate resources to support students who find our courses more challenging (e.g., tutors, self-pace learning, resources, more office hours). | Satisfaction of students and faculty; Retention; timely degree progression |
| Develop an online education approach and consider investing in formal online certificate or degree programs | offerings, but emphasizing online teaching could reduce in- person student enrollment or detract from the educational experience for in-person learners. We will explore an approach that supports both modes of learning. For example, our Education Program may experiment with developing an "online track" for existing courses with dedicated materials and resources (e.g., carefully designed asynchronous activities) and dedicated leadership (e.g., an Assistant Course Director responsible for the online track) that can leverage existing courses and support high quality educational experiences for online students without detracting from the experience of in- person students. We will develop a plan that will inform whether | Development of a written strategy for expanding online educational offerings; Formal decision regarding whether to pursue a new degree or certificate program |
| Formalize a partnership with DoC-IT to build out our Clinical Informatics Track | (DoC-IT) has faculty with deep expertise in clinical informatics and houses UCSF's Clinical Informatics Fellowship. We will collaborate with DoC-IT to invest in formal courses (including AI-related courses, see below) to flesh out our Clinical Informatics Track within TICR. We will not pursue a new masters or certificate program at this time, but will re-evaluate in the future. | MOU signed; New courses developed and launched; Students enrolled in the new courses and track; \$ income |

| value and understand other approaches to sustainability | and invest in the doctoral training. However, the current funds flow model limits the dept's ability to provide optimal support on an ongoing basis. We will undertake a formal study of the Program, with the goals of (1) documenting value of the PhD | Completed analysis of value and options; Implementation of new options; PhD budget \$'s, from DEB Core and from Education Program |
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| hiring in key areas to support succession planning and new | disciplines (e.g., clinical epidemiology). New or expanded | Succession planning completed with gaps identified; New faculty hires or joint appointments |

Strategy #4: Use Artificial Intelligence to Pursue Our Mission

Recent advances in artificial intelligence (AI) technology, especially large language model/generative AI, present major new opportunities for research, education, and healthcare delivery. DEB can uniquely contribute to the effective use of this technology. Our faculty specializes in the computational methods used to train and utilize AI models, the implementation science methods needed to harness AI for real-world utility, the study designs and methods required for monitoring and evaluating the effects of AI implementation, and the necessary social frameworks for helping understand and optimize how AI impacts population health and health equity. UCSF is investing broadly in AI, and many other entities on campus hold expertise that overlaps and/or complements our own. DEB should leverage UCSF's investments, collaborate with partners, develop and promote our own expertise in AI, and use AI to accomplish our strategic priorities.

| Tactic | Description | Process metrics |
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| Help establish an Al Guild at UCSF | DEB is participating along with the Bakar Computational Health Sciences Institute (BCHSI), Division of Clinical Informatics and Digital Transformation (DoC-IT), Chief Research Informatics Officer (CRIO), Clinical and Translational Sciences Institute (CTSI), and other entities on campus in forming a Guild to collaborate and coordinate AI-related efforts at UCSF. We will designate at least one "AI Lead" to participate actively in the Guild as a DEB representative, contribute ideas and resources, ensure our interests and priorities are represented, and look for ways to collaborate on funding applications with colleagues in these other like-minded groups. | Appoint an AI Lead for the department; Track Guild activities and products to which DEB contributes |
| Host or co-host Al- related seminars and events | UCSF needs a robust AI seminar series. Building on the existing virtual UCSF AI seminar series, we are positioned to help lead the expansion of this series in collaboration with AI Guild partners. We should also consider hosting an "AI Research Day" conference to showcase early-stage work by our faculty, staff and students, and provide opportunities for networking. | # of Al-related seminars and events; Attendance at each seminar |
| Train faculty and staff in use of new Al tools | New generative AI tools will continue to transform how we do our work. We must develop an approach to training our faculty and staff in how, practically speaking, to use these tools so we can optimize productivity, maintain our competitive advantage, and understand emerging opportunities while ensuring awareness of the pitfalls and potential for perpetuating bias. Existing resources (at UCSF and external) may already be available and sufficient, and should be reviewed prior to developing our own educational offerings. | Choose (or develop) a training mechanism; # of faculty and staff who complete training |
| Survey the AI education landscape at UCSF and develop new offerings as needed | Survey the Al-related educational landscape at UCSF and evaluate current gaps and opportunities for synergy and coordination with other units (e.g., Bakar Computational Health Sciences Institute or Library). We currently have plans for an Al course in our Clinical Informatics track (Epi 233); assess whether we should develop new courses (or workshops or short courses) to meet the needs of our students and help train the wider community on the relevant methods. | Landscaping completed; New courses and workshops developed; Enrollment |

| Strengthen expertise on use of AI to educate and evaluate our students | Al will have a profound impact on how we deliver educational content and how we evaluate our students. We must take a proactive approach to incorporating useful Al-based approaches to education, and mitigating the potential challenges that availability of generative Al may pose to how we help our trainees develop skills (e.g., writing skills) and how we evaluate their knowledge (e.g., assigning problem sets that could easily be completed using generative Al). To address these issues, we need to develop advanced expertise about Al in education, and a strategy to apply that expertise to our educational offerings. An Education Al Lead for the department could focus these efforts, and could also lead or co-lead the internal effort to train our faculty and staff. | Education AI Lead designated; AI education strategy defined; AI education strategy implementation launched |
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| Develop a seed funding program for Al pilot projects and mini-sabbaticals | Develop a mechanism for selecting and funding projects led by DEB faculty that will explore and develop new Al-related lines of research, and consider funding "mini-sabbaticals" that would support faculty to spend dedicated time at leading academic institutions or within the tech industry to gain hands-on experience with the latest Al tools, methodologies, and practices. We will explore co-funding of mini-sabbaticals with technology companies. | Seed funding program launched; Projects/faculty funded; Tech company partnerships established |

Strategy #5: Expand our Population Health Portfolio

Population health and health equity priorities for DEB. We hold unique expertise in the relevant methods and naturally bring a population-level perspective to our research that complements UCSF's patient care mission and its commitment to be an Anchor Institution in San Francisco.

We have an opportunity to invest in a coordinated effort to improve the health of our local population. We have likeminded colleagues at all the major institutions providing healthcare in San Francisco, and we have strong community partners who can help us understand the needs of our local community and opportunities for local intervention. With focus and creativity, we can make an impact locally that will contribute meaningfully to UCSF's mission. To advance this agenda, the department plans the following strategies:

| Tactic | Description | Process metrics |
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| Partner with population health leaders in the School and health system | Establish a strategic partnership with the Associate Dean of Population Health and Health Equity and the Chief Population Health Officer at UCSF Health and develop a coordinated research agenda that aligns with operational efforts. | Proposal developed |
| Develop a Healthy Neighborhoods Initiative for local population health | Invest in collaborations (with local health departments, health systems, and community-based organizations), develop linked data assets (EHR, social services, claims data) that support understanding of the health of our local population, and collaborate on proposals to fund interventions to address health issues (including disparities) that are prioritized by local communities. | Initiative designed with partners; Funding requested; Population health metrics improved |
| Launch a seed funding program to support DEB faculty interested in population health | Support proposals from DEB faculty to engage deeply with public health agencies and/or community partners to understand ground-truth realities for local populations, gain insights, and develop preliminary data that will lead to successful proposals that fund novel and effective interventions. | Seed funding launched; Projects/faculty securing external funding |
| Develop relationships with potential funders of population health work | In collaboration with UCSF leadership, explore and develop relationships with federal, state, and local entities with a stake in improving the health of local communities that might fund healthy neighborhood interventional work. | List developed; Outreach conducted; Funding secured |

Strategy #6: Conserve Resources for DEB

Our soft money environment is inherently stressful for faculty, who must find funding sources to support their salary. With the recent change in administration, there is heightened concern that federal funding for research may be reduced. If this occurs, we will face challenging times. While the department can't fundamentally change this reality, we will seek to enact some mitigating policies and take a generally conservative approach to strategic investment that conserves some of our resources.

| Tactic | Description | Process metrics |
|--|--|--|
| Grow our reserves | DEB core reserves should grow to meet or exceed university standards. | \$ reserves |
| Prioritize strategic support for our own people | As we consider strategic investments for DEB2025+, prioritize funding current DEB faculty and staff to do the work first, when possible, over hiring new staff, faculty or consultants | % of strategic investment going to existing DEB people |
| Consider setting aside DEB strategic funds for a bridge funding program within DEB | A bridge funding program could support faculty who have gaps in their funding and provide peace of mind for faculty considering a higher-risk/higher-reward line of inquiry. Such a program would need to develop eligibility criteria and policies for how much support will be provided to eligible faculty and would need to work within an overall budgetary constraint. Bridge funding could come without strings attached or could support effort from faculty towards our other strategic priorities (as above). Design of our program should consider that the School of Medicine already has a bridge funding program; the task force should provide rationale for how and why our program is different and still needed. | Charge a task force to design the program; Consider funding the program |
| Hire faculty judiciously | Opportunistic hiring should generally minimize cost to core resources and future obligations; hiring at the behest of an ORU should use ORU resources and set expectations clearly about future support; strategic hiring where substantial investment of core resources is required will be pursued only after consultation with the DEB Executive Committee and careful consideration of existing faculty expertise and capacity. | New hires, by ORU/track; Resources expended for hiring |

APPENDIX

Appendix Figure. Directed acyclic graph (DAG) depicting relationships between culture, collaboration, local departmental administrative functions, and the downstream outcomes we wish to produce, which is enhanced professional satisfaction and productivity.

