

# **Support in the practice of the physiotherapy for dependent elderly in institutions**

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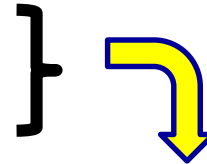
# DCOI

**I have no potential conflict of interest to report**

# CONTEXT

- **Institutions accomodating dependent elderly**

- Vulnerable
- No financial contribution (physio)



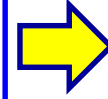
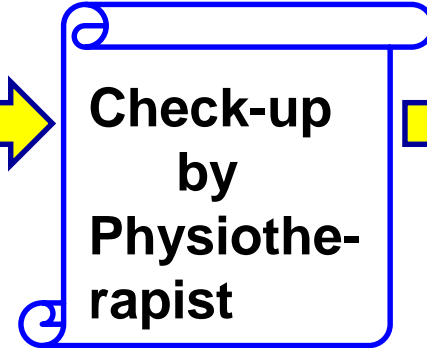
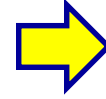
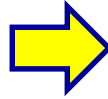
## **Opportunities of abuses and frauds**

- **Cost physiotherapy**

- 2016 Region > 387 000 000 €
- > 10% : institutions

# RULES (1)

Practice



Charge : key letter + coefficient

**Responsability – Trust**

# RULES (2)

## Rheumatological Orthopedic Conditions

<b>[ 7.5 : rehabilitation 1 limb</b>	<b>16.13 € ]</b>
<b>9.5 : rehabilitation 2 limbs</b>	<b>20.43 €</b>
<b>8 : walking and balance rehabilitation</b>	<b>17.20 €</b>
<b>6 : walking rehabilitation</b>	<b>12.90 €</b>

# OBSERVATIONS

Resident ano	sex	age	date of birth	date of death	INSTITU ano	date physio	day	number	session	coef
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	04/04/2016	MONDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	05/04/2016	TUESDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	06/04/2016	WEDNESDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	07/04/2016	THURSDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	08/04/2016	FRIDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	11/04/2016	MONDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	12/04/2016	TUESDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	13/04/2016	WEDNESDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	14/04/2016	THURSDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	15/04/2016	FRIDAY	1	AMS	9,5
.....										
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	26/09/2016	MONDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	27/09/2016	TUESDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	28/09/2016	WEDNESDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	29/09/2016	THURSDAY	1	AMS	9,5
Resident_3	1	101	30/04/1915	10/01/2017	INSTITU_7	30/09/2016	FRIDAY	1	AMS	9,5
Resid_658	2	92	20/01/1924	06/06/2016	INSTITU_9	06/06/2016	MONDAY	1	AMS	9,5

**NUMEROUS SESSIONS**

**VERY FEW CHECK-UPS**

**COEF 9.5**

# METHOD (1) institutions

**44 institutions  
cases**

**123 institutions  
«controls»**

**Octob-Dec 2016**

**ACTION**

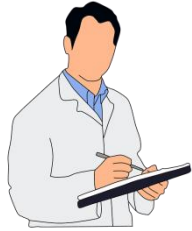
**NO ACTION**

**EVALUATION  
before / after**

**P1 : 03→09 2016**

**P2 : 03→09 2017**

# METHOD (2) Action



Coordinating  
physician



GP



Physio-  
therapists



Medical  
advisor

Situation institution

Adequation to resident  
condition

Check-ups

Coef 6 or 8



# METHOD (3) evaluation

## Reconstitute stay



Each resident : days present (+/- physiotherapy )

## Statistical units

- Resident - day
- Resident - day - physiotherapy

R1    

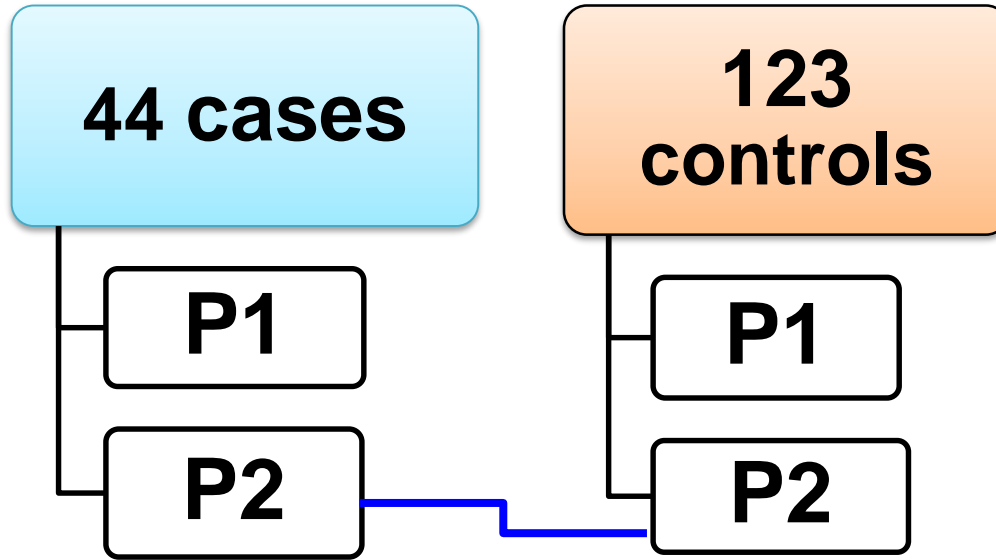
R2  



6 (resident-day)

3 (resident-day-physiotherapy)

# METHOD (4) evaluation

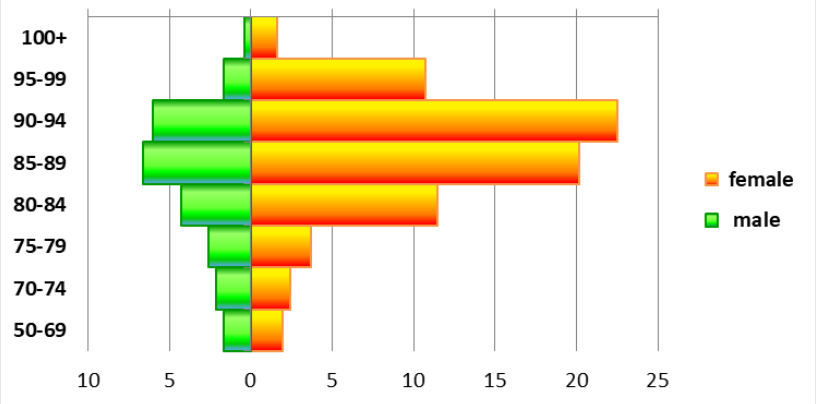


- Global results
- By institution
- Physiotherapists presents  
P1 P2

- Physiotherapists
- Physiotherapists  
≠ 44 cases

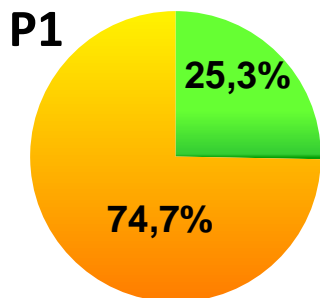
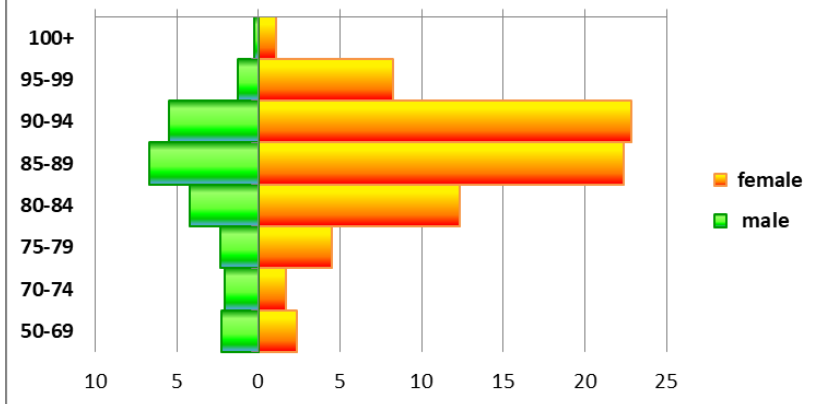
# RESULTS (1) comparison residents physiotherapy 44

P1 %

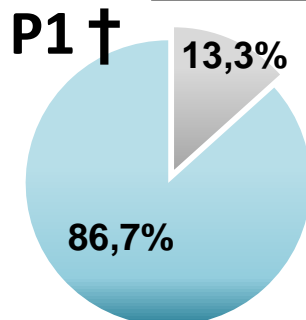
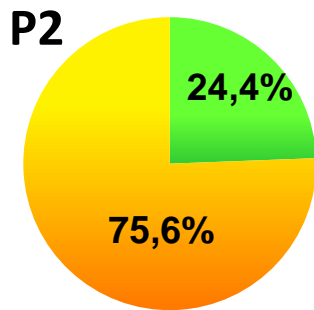


$\chi^2$   
P=0.07

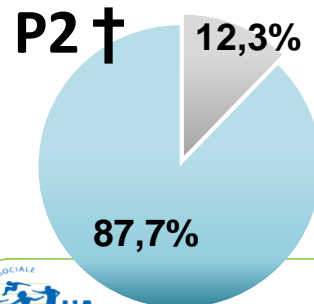
P2 %



$\chi^2$   
P=0.5



$\chi^2$   
P= 0.3



# RESULTS (2) Check-ups / Coef 9,5

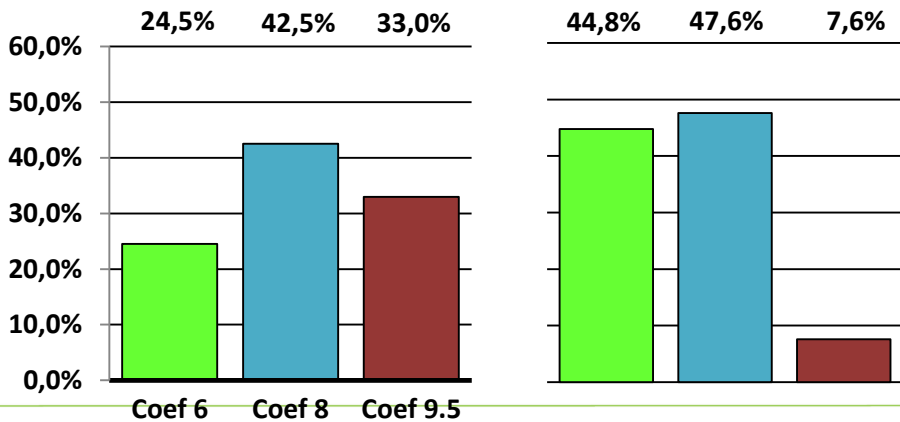
• Check-ups	☹️	+ 0,04 %	NS
• Rate coef (6 - 8 - 9,5)		P1 :87%	P2 :89 %

**44 cases**

$\chi^2$  P <0,0001

**P1**

**P2**

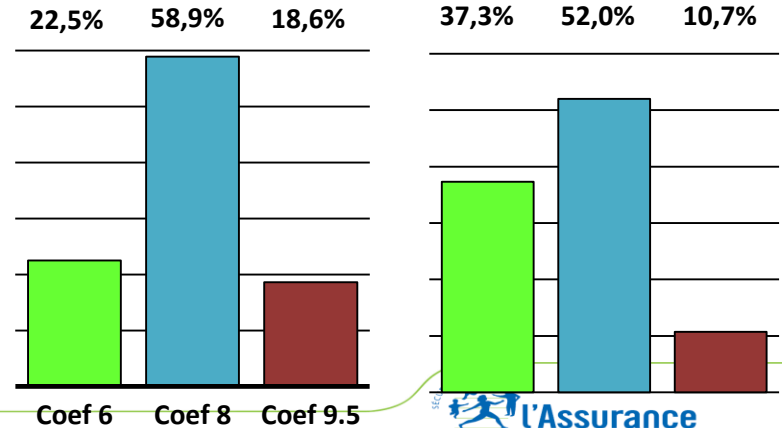


**123 controls**

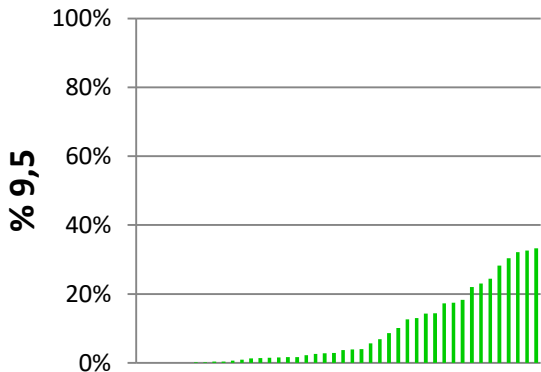
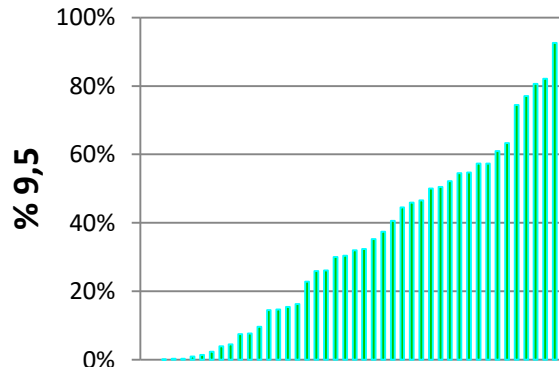
$\chi^2$  P <0,0001

**P1**

**P2**



# RESULTS (3) Coef 9.5 : cases / physiotherapists

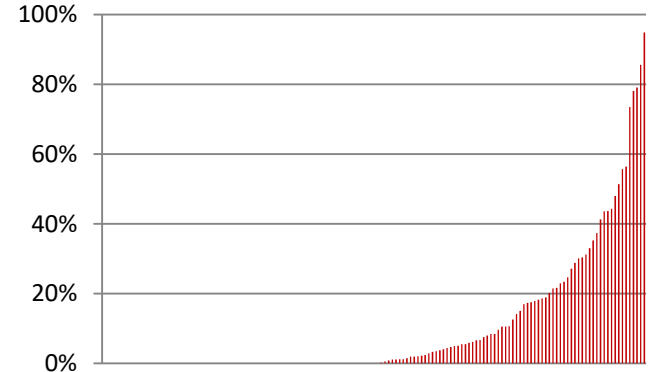
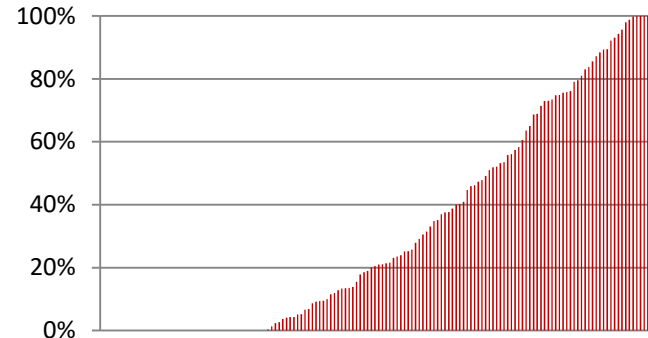


44 CASES

P1

P2

PHYSIOTHERAPISTS



# RESULTS (4) – Evolution coef 9.5 P2

03 - P2	04 - P2	05 - P2	06 - P2	07- P2	O8 - P2	09 – P2
8,70 %	7,53 %	8,69 %	7,76 %	7,48 %	6,70 %	6,85 %

Dr A	Physio 1	High % 9.5
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Dr A	Physio 2	Low % 9.5
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# RESULTS (5) – Examples

Monsieur

Jacques

Monsieur

André

Numéro :

Numéro :

Prescription relative au traitement de l'Affection de

Prescription relative au traitement de l'Affection de

.Seances de rééducation des deux membres inférieurs  
marche et équilibre ---Nombre---40---

.Seances de rééducation des deux membres inférieurs  
marche et équilibre ---Nombre---40---

resident_ano	first name	SEX	date of birth	age	instit ano
Resident_1484	JACQUES	1	28/09/1922	95	INSTIT8
date physio	DAY	PRS	COEF	physio ano	Dr ano
06/07/2017	THURSDAY	AMK	<b>8</b>	physi_72	Dr_13

resident_ano	first name	SEX	date of birth	AGE	instit ano
Resident_1491	ANDRE	1	21/06/1923	94	INSTIT8
date physio	DAY	PRS	COEF	Physio ano	Dr ano
13/03/2017	MONDAY	AMS	<b>9,5</b>	Physi_27	Dr_13

# RESULTS (6) – Physiotherapy expenses

	44 Cases		123 Controls	
	P1	P2	P1	P2
<b>(Resident-day with physiotherapy) cost</b>	<b>17,72 €</b>	<b>16,07 €</b>	<b>17,30 €</b>	<b>16,41 €</b>
<b>Difference</b>	<b>- 1,65 €</b>		<b>- 0,89 €</b>	
<b>Evolution</b>	<b>- 9,3%</b>		<b>- 5,2%</b>	
<b>Savings</b>	<b>243 000 €</b>		<b>244 500 €</b>	

- (resident-day) cost 44 cases P1 P2  $p < 0,0001$
- difference (case -controls)  $p < 0,0001$

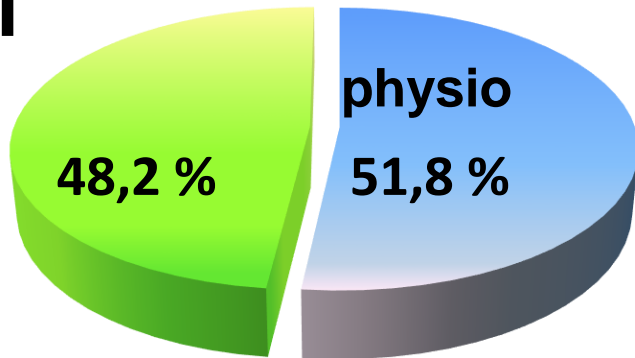


# RESULTS (7)

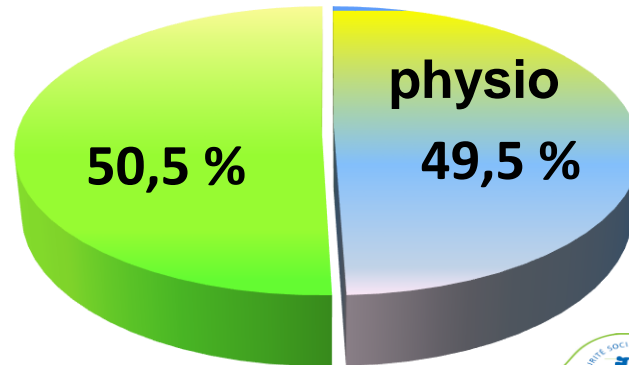
- Reduction rate 9,5 coefficient
- Reduction average price (resident-day-physiotherapy)
- Increase % (resident-day-physiotherapy) ?

% (resident - day- physio)

P1



P2



# THANK YOU FOR YOUR ATTENTION

