TAKING DIVERSITY INTO ACCOUNT IN RESEARCH:

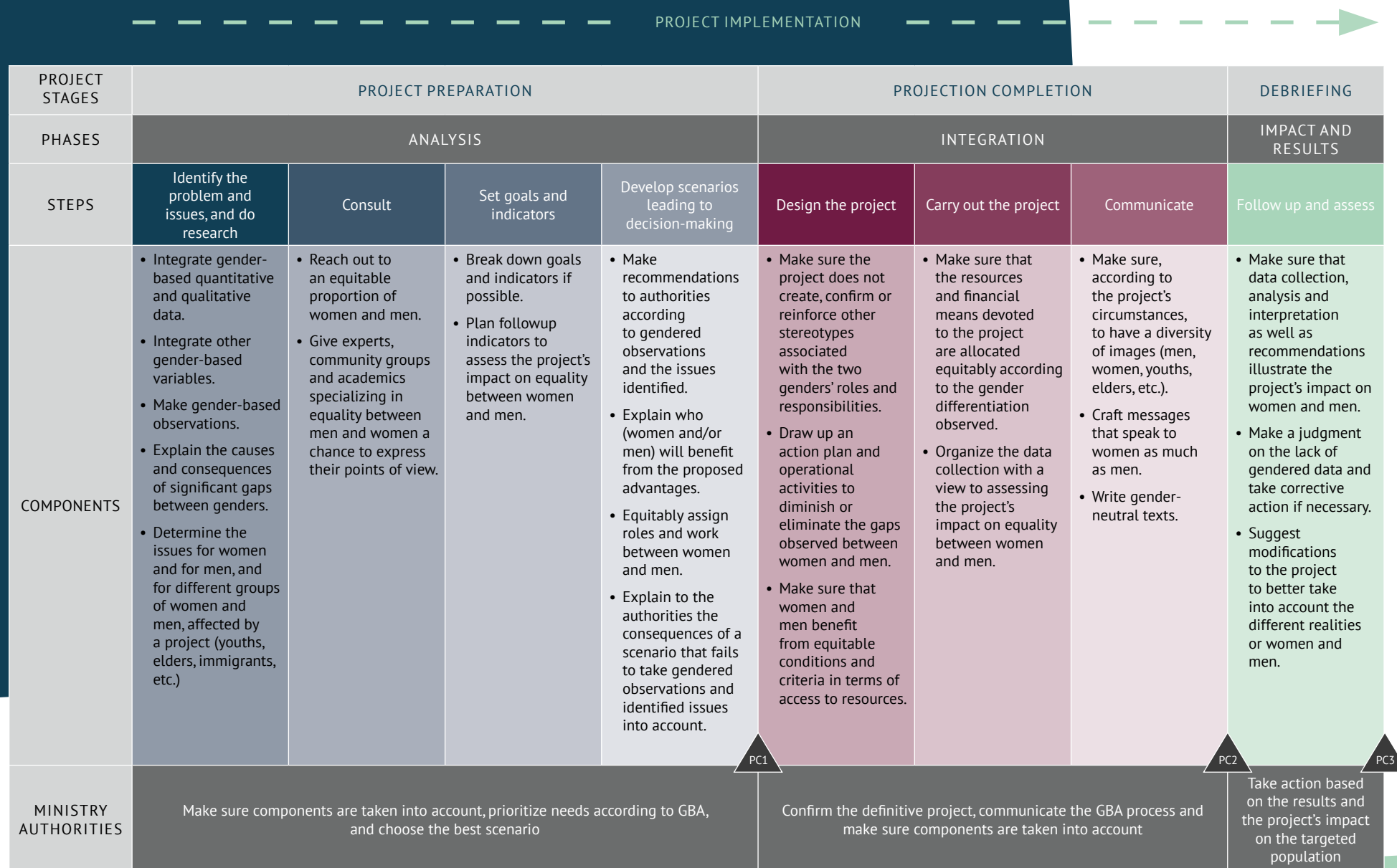# AN INTRODUCTION TO GBA+, ADS+ AND SGBA

DID YOU KNOW?

Following are a few concepts and facts associated with GBA+, ADS+ and SGBA.

- Gender-based analysis (GBA+) is the term used in Canada since 1996, while *analyse différenciée par les sexes plus* (ADS+) is the term used in Quebec since 1997;[1]

- The "+" in GBA+ and ADS+ means that the analysis is intersectional. Hence, beyond sex and gender, this analysis encompasses intersecting factors such as ethnic background, age, religion, the presence of a physical or intellectual disability, and much more;[2,3]

- The Canadian Institutes of Health Research (CIHR) contrastingly use the term "sex and gender-based analysis" (SGBA). SGBA can also take into consideration the influence of determinants such as ethnicity, socioeconomic status, disability, sexual orientation, immigration status, age and geography on aspects associated with sex and gender;[4]

- This analysis is used to assess the potential impact of policies, programs or initiatives on various groups of people—women, men or others.[2] It is applied to a variety of fields, including research;

- Using this analysis helps determine whether different groups in a population are affected differently. For example, concussions can affect anyone, but GBA+ (similar to ADS+ and SGBA) has suggested that adolescent and adult (pre-menopausal) women with concussions exhibit more symptoms, have longer reaction times, and experience greater impairment of their cognitive abilities than men in the same age categories;[5]

- By taking into account the different realities and needs of each group of people, this method makes it possible to refine analysis and offer a more accurate portrait of the population;[6]

- This analysis helps to make science more rigorous as well as to increase understanding of certain subjects (e.g., determinants of health).[4] It helps minimize our blind spots and become aware of the many remaining social inequalities;[1]

- There are three approaches that share the same goal of diminishing social inequality:

  > **The specific approach** aims at correcting situations of inequality related to systemic discrimination against women[1] through measures that address women's status;[7]

  > **The societal approach** seeks to bring about a change in institutional culture and foster the support of social stakeholders through policies, for example;[7]

  > **The cross-cutting approach** (includes GBA+, ADS+ and SGBA) is used when the initiative does not exclusively address women[10] and is complementary to the two other approaches.[7]

- GBA (similar to ADS+ and SGBA) is a tool that helps guide initiatives in order to reduce inequality. It is therefore important to integrate this analysis into all steps, and throughout the process.[8]

To give an example, the following figure represents the "ministry pathway for integrating GBA plus or ADS plus* [GBA+, ADS+] into a project**."[9] "*The plus refers to intersectionality. **A project may be defined by a law, regulation, policy, program, measure or service for citizens, or by any other decision"[9] (translated freely).

PROJECT IMPLEMENTATION

PROJECT STAGES	PROJECT PREPARATION				PROJECTION COMPLETION			DEBRIEFING
PHASES	ANALYSIS				INTEGRATION			IMPACT AND RESULTS
STEPS	Identify the problem and issues, and do research	Consult	Set goals and indicators	Develop scenarios leading to decision-making	Design the project	Carry out the project	Communicate	Follow up and assess
COMPONENTS	• Integrate gender-based quantitative and qualitative data. • Integrate other gender-based variables. • Make gender-based observations. • Explain the causes and consequences of significant gaps between genders. • Determine the issues for women and for men, and for different groups of women and men, affected by a project (youths, elders, immigrants, etc.)	• Reach out to an equitable proportion of women and men. • Give experts, community groups and academics specializing in equality between men and women a chance to express their points of view.	• Break down goals and indicators if possible. • Plan followup indicators to assess the project's impact on equality between women and men.	• Make recommendations to authorities according to gendered observations and the issues identified. • Explain who (women and/or men) will benefit from the proposed advantages. • Equitably assign roles and work between women and men. • Explain to the authorities the consequences of a scenario that fails to take gendered observations and identified issues into account.	• Make sure the project does not create, confirm or reinforce other stereotypes associated with the two genders' roles and responsibilities. • Draw up an action plan and operational activities to diminish or eliminate the gaps observed between women and men. • Make sure that women and men benefit from equitable conditions and criteria in terms of access to resources.	• Make sure that the resources and financial means devoted to the project are allocated equitably according to the gender differentiation observed. • Organize the data collection with a view to assessing the project's impact on equality between women and men.	• Make sure, according to the project's circumstances, to have a diversity of images (men, women, youths, elders, etc.). • Craft messages that speak to women as much as men. • Write gender-neutral texts.	• Make sure that data collection, analysis and interpretation as well as recommendations illustrate the project's impact on women and men. • Make a judgment on the lack of gendered data and take corrective action if necessary. • Suggest modifications to the project to better take into account the different realities or women and men.
MINISTRY AUTHORITIES	Make sure components are taken into account, prioritize needs according to GBA, and choose the best scenario PC1				Confirm the definitive project, communicate the GBA process and make sure components are taken into account PC2			Take action based on the results and the project's impact on the targeted population PC3

PC Control point   Image adapted from[9] (p. 64)

RECOMMENDATIONS

The following examples of practices for integrating diversity into a research program or project are provided for inspiration.

- Undergo training on GBA+, ADS+ or SGBA and learn more about its applications;

- Validate whether a consideration of diversity applies to one's research by conducting a GBA+, ADS+ or SGBA:

    > If so, take diversity into account in the project;

    > If not, explain why not.

- Determine if the project or program requires the use of a specific or cross-cutting approach;[10]

- Use the resources and tools available to researchers;[4]

- Make sure that diversity has been taken into account in all stages of the project;[10]

- Question one's prejudices or unconscious biases to make sure the options under consideration are not skewed, and make sure to consider all the possibilities.[8]

TAKING DIVERSITY INTO ACCOUNT IN RESEARCH

Inspired by the website *Gendered Innovation*, here are a few points to reflect on in order to taking diversity into account in research (non-exhaustive list):

Examples of areas of research in which failing to take the population's diversity into account could affect the results:

- Health: biomedical, clinical, population-health research, etc.;
- Environment: climate change impacts on animal populations and species, chemicals' impact on animal populations and species, design and use of urban spaces, etc.;
- Systems and services for the population: health, education, social services, human resources, etc.;
- Technological innovations: artificial intelligence, social robotics, facial recognition, product design for the population, etc.;
- Infrastructure: mobility, water management, etc.;
- Etc.

Examples of questions to ponder when choosing working hypotheses and research questions:

- What is known about the impact of sex, gender, or other specificities in the population (e.g., background, age, socio-economic status, lifestyle)?
- Are there interactions between two or more specificities (e.g., intersectional analysis or the "+" in GBA+ and ACS+)?
- Who could be consulted?
- Which perspectives would be relevant?
- What is not known about the problem?
- Why is it not known (e.g., no existing research, findings not differentiated by specificity)?
- What is the impact of knowing (or not knowing) on the search for and development of solutions?
- What could be examined to deepen knowledge and validate or improve current practices?
- Should diversity-related factors be included in order to improve the research?
- Should the targeted group participate in establishing the research question and hypotheses?

- How to determine the level of diversity to attain in the sample?

- How can diversity be controlled within the sample (e.g., participants, animals studied, cells used)?

- How can the recruitment process be prevented from limiting diversity (e.g., persons with reduced mobility require specialized transportation, which can complicate their participation in research)?

- What are the challenges of recruiting a diversified sample?

- How is it possible to limit the methodology's impact on diversity (e.g., schedules can limit the availability of certain groups such as caregivers or relatives)?

- What data might be useful during analysis in order to evaluate the impact of diversity on the results?

- What should be included in the methodology to take diversity into account in analysis (e.g., questionnaire, anthropometric measurements, biomarker assessment)?

- Are the measurement tools biased (e.g., the threat of stereotyping can influence test scores; see the Stereotype Threat White Paper for more information)?

- Is it possible for the team that is taking measures to introduce biases (e.g., because of preconceived notions)?

Examples of questions to ponder when analyzing the results:

- How would it be possible to examine the presence or absence of interaction between the population's various specificities?

- Might the team analyzing the results introduce biases (e.g., because of stereotypes or blind spots)?

- Will targeted populations be involved in analyzing the results?

Examples of questions to ponder when disseminating the results:

- How can the data be presented in order to show the presence or absence of differences between groups?

- To which populations will the results be disseminated?

RESOURCES

Introduction to GBA+ course.
https://women-gender-equality.canada.ca/en/gender-based-analysis-plus/take-course.html

Gender-Based Analysis in Government Practices and Those of Local and Regional Decision-Making Bodies.
http://www.scf.gouv.qc.ca/fileadmin/Documents/ADS/ADS-guide-2007-2010-en.pdf

Online Training Modules: Integrating Sex & Gender in Health Research.
https://cihr-irsc.gc.ca/e/49347.html

Gendered innovations website.
https://genderedinnovations.stanford.edu/

Toolkit: *L'ADS pour y voir clair.* (French only) Link to order the kit:
https://www.femmescentreduquebec.qc.ca/fichiers/Promo-trousse-ADS.pdf

REFERENCES

1   Tanguy, A. & Relais-Femmes (2018). *Ads+ : analyse différenciée selon les sexes dans une perspective intersectionnelle. Trajectoires de violence conjugale et de recherche d'aide.* http://trajetvi.ca/files/publications/fiche-synthe-se-ads-finale.pdf

2   Government of Canada (2018a). *What is Gender based Analysis Plus?* Women and Gender Equality Canada.
    https://women-gender-equality.canada.ca/en/gender-based-analysis-plus/what-gender-based-analysis-plus.html

3   Natural Sciences and Engineering Research Council of Canada (n.d.). *Guide for applicants: Considering equity, diversity and inclusion in your application.* Government of Canada. https://www.nserc-crsng.gc.ca/_doc/EDI/Guide_for_Applicants_EN.pdf

4   Canadian Institutes of Health Research (2019). *How to integrate sex and gender into research.* Government of Canada.
    https://cihr-irsc.gc.ca/e/50836.html

5   Government of Canada (2018b). *Applying GBA+ to concussion prevention and treatment.*
    https://cfc-swc.gc.ca/med/multimedia/videos/con-comm-en.html

6   Secrétariat à la condition féminine (2007). *Gender-based analysis in government practices and those of local and regional decision-making bodies.* Gouvernement du Québec. http://www.scf.gouv.qc.ca/fileadmin/Documents/ADS/ADS-guide-2007-2010-en.pdf

7   Massé, H. & Secrétariat à la condition féminine (2005). *L'expérimentation de l'analyse différenciée selon les sexes au gouvernement du Québec : ses enseignements et ses retombées.* Gouvernement du Québec.
    http://www.scf.gouv.qc.ca/fileadmin/Documents/ADS/Document-Experimentation-ADS.pdf

8   Government of Canada (2018c). *Introduction to GBA+.* Women and Gender Equality Canada.
    https://women-gender-equality.canada.ca/en/gender-based-analysis-plus/take-course.html

9   Ministère des Transports (2019). *Guide d'analyse du genre adapté au domaine des transports.* Gouvernement du Québec.
    https://www.transports.gouv.qc.ca/fr/ministere/organisation/egalite-hommes-femmes/Documents/guide-analyse-genre-transport-acc.pdf

10 Table de concertation du mouvement des femmes Centre-du-Québec (n. d.). *La déesse de l'ADS : pour y voir clair.*
    (Link to order the kit: https://www.femmescentreduquebec.qc.ca/fichiers/Promo-trousse-ADS.pdf)

ABOUT THE NSERC CHAIR FOR WOMEN IN SCIENCE AND ENGINEERING IN QUEBEC

The mission of the Chair for Women in Science and Engineering (CWSE) in Quebec is to increase the representation of women and maintain their participation in the field of science and engineering (SE). The Chair's first action area is to work with girls and the people close to them to present and demystify the opportunities that SE has to offer. The Chair also works with students and professionals to better equip them to overcome the obstacles that continue to affect their careers. Moreover, the Chair works with several communities to rally efforts around the equity, diversity and inclusion in higher education and research. The Chair's second action area is to conduct research to understand and raise awareness of this issue. In this way, it helps propose potential solutions to the various authorities involved, with a view to driving change.

ABOUT UNIVERSITÉ DE SHERBROOKE

In its 2018–2022 strategic plan, Université de Sherbrooke committed to becoming an exemplary environment with respect to equity, diversity and inclusion (EDI). This commitment has resulted in the adoption of a related action plan, which is under the direct responsibility of the rector. Implementation of this plan is supported by the Executive Committee, the EDI Strategic Committee and all its working committees, and by several influential members of our community. The university is proud to be able to count on the leadership of the Chair for Women in Science and Engineering, which is contributing to this objective by developing a series of EDI-related training and tools, thereby strengthening our academic community.

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