

Part 5

Policy and population approaches to poverty

by Michael Rachlis, MD, FRCPC, LLD; Ritika Goel, MD, CCFP, MPH;
Christopher Mackie, MD, CCFP, MHSc, FRCPC; Rosana Pellizzari, MD, MSc, CCFP, FRCPC;
Lisa Simon, MD, MPH, CCFP, FRCPC

PART 5 OF 5

Why poverty is a medical problem



Introduction

THIS IS THE FINAL ARTICLE IN A SERIES ON POVERTY AND HEALTH. PREVIOUS ARTICLES HAVE DESCRIBED POVERTY IN ONTARIO, IDENTIFIED ITS HEALTH EFFECTS, AND OFFERED PRACTICAL SUGGESTIONS FOR OFFICE-BASED INTERVENTIONS TO REDUCE ITS IMPACT ON PATIENTS AND FAMILIES. THIS ARTICLE OUTLINES POLICY AND POPULATION-BASED INTERVENTIONS TO REDUCE POVERTY.

In 2008, Ontario announced that its child poverty-reduction strategy would reduce childhood poverty rates by 25% within five years. In fact, from 2008 to 2011, the Ontario childhood poverty rate, as measured by the Low Income Measure, decreased by about 9% in relative terms (1.4% in absolute terms).¹ This is better than the Canadian average relative decrease of 6.5%, but not as impressive as Quebec (18%), or the child poverty-reduction leader, New Brunswick (44%).²

The jurisdictions that have been most successful have certain tactics in common. Successful jurisdictions identify poverty as a problem for everybody and develop a comprehensive strategy that includes measurable targets.^{3,4}

The Importance Of Policy And Population Approaches To Poverty

As described in the second article in this series (which appeared in the October 2013 OMR, accessible at <http://omr.oma.org/>), as well as the third and fourth articles (which appear on pages 20-23 and 25-29, respectively), individ-

ual physicians can do a lot to ameliorate the impact of low income on the health of their patients.

While addressing the issue at an individual level has value, public policy approaches can have a broad impact; mandatory seatbelt laws being one example among many.⁵ A 2013 Canadian Medical Association paper identifies the importance of systematically approaching poverty with public policy.⁶

Evidence also indicates that income inequality is as important a health issue as absolute poverty. This simply cannot be addressed at the individual level. Unequal societies and communities are less healthy than more equal societies, even if average income levels are the same.⁷

Ontario and Canada have relatively high rates of childhood poverty.⁸ Canada's childhood poverty rate ranks 24th out of 35 industrialized countries. Iceland, Sweden and Finland have less than half of Canada's rate of child poverty. These countries have reduced childhood poverty through deliber-

ate public policies based upon values around equity and women's rights.⁹

Conversely, the United States has nearly twice Canada's rate of childhood poverty, and five times that of Iceland. The U.S. situation is also due to deliberate public policies based upon the value of the supremacy of the individual.¹⁰

Healthy Public Policy And Intersectoral Action Approaches

Various policy approaches to poverty have been found effective at reducing poverty and/or ameliorating its adverse health consequences. Specifically, child tax credits, working income tax benefits, disability assistance programs, higher minimum wages, more comprehensive "social" benefits, such as public drug and dental coverage, supports for affordable housing, and higher social assistance rates can all reduce poverty and its health impacts.¹¹

Unfortunately, these policies are typically developed within their own policy silos and too often don't fit together at the individual or family level. For example, social assistance programs have

strict requirements of minimum liquid assets, which means an individual or family has to be effectively destitute before receiving assistance. Social assistance recipients also risk losing their housing or health benefits if they transition to the paid workforce.

Recently, there has been renewed interest in a so-called guaranteed annual income policy (also known as a “negative income tax”), which could provide a more comprehensive, cross-cutting approach to alleviating poverty. The policy would establish a floor income below which people could not fall. Many details would need to be ironed out in such a plan, including establishing the minimum level of support. However, a guaranteed annual income could be administered simply through the tax system. Child tax credits use the existing tax system and have been recognized as an important factor providing some relief from poverty over the last two decades.¹²

One version of a guaranteed annual income — Mincome — was tested in Manitoba in the 1970s. A recent analysis suggests that the program improved participants’ health, with an 8.5% reduction in hospitalizations.¹³

This year, the Canadian Medical Association recommended a guaranteed annual income as a key tactic within a comprehensive anti-poverty strategy.⁶ In 2009, the Canadian Senate’s Standing Committee on Social Affairs also recommended a negative income tax.¹⁴

Public Health Approaches To Poverty Reduction

From its earliest days in Ontario, public health services have been concerned about the health consequences of social and economic inequalities. Since 2009, Ontario’s Public Health Standards have officially mandated local boards of health to address the determinants of health through a “broad range of population-based activities designed to promote the health of the population and reduce health inequities by working with community partners.”¹⁵

As of 2012, public health units can apply for funding for two public health nurses to increase their capacity to take

action on the social determinants of health.

The National Collaborating Centre on the Determinants of Health (NCCDH), one of five centres of excellence funded by the Public Health Agency of Canada (PHAC), identifies the following roles for public health services:

- Assess and report on the health of populations to identify existing health inequities, their impacts, and ways to address those inequities.
- Modify or reorient public health interventions to consider the unique needs and capacities of marginalized populations to reduce inequities.
- Collaborate with multiple sectors, to engage communities, and to identify ways to improve health outcomes for marginalized populations.
- Lead and support other organizations and stakeholders in policy analysis, development, and advocacy to improve health equity.

Ontario’s local public health agencies are actively engaged in all of these activities with their community partners. In 2009, Sudbury & District Health Unit reviewed public health approaches to reduce health inequities and produced fact sheets on 10 promising practices to reduce health inequalities (see sidebar below).¹⁶ Targeting early childhood programming as a poverty-reduction initiative is particularly well supported

by research. For example, the Nurse-Family Partnership, offered to low-income mothers in Hamilton, is strongly supported by multiple randomized controlled trials.¹⁷ This program has proven very cost-effective and shows potential to break the cycle of inter-generational poverty.

As of 2013, the Public Health Sector now has a strategic plan, entitled “Make No Little Plans,” that includes strategies to reduce health inequities.¹⁸ This includes work with both municipal and provincial policy-makers to address the social determinants of health.

Community Initiatives

Initiatives organized at the community level can also contribute to reductions in poverty and income inequality, and their associated health impacts.

Comprehensive community initiatives (CCIs) are considered promising practices, and have increased in popularity over the past two decades.¹⁹ CCIs are place-based, comprehensive approaches to reducing poverty and other complex socio-political problems.²⁰

Local factors, such as local pay levels, shifting labour markets, and social exclusion can contribute to poverty. Local efforts can mobilize community pressure on various levels of government to change social policies that are

Ten Promising Practices To Reduce Health Inequalities*

1. Targeting With Universalism
2. Purposeful Reporting
3. Social Marketing
4. Health Equity Target Setting
5. Equity-Focused Health Impact Assessment
6. Competencies/Organizational Standards
7. Contribution to the Evidence Base
8. Early Childhood Development
9. Community Engagement
10. Intersectoral Action

Source: Sudbury & District Health Unit (http://www.sdhu.com/content/healthy_living/doc.asp?folder=3225&parent=3225&lang=0&doc=13088)



at the root of poverty and inequality.²¹ In practice, CCI tend to be long-term, broad-based collaborations of service providers, community members, advocates, businesses, governments and other stakeholders, who come together to develop comprehensive and integrated multi-level service and policy responses to poverty. A salient example is Vibrant Communities, a pan-Canadian initiative involving 13 communities, including Hamilton and Waterloo.²²

A 2010 summary of research and evaluations on major CCIs concluded that many of these initiatives had achieved part of their intended outcomes, having increased the visibility of poverty as a public issue, built effective collaborations, mobilized community and public support to address root causes, developed innovative approaches, and — importantly — helped achieve substantive policy changes to address the foundations of poverty and inequality.²⁰ However, direct evidence of impact on poverty reduction remains limited, as does the availability of peer-reviewed research in this area.^{20,23}

Some community-based initiatives have worked to address other determinants of health. There is emerging evidence that policies and programs related to housing can impact health and its determinants.²⁴ On the other hand, some authors have suggested that initiatives such as food banks may have perverse effects by allowing governments to ignore their responsibility to address food security.²⁵

Community initiatives hold promise for both complementing and contributing to policy change and other aspects of poverty reduction.

How Can Doctors Advocate For Poverty Reduction?

Both the Canadian College of Family Physicians and the Royal College of Physicians and Surgeons of Canada recognize advocacy as a foundational physician role.^{26,27} Physicians can advocate in a number of ways to reduce poverty in Ontario and have a long history of advocacy on poverty issues in Ontario and elsewhere.²⁸

Step 1: Engage with Professional Colleagues and Students

- This series has provided many practical interventions that physicians can use with individual patients, such as the clinical tool, “Poverty: A Clinical Tool for Primary Care in Ontario.”²⁹ Physicians can use these tools themselves, share them with colleagues and trainees, and also work to remind colleagues that income is the greatest determinant of health.

Step 2: Engage with Professional Bodies and Societies

- Physicians can put poverty on the agendas of our professional organizations. The Canadian Medical Association (CMA) has identified poverty as a threat to Canada’s health, the Ontario Medical Association is currently studying the issue, and the Ontario College of Family Physicians supports a dedicated Committee on Poverty and Health.

Step 3: Engage with Elected Representatives

- Our elected representatives are mandated to represent their constituents. Physicians can not only speak as voters, but as those who care for other voters. For example, you may contact your member of parliament (MP) to push for a national housing strategy, your member of provincial parliament (MPP) to urge an increase in social assistance rates, and your city councilor to increase support for subsidized housing. Face-to-face meetings are particularly powerful. Physicians can also phone, write, email or tweet their opinions, and are well positioned to submit briefs or deputations to public consultations.

Step 4: Engage with the Public

- Physicians are in a position of privilege and credibility and can make their opinions known through various avenues, e.g., letters to the editor, guest blogs on news or policy sites, personal blog sites, or Twitter pages. Timely statements linked to specific

patient experiences are more likely to attract media interest.

Step 5: Engage with Organizations Working to Reduce Poverty

- Reducing poverty is more likely to be achieved when working in coalitions, such as the Ontario Coalition Against Poverty and Campaign 2000. Health Providers Against Poverty (HPAP) is a coalition of physicians and other health-care workers that has advocated for poverty reduction. HPAP has undertaken its own initiatives in the medical community and beyond to garner support for public policy changes.

Conclusion

This article concludes a five-part series on poverty and health. After five years of Ontario’s poverty-reduction strategy, too many people still struggle to live on inadequate incomes. More than 1.5 million Ontarians live in poverty, including nearly 400,000 children.² However, childhood poverty has declined modestly, and we have additional information about how to reduce it a lot more. The guaranteed annual income approach appears especially promising.

Physicians see the impact of poverty daily in their practices and communities. Physicians can help their low-income patients directly in their offices, and can be effective advocates for public policies that can reduce poverty in our communities and our province. Physician organizations are increasingly highlighting the importance of poverty reduction and the need for physicians to act as advocates.

We close by offering inspirational quotations from two fathers of Canada’s medicare. Former Supreme Court Justice Emmett Hall was fond of citing an old Scottish saying, “Freedom begins with breakfast,” while Saskatchewan Premier Tommy Douglas’s favourite saying was, “Courage my friends. ‘Tis not too late to make a better world.”

The authors of this series look forward to working with our fellow physicians to eliminate poverty and make Ontario a better place for all. ■

Overall series editor: Dr. Andrea Feller. Series editorial committee: Dr. Andrea Feller, Dr. Gary Bloch, Dr. Michael Rachlis. The editors would like to thank Kathryn MacKay, Ontario Medical Association, for her assistance with the final preparation of the articles. The concept for these articles was developed by the Ontario College of Family Physicians Poverty Committee. The other authors and editors would like to thank Dr. Gary Bloch for his leadership on the series, and as the committee's founding and continuing chair.

Dr. Michael Rachlis is a Health Policy Analyst and Adjunct Professor, Dalla Lana School of Public Health, University of Toronto; Dr. Ritika Goel is a family physician in Toronto, the lead physician for the Inner City Family Health Team, and an active member of the Ontario College of Family Physicians (OCFP) Poverty and Health Committee; Dr. Christopher Mackie is the Medical Officer of Health and CEO of Middlesex-London Health Unit, and Assistant Professor, Part-Time, at McMaster University; Dr. Rosana Pellizzari is the Medical Officer of Health for the Peterborough County City Health Unit; Dr. Lisa Simon is Associate Medical Officer of Health for the Simcoe Muskoka District Health Unit.

Endnotes

- a. The Low Income Measure is the percentage of the population with an income more than below 50% less than the median income.¹
- b. Political support for the rights of women leads to policies such as investment in early childhood education (as a tool to ensure equal access to the workforce) and thus reduced poverty by both reducing unemployment of women and ensuring that all children have access to a good start in life reducing the "vertical transmission" of poverty.⁹
- c. Ontario's minimum wage of \$10.25 has not been raised since 2010. It is not indexed for inflation and only provides two-thirds of what a worker and their family require to live a basic life. Some groups in Canada and the U.S. support a so-called "living wage" concept, where the minimum income would be based upon the actual cost of living.¹¹
- d. For a more comprehensive examination of anti-poverty policies see The Caledon Institute (www.caledoninst.org), Canada without Poverty (<http://www.cwp-csp.ca/>), and 25 in 5 (<http://25in5.ca/>).
- e. Also available on the Sudbury & District Health Unit website is a video, entitled

"Let's Talk About Health... And Not Talk About Health Care at All," which is a useful tool for team meetings, staff engagement and community partners: http://www.sdhu.com/content/healthy_living/doc.asp?folder=3225&parent=3225&lang=0&doc=11749#video¹⁶

- f. For more details see: <http://www.healthprovidersagainstopoverty.ca/>.

References

1. Collins C, Jensen H; Canada. Parliamentary Information and Research Service. A statistical profile of poverty in Canada. Ottawa, ON: Ottawa, ON: Parliamentary Information and Research Service; 2009 Sep 28. Available at: <http://www.parl.gc.ca/content/lop/researchpublications/prb0917-e.pdf>. Accessed: 2013 Oct 24.
2. Statistics Canada. Persons in low income families: CANSIM table 202-0802. [Internet]. Ottawa, ON: Statistics Canada; [modified: 2013 Jun 26]. [about 5 screens]. Available at: <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=2020802&tabMode=dataTable&srchLan=-1&p1=-1&p2=9>. Accessed: 2013 Oct 24.
3. Collin C; Canada. Parliamentary Information and Research Service. Poverty reduction strategies in the United Kingdom and Ireland. Ottawa, ON: Parliamentary Information and Research Service; 2007 Nov 2. Available at: <http://www.parl.gc.ca/content/lop/researchpublications/prb0728-e.pdf>. Accessed: 2013 Oct 24.
4. Lipton M. Successes in anti-poverty. [Issues in development discussion paper 8]. Geneva, Switzerland: International Labour Office; 1996. Available at: http://www.ilo.int/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_123434.pdf. Accessed: 2013 Oct 24.
5. Dinh-Zarr TB, Sleet DA, Shults RA, Zaza S, Elder RW, Nichols JL, Thompson RS, Sosin DM; Task Force on Community Preventive Services. Reviews of evidence regarding interventions to increase the use of safety belts. *Am J Prev Med*. 2001 Nov;21(4 Suppl):48-65.
6. Canadian Medical Association. Health care in Canada: what makes us sick?: Canadian Medical Association Town Hall report. Ottawa, ON: Canadian Medical Association; 2013 Jul. Available at: http://www.cma.ca/multimedia/CMA/Content/Images/Inside_cma/Advocacy/HCT/

Have a question, but don't know who to ask?

Contact the OMA Response Centre:
A knowledge-based team who can respond to a variety of questions directly, or connect you to the person who can answer your question.

info@oma.org
1.800.268.7215
(press 0)



- What-makes-us-sick_en.pdf. Accessed: 2013 Oct 24.
7. Wilkinson RG, Pickett K. *The spirit level: why equality is better for everyone*. New York, NY: Penguin Books; 2010.
 8. Adamson P; UNICEF Innocenti Research Centre. Measuring child poverty: new league tables of child poverty in the world's rich countries. [Innocenti Report Card 10]. Florence, Italy: UNICEF Innocenti Research Centre; 2012 May. Available at: [http://www.unicef.ca/sites/default/files/imce_uploads/ DISCOVER/OUR%20WORK/ADVOCACY/ DOMESTIC/POLICY%20ADVOCACY/ DOCS/unicefreportcard10-eng.pdf](http://www.unicef.ca/sites/default/files/imce_uploads/DISCOVER/OUR%20WORK/ADVOCACY/DOMESTIC/POLICY%20ADVOCACY/DOCS/unicefreportcard10-eng.pdf). Accessed: 2013 Oct 24.
 9. Bremberg S. A perfect 10: Why Sweden comes out on top in early child development programming. *Paediatr Child Health*. 2009 Dec;14(10):677-80. Available at: [http:// www.ncbi.nlm.nih.gov/pmc/articles/ PMC2807813/pdf/pch14677.pdf](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2807813/pdf/pch14677.pdf). Accessed: 2013 Oct 24.
 10. Alesina A, Angeletos G-M. Fairness and redistribution. *American Economic Review*. 2005 Sep;95(4):960-80.
 11. Canadian Centre for Policy Alternatives. A living wage: why it matters. [Internet]. Ottawa, ON: Canadian Centre for Policy Alternatives; 2013. [about 3 screens]. Available at: [http://www.policyalternatives. ca/offices/ontario/livingwageON](http://www.policyalternatives.ca/offices/ontario/livingwageON). Accessed: 2013 Oct 24.
 12. Battle K. Beneath the budget of 2009: taxes and benefits. Ottawa, ON: Caledon Institute of Social Policy; 2009 Feb. Available at: [http://www.caledoninst. org/Publications/PDF/751ENG.pdf](http://www.caledoninst.org/Publications/PDF/751ENG.pdf). Accessed: 2013 Oct 24.
 13. Forget EL. The town with no poverty: the health effects of a Canadian guaranteed annual income field experiment. *Canadian Public Policy* 2011 Sep;37(3):283-305.
 14. Canada. Parliament. Senate. Subcommittee on Cities. In from the margins: a call to action on poverty, housing and homelessness: report of the Subcommittee on Cities, the Standing Senate Committee on Social Affairs, Science and Technology. Ottawa, ON: Senate Canada; 2009 Dec. Available at: [http://www.parl.gc.ca/ Content/SEN/Committee/402/citi/ rep/rep02dec09-e.pdf](http://www.parl.gc.ca/Content/SEN/Committee/402/citi/rep/rep02dec09-e.pdf). Accessed: 2013 Oct 24.
 15. Ontario. Ministry of Health and Long-Term Care. Ontario public health standards. [Internet]. Toronto, ON: Ontario Ministry of Health and Long-Term Care; [last modified: 2013 Feb 22]. [about 3 screens]. Available at: [http://www.health.gov.on. ca/en/pro/programs/publichealth/oph_ standards/default.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/default.aspx). Accessed: 2013 Oct 24.
 16. Sudbury and District Health Unit. Ten promising practices fact sheets. [Internet]. Sudbury, ON: Sudbury and District Health Unit; 2013. [about 2 screens]. Available at: [http://www.sdhu.com/content/healthy_ living/doc.asp?folder=3225&parent= 3225&lang=0&doc=13088](http://www.sdhu.com/content/healthy_living/doc.asp?folder=3225&parent=3225&lang=0&doc=13088). Accessed: 2013 Oct 24.
 17. Olds DL, Kitzman HJ, Cole RE, Hanks CA, Arcoletto KJ, Anson EA, Luckey DW, Knudtson MD, Henderson CR Jr, Bondy J, Stevenson AJ. Enduring effects of prenatal and infancy home visiting by nurses on maternal life course and government spending: follow-up of a randomized trial among children at age 12 years. *Arch Pediatr Adolesc Med*. 2010 May;164(5):419-24. Available at: [http:// www.ncbi.nlm.nih.gov/pmc/articles/ PMC3249758/pdf/nihms344055.pdf](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249758/pdf/nihms344055.pdf). Accessed: 2013 Oct 24.
 18. Public Health Leadership Council (Ontario); Ontario. Ministry of Health and Long-Term Care. Make no little plans — Ontario's public health sector strategic plan. Toronto, ON: Queen's Printer for Ontario; 2013 Apr. Available at: [http://www.health. gov.on.ca/en/common/ministry/publica- tions/reports/make_no_little_plans/docs/ make_no_little_plans.pdf](http://www.health.gov.on.ca/en/common/ministry/publications/reports/make_no_little_plans/docs/make_no_little_plans.pdf). Accessed: 2013 Oct 24.
 19. Austin MJ, Lemon K. Promising programs to serve low-income families in poverty neighborhoods. *J Health Soc Policy*. 2005;21(1):65-94.
 20. Gardner b, Ialani n, Plamadeala c. Comprehensive community initiatives: lessons learned, potential and opportunities moving forward. Toronto, ON: Wellesley Institute; 2010 May. Available at: [http:// tamarackcommunity.ca/downloads/ index/SD_Wellesley_Comp_Community_ Initiatives.pdf](http://tamarackcommunity.ca/downloads/index/SD_Wellesley_Comp_Community_Initiatives.pdf). Accessed: 2013 Oct 24.
 21. Baum F. Cracking the nut of health equity: top down and bottom up pressure for action on the social determinants of health. *Promot Educ*. 2007;14(2):90-5.
 22. Gamble J. Evaluating vibrant communities: 2002 – 2010. Waterloo, ON: Tamarack — An Institute for Community Engagement; 2010. Available at: [http://tamarackcommunity.ca/downloads/vc/VC_ Evaluation.pdf](http://tamarackcommunity.ca/downloads/vc/VC_Evaluation.pdf). Accessed: 2013 Oct 24.
 23. Kubisch AC, Auspos P, Brown P, Dewar T. Community change initiatives from 1990-2010: accomplishments and implications for future work from 1990-2010. *Community Investments*. 2010 Spring;22(1):8-12. Available at: [http:// www.aspeninstitute.org/sites/default/files/ content/images/rcc/Federal%20 Reserve%20Article%20on%20 Voices%203.pdf](http://www.aspeninstitute.org/sites/default/files/content/images/rcc/Federal%20Reserve%20Article%20on%20Voices%203.pdf). Accessed: 2013 Oct 24.
 24. Lindberg RA, Shenassa ED, Acevedo-Garcia D, Popkin SJ, Villaveces A, Morley RL. Housing interventions at the neighborhood level and health: a review of the evidence. *J Public Health Manag Pract*. 2010 Sep-Oct;16(5 Suppl):S44-52.
 25. Riches G. Food banks and food security: welfare reform, human rights and social policy: lessons from Canada? *Social Policy & Administration*. 2002 Dec;36(6):648-63.
 26. College of Family Physicians of Canada. Four principles of family medicine. [Internet]. Mississauga, ON: College of Family Physicians of Canada; 2013. [about 5 screens]. Available at: [http:// www.cfpc.ca/Principles/](http://www.cfpc.ca/Principles/). Accessed: 2013 Oct 24.
 27. Royal College of Physicians and Surgeons of Canada. CanMEDS: better standards, better physicians, better care. [Internet]. Ottawa, ON: Royal College of Physicians and Surgeons of Canada; 2013. [about 3 screens]. Available at: [http://www. royalcollege.ca/portal/page/portal/rc/ resources/aboutcanmeds](http://www.royalcollege.ca/portal/page/portal/rc/resources/aboutcanmeds). Accessed: 2013 Oct 24.
 28. Toronto Public Health. An infectious idea: 125 years of public health in Toronto: housing and social services. [Internet]. Toronto, ON: City of Toronto; 2013. [about 11 screens]. Available at: [http:// www.toronto.ca/archives/public-health/ housing.htm](http://www.toronto.ca/archives/public-health/housing.htm). Accessed: 2013 Oct 24.
 29. Bloch G. Poverty: a clinical tool for primary care. Toronto, ON: Ontario College of Family Physicians; 2013 Feb. Accessed October 9 2013. Available at: [http:// ocfp.on.ca/docs/default-source/cme/ poverty-a-clinical-tool-for-primary-care — a-desktop-guide-to-addressing- poverty-2013.pdf?sfvrsn=0](http://ocfp.on.ca/docs/default-source/cme/poverty-a-clinical-tool-for-primary-care-a-desktop-guide-to-addressing-poverty-2013.pdf?sfvrsn=0). Accessed: 2013 Oct 24.