



C - CHANGE MEDICAL STUDENT SURVEY

A TOOL FOR MEASURING DIMENSIONS OF THE EXISTING CULTURE IN ORDER TO ADDRESS THE PROFESSIONAL AND PERSONAL DEVELOPMENT OF MEDICAL STUDENTS

Development of the C - Change Surveys	Page 1
Medical Student Survey Content	Page 2
Administration of the C - Change Survey	Page 3
Analysis and Reporting of Study Findings	Page 3
Fee Structure	Page 3
C - Change Survey Sample Timeline	Page 4
C - Change Practices	Page 4
Contact Information	Page 5
Selected C - Change Publications	Page 6

Development of the C - Change Surveys

The National Initiative on Gender, Culture and Leadership in Medicine, known as C - Change (for culture change) and housed at Brandeis University, is dedicated to improving the culture of academic medicine through research and action. Our objective is to promote an inclusive, affirming, relational and energizing working environment for all medical school faculty and trainees, at the same time increasing the diversity of leadership in academic medicine.

In an initial phase, C - Change has conducted in depth interviews with male and female faculty in five academic medical centers in order to document the culture and issues affecting faculty productivity and well-being.¹⁻¹⁷ Those qualitative interview data served as the basis for the construction of a comprehensive quantitative survey instrument, the C - Change Faculty Survey, which systematically explores and documents the experiences of medical school faculty and the organizational culture in their academic medical centers. The faculty survey was later adapted for medical students¹⁸ and residents¹⁹ to measure their perceptions of their learning environment and professionalism, and offers insights into the “hidden curriculum.”

The C - Change Surveys are available for use by academic medical centers wishing to assess and improve their culture and existing practices in order to create a more academically productive, inclusive, diverse and humanistic environment where all people can thrive. The Surveys allow detailed exploration of the foundations of the development of human capital, (e.g., trust, relationships, perception of opportunity, professionalism and the learning environment) as well

as the waste of such human capital. (e.g., disconnection, causes of dissatisfaction, burnout, and desire to leave academic medicine) When used in parallel, the C - Change Student, Resident, and Faculty Surveys provide credible and powerful tools for improvements. Survey findings can address accreditation requirements.

Content of the C - Change Medical Student Survey

The C - Change Medical Student Survey[®] (CMSS), with demonstrated evidence of validity,¹⁸ assesses the learning environment and the development of professionalism among medical students. It consists of 51 questions that assess relationships, trust, feelings of being valued and belonging, ethical issues, gender and diversity equity, perception of their school's support for career development, and other constructs related to the professional development of students.

The Medical Student Survey can be used for the following purposes:

- assessment of the culture and medical student professional experiences and learning environment
- collection of data for accreditation purposes
- to identify areas for improvement
- program evaluation
- quality improvement
- to track the culture or special dimensions of the culture
- in modular format to focus on dimensions of particular interest
- as a pre/post measurement tool
- pulse data collection
- comparison of sub-populations
- to track changes in perceptions over the four years of medical school

Data from the C - Change Medical Student Survey are analyzed along a subset of the same dimensions as the faculty and resident surveys:

1. Vitality
2. Self-Efficacy in Career Advancement
3. Perceptions of Institutional Support
4. Relationships, Inclusion, Trust
5. Personal and Institutional Values Alignment
6. Ethical and Moral Distress
7. Respect
8. Work-Life Integration
9. Gender Equity
10. Equity for members of groups underrepresented in medicine

Administration of the C - Change Survey

The C - Change Medical Student Survey is fielded electronically, or if preferred, it can be fielded in-house and/or in paper and pencil format, and takes about 10 minutes to complete. The Survey is hosted on a secure external website and administered by the C - Change team at Brandeis University to ensure confidentiality of responses and help achieve a high response rate. Data are provided to schools in aggregate form to protect the anonymity of respondents.

C - Change works closely with medical schools to understand any unique needs they might have in survey adaptation or fielding, and administers the Survey. C - Change works in collaboration with each institution to develop a strong communications plan to enable a high response rate. Depending on the size and analytic needs of the institution, C - Change can recommend and develop a sampling plan or field the Survey to the full census of the students as appropriate.

Analysis and Reporting of Study Findings

C - Change creates the scales representing dimensions of the culture and other analytic variables of interest, and prepares a summary report and data tables with frequencies for all survey variables.

Fee Structure

Budgeting for the C - Change Surveys depends on study specifics, such as the size of the study population, analysis of sub-populations, or tailoring the survey to institutional needs. The C - Change research team has developed a streamlined process to manage survey data collection, analysis, and reporting.

Services provided in the base survey price include:

- Consultation on institutional needs
- Customization of the C - Change Medical Student Survey
- Drafting announcements and cover communications
- Survey administration
- Reminders to achieve high response rates
- Management of e-mail communications with respondents
- Confidential data collection and storage
- Data analysis
- Reporting: summary report; detailed item report

Optional additional services include:

- On-site presentation of the C - Change Medical Student Survey findings

- Collection of open-ended narrative responses
- Design of tailored change activities/workshops/programs

C - Change Survey Sample Implementation Timeline

Preparation	Project launch discussion of scope of survey, population to survey, timing of survey
Weeks 1-4	Survey customized Communications drafted E-mails and demographics prepared E-mail addresses provided to C - Change
Week 5	Survey finalized Communications finalized
Weeks 6-11	Survey in field
Week 12-19	Data programming and analyses conducted Reports prepared
Week 20	Data tables delivered Summary report delivered
	Study debriefing

C - Change will be pleased to work with you to customize a project and timeline that meets your institution’s needs.

Consultation Services and C - Change Practices

Assisting institutions to collect and use their survey data effectively and constructively are central elements of the services provided with the C - Change Survey. C - Change offers consultation on implementing data-action cycles, i.e., change activities that are appropriate and responsive to Survey findings.

C - Change can conduct discussion groups, interviews and/or workshops with leaders or constituent groups in the academic medical center for multiple purposes:

- For presentation of data
- As an engagement of stakeholder strategy
- To address issues that emerge from the Survey
- To help formulate and implement change activities
- As part of a needs assessment to collect in-depth information about aspects of the culture

For information about use of the C - Change Surveys,
please contact cchange@brandeis.edu or 781.736.8120
or Linda Pololi, MD at lpololi@brandeis.edu.

Please see website at <http://cchange.brandeis.edu> for additional survey-related references
and information.

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Selected C - Change Publications

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