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Historical analysis of Canadian newspaper coverage of organ transplant and organ donation

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Historical Analysis of Canadian Newspaper Coverage of Organ Transplant and Organ Donation

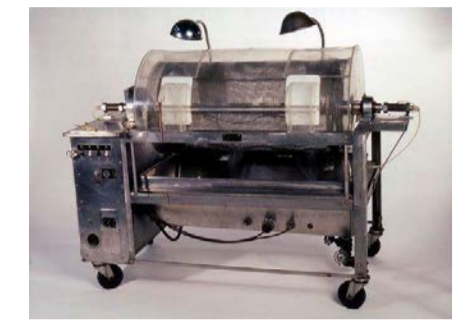
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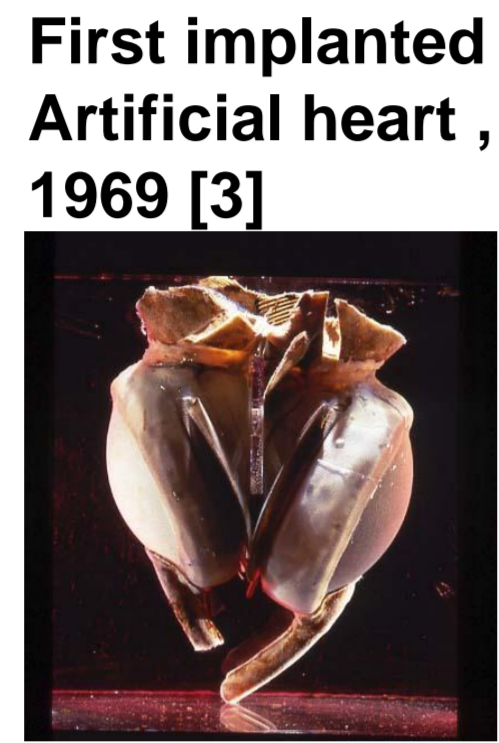
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Media Coverage Timeline



Artificial kidney from the founder of artificial organs Willem Kolff 1949 [1] and [2]. First kidney transplant, 1954 [2]



First implanted Artificial heart, 1969 [3]

N = 3 articles

Organs (n=)	
Lung	2
Heart	1
Liver	1
Technologies n=0	
Social groups n=0	
women	2
child	1
family	1
nurse	1
parent	1
patient	1
Social Issues n=0	

1970

1980

N = 603 articles=100%

Organs (%)	
Heart	50.75
Kidney	39.45
Lung	26.53
Pancreas	14.43
Liver	8.00
Stomach	7.79
Skin	6.63
Technologies (%)	
Artificial	7.13
Artificial heart	1.82
Mechanical heart	0.33
3-D print	0
Artificial ear	0
Bionic	0
Clon	0
Prosthetic	0
Tissue engineering	0
Stem cell	0
Social groups (%)	
Patient	53.06
Family	33.40
Parent	23.55
Child	20.23
Business	19.90
Doctor	19.07
Government	16.25
Physician	13.43
Infant	13.10
Nurse	10.94
Women	9.45
Babies	7.79
Professional	6.97
Social Issues (%)	
Cost	12.27
Ethics	9.05
Waiting list	6.78
Healthcare	6.30
Access	2.98
Afford	2.81
Quality of life	1.65

1990

N = 1215 articles=100%

Organs (%)	
Heart	39.74
Lung	36.21
Kidney	29.97
Pancreas	10.19
Bone	6.58
Skin	6.01
Technologies (%)	
Artificial heart	0.47
Xeno	0.23
Mechanical heart	0.10
Stem cell	0.05
Tissue engineering	0.05
3-D print	0
artificial ear	0
Bionic	0
Clon	0
Prosthetic	0
Social groups (%)	
Family	44.95
Patient	44.01
Business	25.69
Parent	18.93
Government	18.79
Child	17.47
Doctor	14.70
Nurse	10.94
Women	9.91
Professional	8.97
Physician	8.83
Social Issues (%)	
Waitinglist	15.36
Cost	12.30
Healthcare	12.16
Ethics	5.12
Access	4.84
Quality of life	3.47
Afford	2.68

2000



ArbioCor Artificial heart, 2001 [8]

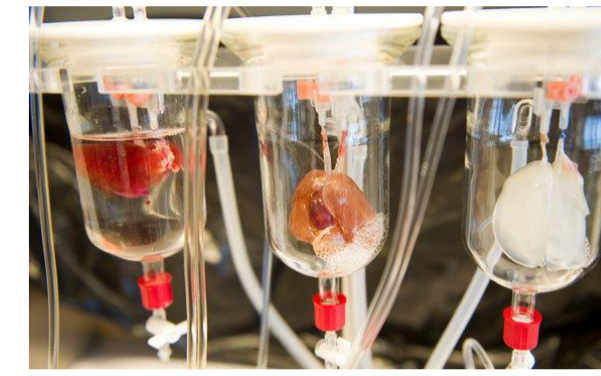
N = 6983 articles=100%

Organs (%)	
Lung	34.94
Heart	32.35
Kidney	28.44
Pancreas	7.83
Skin	6.63
Bone	5.22
Technologies (%)	
Artificial	1.60
Stem cell	1.10
Mechanical heart	0.32
Artificial heart	0.28
Xeno	0.14
Bionic	0.06
Tissue engineering	0.02
Clon	0.02
3-D print	0
Artificial ear	0
Prosthetic	0
Social groups (%)	
Family	47.01
Patient	39.78
Government	18.43
Business	18.31
Parent	15.25
Doctor	12.32
Child	11.96
Women	9.08
Nurse	9.06
Physician	7.10
Professional	7.06
Senior	6.85
Social Issues (%)	
Waiting list	15.39
Healthcare	10.75
Cost	9.87
Access	4.51
Quality of life	3.20
Ethics	3.13
Afford	1.80

2010

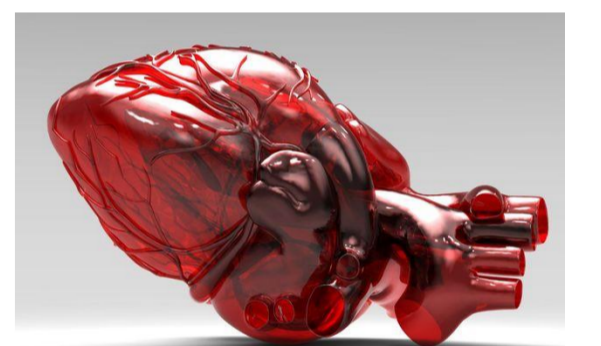
N = 2404 articles=100%

Organs (%)	
Lung	37.26
Heart	30.14
Kidney	20.90
Liver	8.78
Pancreas	6.54
Skin	5.53
Bone	5.28
Technologies (%)	
Clon	2.79
Artificial	1.46
Stem cell	0.96
Mechanical heart	0.46
Artificial heart	0.33
3-D print	0
Artificial ear	0
Bionic	0
Prosthetic	0
Tissue engineering	0
Xeno	0
Social groups (%)	
Family	52.10
Patient	35.72
Business	16.69
Government	15.20
Parent	13.99
Doctor	13.11
Child	11.53
Nurse	8.79
Women	8.70
Professional	8.58
Physician	8.12
Senior	6.53
Youth	6.08
Social Issue (%)	
Waiting list	14.82
Healthcare	10.37
Cost	9.20
Access	5.74
Quality of life	5.24
Ethics	1.91
Afford	1.12



Organs from Stem cells [9]

2014



3D printed heart [10]

Introduction

- Organ transplants are often the only option for patients facing organ failure
- Organ donation is constantly promoted to alleviate the shortage of organs and to decrease the wait list
- In Canada, in 2012, 1,900 transplants were performed, 3,404 patients were awaiting transplants, and 481 patients either withdrew or died while waiting on the transplant list.[4]

Objective

Media are seen to enable social participation [5], help set the discussion agenda for society, and create the boundaries which debates take place [6-7]. Organ transplantation and organ donation face many issues. We performed an analysis of issue-specific news frames that are communicated to Canadian readers to ascertain the utility of the coverage for the reader and the advancement of organ transplantation and organ donation.



Methods

- Source of historical and contemporary data:** the Calgary Herald and the Canadian Newsstand Complete database (n=300 Canadian newspapers) from 1978-2014
- Stage 1** (data not provided)
- Stage 2:** Downloaded all articles with the term “organ” in the title from the Calgary Herald (n=353) accessed through the Canadian Newsstand Complete database provided by the University of Calgary into Atlas-ti, a qualitative data analysis software
- Performed a historical qualitative content analysis of the Calgary Herald focusing on organs, technologies, social groups, and social issues mentioned
- Stage 2:** Identified all newspaper articles in the Canadian Newsstand Complete database for articles containing the terms “organ transplant” or “organ donation” from 1978-2014 (n=12,118) and searched these articles for keywords identified in stage 1 of the project to produce the quantitative data presented here.

References:

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- http://www.nytimes.com/2012/09/16/health/research/scientists-make-progress-in-tailor-made-organs.html?pagewanted=all&_r=0
- http://www.timeslive.co.za/thetimes/2013/09/02/3d-printing-of-human-organs

Discussion

- Technology:** Technologies were under investigated. Xeno-transplantation was mentioned from 1990-2009 but not anymore between 2010-2014, organ printing (3D printer) is not a covered issue, words like bionic and tissue engineering have low visibility
- Social Groups:** The social groups mentioned stayed the same including the ones not mentioned (i.e. Indigenous people, immigrants, people with disabilities) (data not shown). The coverage is a problem for socially disadvantaged groups.
- Organs:** Throughout the years, the top three organs mentioned were heart, lung and kidney
- Social issues:** The coverage of social issues has not led to a change and is problematic. The top six mentioned social issues were the same since 1980 with other issues such as equity, equality, and discrimination consistently less than 0.5%; coverage of ethics decreased from 9.05% in the 1980s to 1.91% in 2010 onward

Conclusion

The nature of the coverage in general changed very little over the years. Canadian newspapers cover the topic in a rather limited fashion with little utility for the general public to understand emerging trends, existing social issues, and possible solutions.