



Agriculture and Disabilities in COLOMBIA

*Beatriz Rodriguez, Manager
NC AgrAbility Partnership*

Disability and Agriculture Outside the U.S. – an International Panel Discussion

May 14, 2020



N.C. A&T
STATE UNIVERSITY

**COOPERATIVE
EXTENSION**

Agriculture



Photo: wikipedia.org

Six Natural Regions in Colombia

- The **Orinoquía** region **Eastern Plains** or **Llanos Orientales**. Agriculture, livestock and fishing.
- The **Amazonía** 35% of Colombia's total territory. Is a part of the massive Amazon rainforest. Agriculture, livestock, and fishing.
- The **Andes** region, is the most populated region of Colombia and the most productive land. With many mountains contains the majority of the country's urban centers. Agriculture and Livestock
- The **Caribbean** region – Livestock
- The **Pacific/Chocó** region is considered a biodiversity hotspot. Logging and fishing.
- The **Insular** region



Photos: La Ganaderia, Oct. 2009

Colombia is a Latin American
middle-income country

GDP	377.7 billion US dollars
2014	48 million inhabitants
Life Expectancy	74 years
Below poverty line	28.5%
2005 Census	6.4% ~ 3 million
Social organizations	
Colombian Constitutional Court	
	15% ~7.2 million

Use of Land

Ag Production Unit	Hectares	% of Total Area
70%	<5	5%
0.40%	>500	41.10%

Area

Livestock	80,3%
Agriculture	7,3%

(Dane) May 19, 2014

- 24% of the land apt for Agriculture production.
- Cost of feed for animals is high because the country do not produce enough and have to rely on imports.



Photo: Minagricultura

Livestock
Production
9.1 % Ag
GDP

Main Barriers

Poverty

Insecurity

High cost of inputs

Transportation

Unfair competition

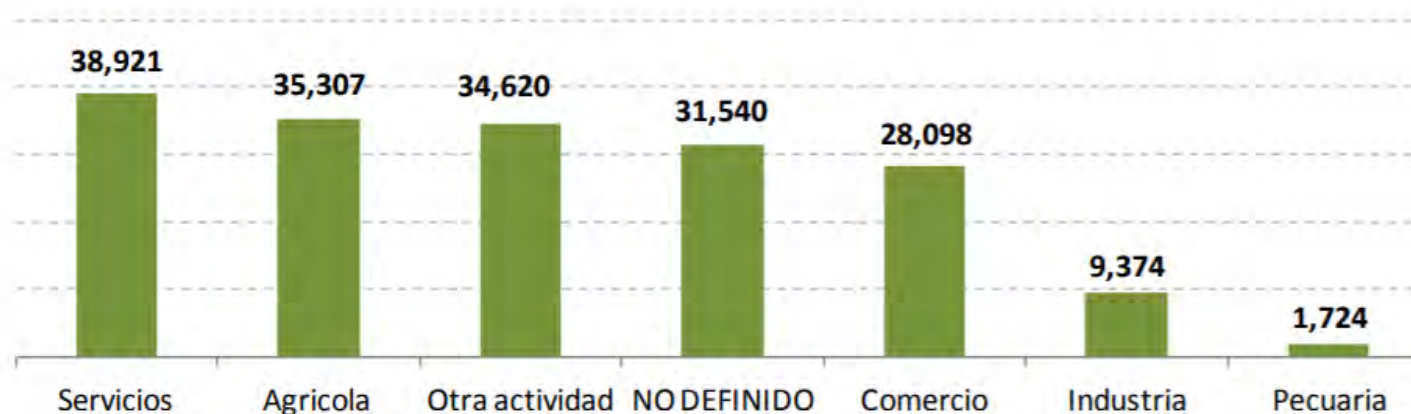
Lack of agricultural subsidies

Lack of infrastructure

Disabilities

Disability by Economic Activity

Personas con discapacidad según la actividad económica en la que trabajan

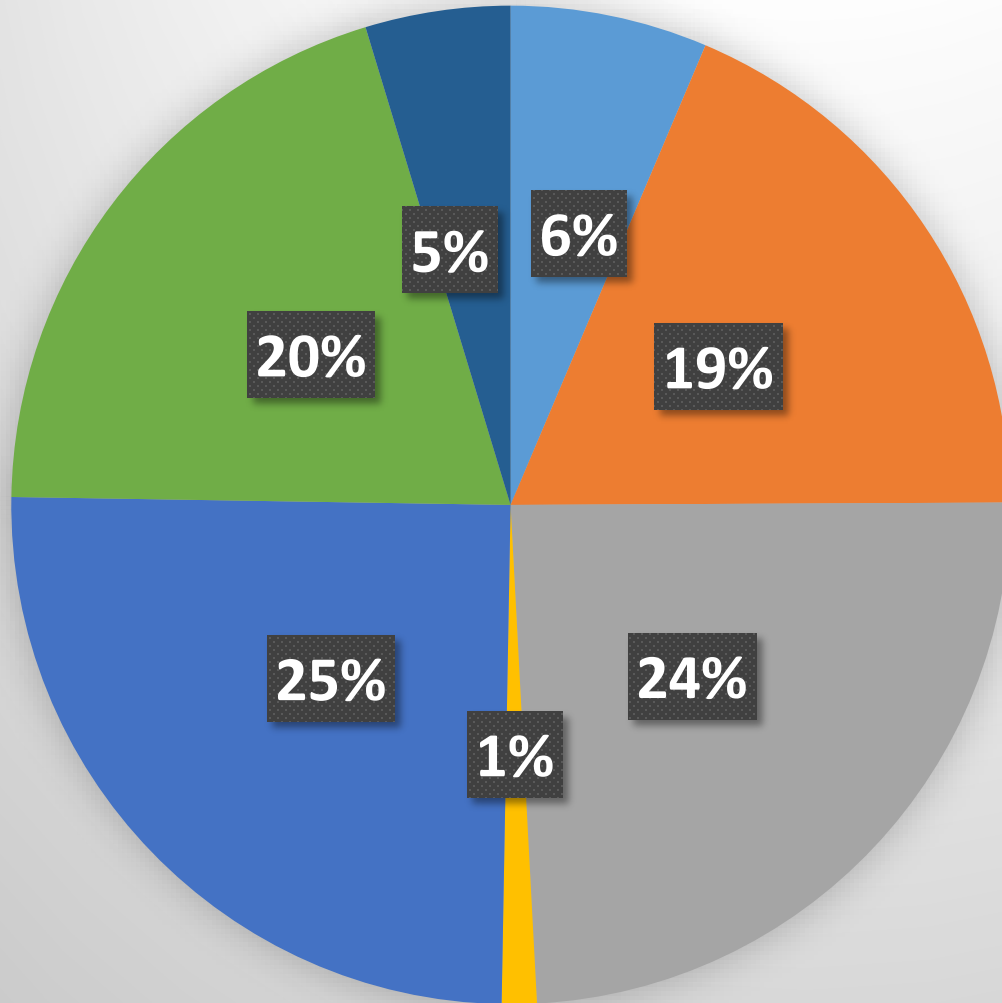


Fuentes: MSPS, SISPRO, RLCPD, julio 2015

Gráficos: MSPS, Oficina de Promoción Social.

36

Disability by Economic Activity



- Industria
- Comercio
- Agrícola
- Pecuaria
- Servicios
- Otra actividad
- Sin información

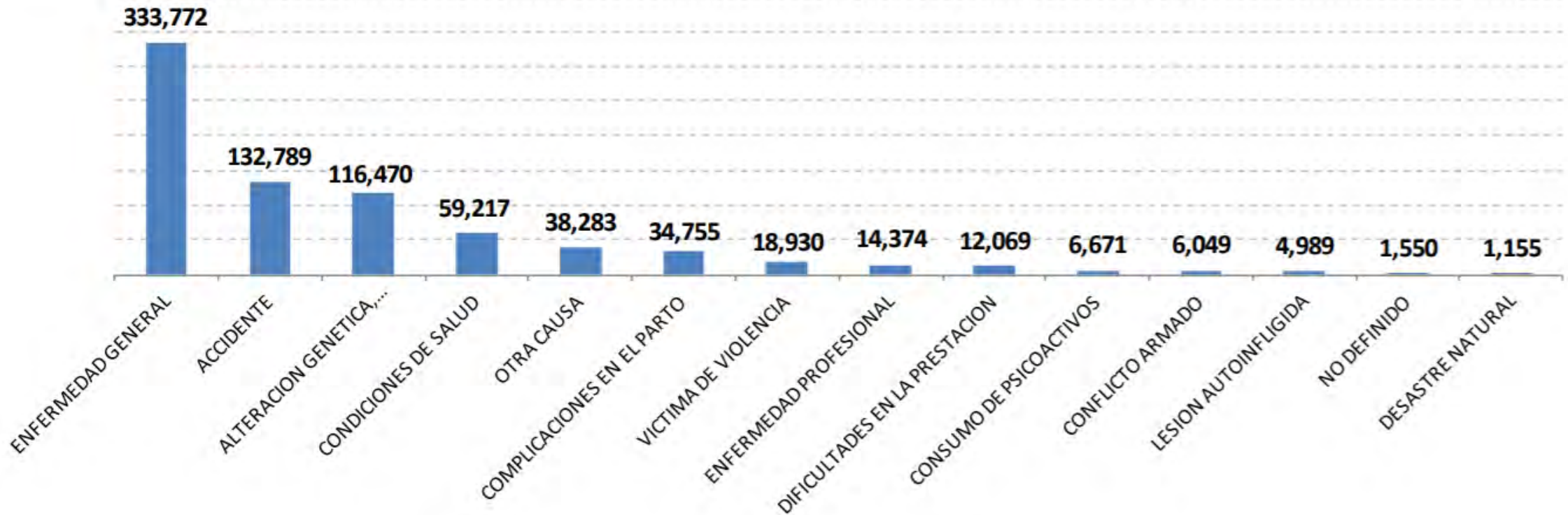
Disability by Origin



Población con discapacidad – PcD

Registro para la Localización y Caracterización de Personas con Discapacidad- RLCPD

Personas con discapacidad según el origen de la discapacidad



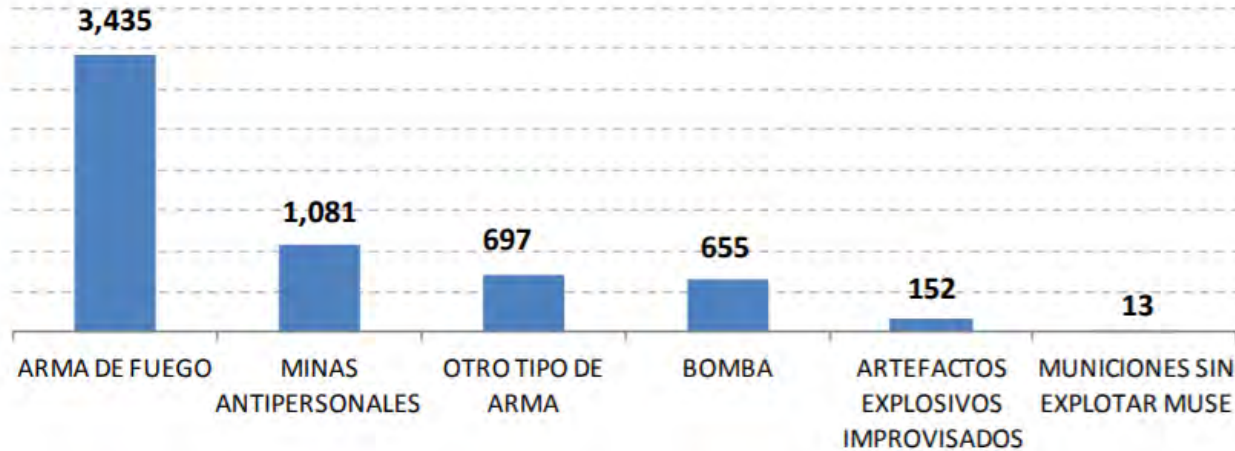
Armed Conflict



Población con discapacidad – PcD

Registro para la Localización y Caracterización de Personas con Discapacidad- RLCPD

Personas con discapacidad según si el origen fue el conflicto armado



Personas con víctimas de minas incluidas en el RLCD

Incluidas en el RLCD	Total	Porcentaje
Si	1,381	9.4%
No	13,322	90.6%
Total general	14,703	100%



VALLE DEL CAUCA



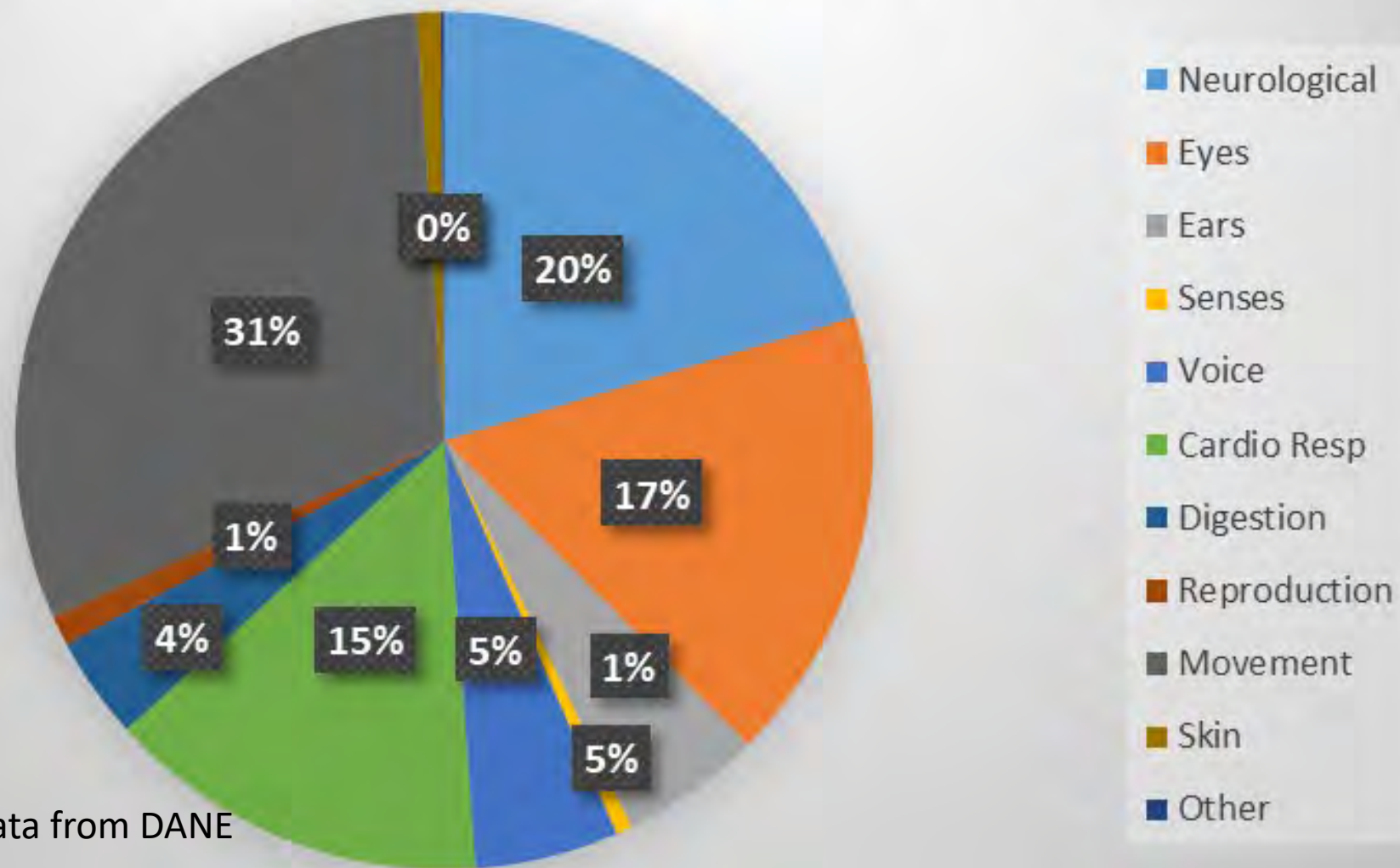
Social and economic inequalities

Highest level of productivity vs.
Greatest levels of social
underdevelopment

Diverse microclimate

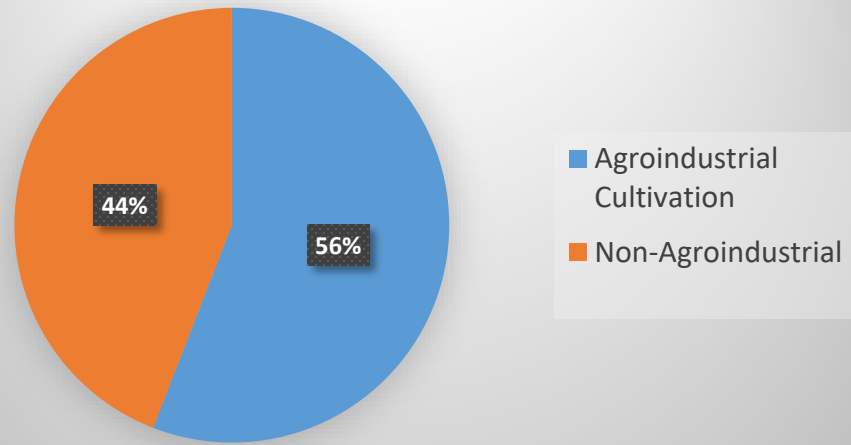
Diverse commodities

Main Disabilities in the Valle del Cauca

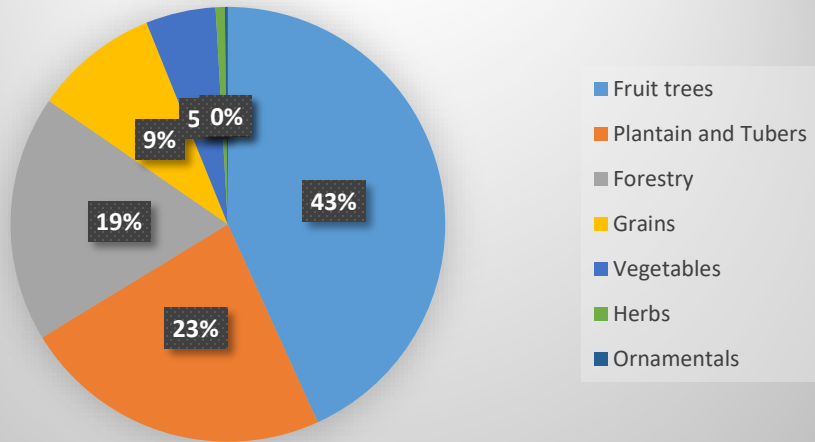


Graphs based on data from DANE

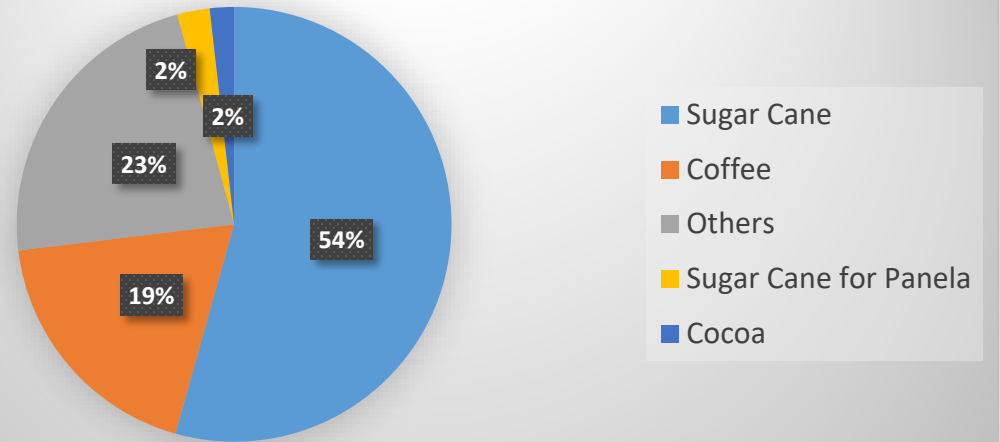
Cauca Valley - Ag Production



Non-Agroindustrial



Agroindustrial Cultivation



Graphs based on data from DANE



Photo: Caña de azúcar Valle del Cauca



Photo: Riopaila-Castilla.com



Photo: Agritotal.com



Photo: Cenicaña.org



Photo: ingeniomayaguez.com



Photo: riopaila-castilla.com



Photo: elpais.com



Photos: dinero.com



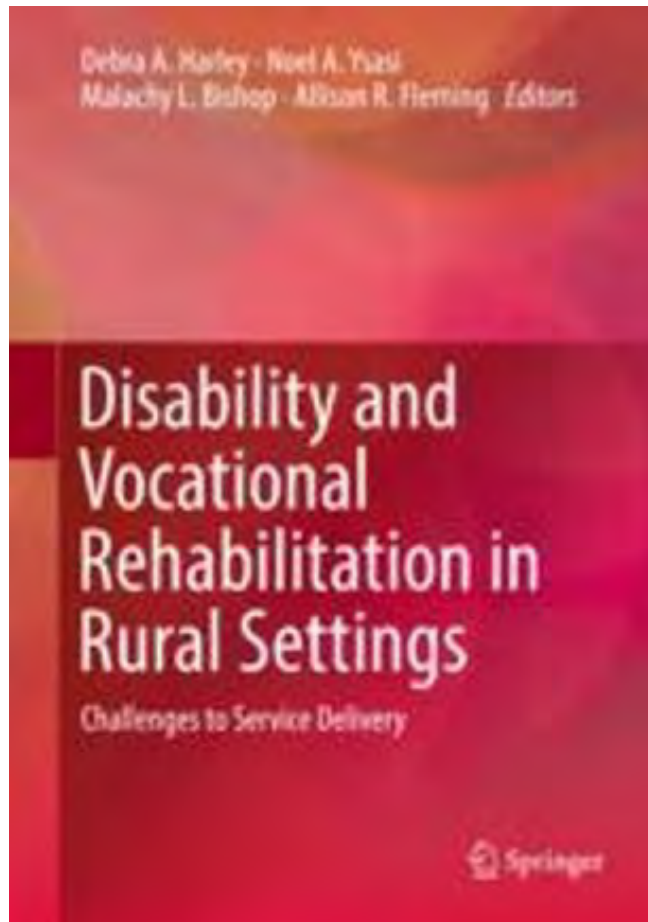
Photo: dinero.com



Photo: compromisoempresarial.com

Resources

- Rehabilitation Clinics
- Disability Organizations
- Universities



Official incidence of disability rate of 6.3%

Implement the community-based rehabilitation (CBR) matrix from the World Health Organization (WHO)

Provide reparation and rehabilitation services to individuals affected by the armed conflict.

Rehabilitation clinics

Disability Organizations

The **Colombian Federation of Organizations for People with Physical Disabilities**

(*Federation Colombiana de Organizaciones de Personas con Discapacidad Física* - FECODIF) Non-governmental organization created in 2003 to coordinate associations and organizations and offers support to people with disabilities, on a municipal, departmental, and regional level.

Discapacidad Colombia is a non-governmental organization providing information about disabilities in general, and resources in Colombia. The website (in Spanish) lists links to organizations from many different areas of public life, from education, to sport, to culture. It is an excellent resource for finding out information regarding living with disabilities in Colombia.

Colombian Network of Universities supporting Disabilities (*Red Colombiana de Universidades por la Discapacidad* - RCUD): A collaborative network of higher education institutions, public and private organizations, and individuals working to improve the inclusion process of people with disabilities in higher education.

The **Zero Limits Foundation** (*Fundación Cero Limites*) promotes integration between people with and without disabilities through artistic and cultural programmes, with an aim towards equality, accessibility, social inclusion, fostering talent and improving quality of life. The foundation is based in Bogotá but has links throughout the country.

National Institute for Blind People (*Instituto Nacional para Ciegos - INCI*):
Organization working with people with visual impairments.

National Institute for Deaf People (*Instituto Nacional para Sordos - INSOR*):
Organization working with people with hearing impairments.

National Federation of Deaf People of Colombia (*Federación Nacional de Sordos de Colombia - FENASCOL*): Organization working with people with hearing impairments.

Concerns

“Many of the state resources for the rehabilitation of persons with disabilities are subject to the administration of a private entity such as Teletón. It further notes that this campaign promotes the stereotype of persons with disabilities as “objects of charity” FECODIF



**Universidad
del Valle**

Development of Assistive Technology

Design, development, and implementation of an assistive technology device for shoulder telerehabilitation via the Internet

CD Chamorro-R, G Caicedo-D, JI García-M - Dyna, 2018 - scielo.org.co

This study reports the design, development, and validation tests of an assistive technology device for active and passive shoulder telerehabilitation. This application considers range of movement, degrees of freedom, and standard rehabilitation protocols. In addition, it can be operated locally or remotely via the Internet and allows the monitoring of treatment implementation. Its concept was developed using service-oriented architecture, with implementation through web services. Architecture validation was performed with Petri nets to analyze the dynamic performance of the device. This assistive technology device consists of a power unit containing the electronic control, security, and communication cards. This study resulted in an integral rehabilitation system, safe under any eventuality, which can be presented and adapted to the Colombian hospital system. The novelty lies in its safe synchronous operation, allowing treatment traceability and active or passive rehabilitation.

Limited Movement of Body, Hands, Arms, and Legs

Nationally	21%
Caucal Valley	35%

Methods for Rehabilitation Treatments

Medications	58%
Physical medicine	16%
Physiotherapy	22%

Quality of the rehabilitation service is commonly negatively affected by

Lack of money for travel	64%
Lack of a companion	4%
Distance from the care center	6%

Shoulder rehabilitation

Power Unit

Assistive Technology Device

Tele-rehabilitation via internet

Safe synchronous operation

Treatment traceability

Monitoring rehabilitation variables



Fuente: www.wikipedia.org

Food insecurity
Lack of transportation
Isolation from resources
Socio – economic disadvantages



Photos: el mundo del Jaleo

A large pile of ripe, red and yellow cherry tomatoes is shown on a wooden crate. The tomatoes are clustered together, with some still attached to their green stems. The background is slightly blurred, showing a wooden structure and a black tarp. The overall scene suggests a fresh harvest of tomatoes.

Questions?

Photo: elcampesino.co