

# An International Comparison of Anti Doping Testing\*

► ARE WE CLOSE TO STANDARDISATION AND  
HARMONISATION ?

► COLORADO SPRINGS      15<sup>TH</sup> OCTOBER  
BILL CUDDIHY

# STARTING OFF POINT.....

- ▶ WADA COMMITTED TO STANDARDISATION AND HARMONISATION
- ▶ IS THERE A LEVEL PLAYING FIELD IN TERMS OF TESTING FREQUENCY?
- ▶ THIS STUDY CONFINES ITSELF TO OUT OF COMPETITION TESTING ONLY
- ▶ CAN WE DETERMINE IF INCREASING TESTING FREQUENCY HAS A DETERRENT EFFECT?

# Tests per million by NADOs 2017 (urine + bloods for hGH etc)

COUNTRY	TEST RATE	COUNTRY	TEST RATE
1.FINLAND	493	13.GERMANY	175
2.NORWAY	459	14.JAMAICA	169
3.NEW ZEALAND	359	20.GREAT BRITAIN	112
4.SWEDEN	345	21.FRANCE	111
5.BELGIUM	318	38.RUSSIA	38
6.SWITZERLAND	305	41.USA	30
7.PORTUGAL	293	....CHINA	8
8.DENMARK	262	....INDIA	2.4
9.IRELAND	237	....PAKISTAN	0.35
10.AUSTRIA	211	....INDONESIA	0.22

# TRACK and FIELD, ELITE ATHLETES

- ▶ RESOURCE—ATHLETICS 2019, editor Peter Matthews

The Annual of the Association of Track and Field Statisticians

Top 50 performers in each T+F Olympic event, 22 men, 21 for women

(avoided duplication—eg 100m and 200m, 54 men and 82 women)

Identified 1,046 men and 968 women, total 2,014

IAAF view; “..it shall be able to rely on robust and relevant national anti-doping programmes proportionate to the international success of the athletes and the extent and forms of doping in the countries in question”

# ELITE ATHLETE POPULATION

COUNTRY	NUMBER	COUNTRY	NUMBER
USA	338	POLAND	44
KENYA	160	SOUTH AFRICA	41
GERMANY	91	AUSTRALIA	38
ETHIOPIA	90	SPAIN	38
RUSSIA	79	UKRAINE	37
GREAT BRITAIN	72	ITALY	36
JAMAICA	69	BELARUS	33
CHINA	67	BRAZIL	27
FRANCE	57	SWEDEN	24
JAPAN	53	CUBA	23

# ELITE ATHLETES

▶ NED	21	▶ UGA	13
▶ IND	20	▶ FIN	13
▶ CZE	19	▶ NGR	12
▶ BEL	17	▶ TTO	12
▶ TUR	17	▶ NZL	11
▶ MAR	17	▶ QAT	10
▶ COL	16	▶ SUI	7
▶ POR	15	▶ VEN	6
▶ NOR	15	▶ IRL	5
▶ BRN	14	▶ DEN	2

# COMPARING LIKE WITH LIKE

- ▶ TOP 5 COUNTRIES
- ▶ THEN SELECTED COUNTRIES WHERE ELITE ATHLETE POPULATION ROUGHLY CORRESPONDS WITH POPULATION OF COUNTRY INVOLVED
- ▶ ONLY CONSIDERING COUNTRIES WITH POPULATIONS IN EXCESS OF 35 MILLION
- ▶ USA, KEN, GER, ETH, RUS, GBR, FRA, UKR, POL, CAN.

# COMPARISON OF NADOs

COUNTRY	ELITES	OOC FIGURES	RATE
USA	338	1357	4.0
KENYA	160	545	3.4
GERMANY	91	1685	18.5
ETHIOPIA	90	266	2.9
RUSSIA	79	662	8.4
GBR	72	443	6.2
FRANCE	57	331	5.8
POLAND	44	244	5.5
UKRAINE	37	222	6.0
CANADA	35	257	7.3



# COMPLETE COMPARATIVE OOC TESTING

COUNTRY	ELITES	NADO	IAAF	TOTAL	RATE
USA	338	1357	890	2247	6.6
KENYA	160	545	1306	1851	11.6
GERMANY	91	1685	394	2079	22.8
ETHIOPIA	90	266	635	901	10
RUSSIA	79	662	126	788	10
GB	72	443	225	668	9.3
FRANCE	57	331	118	449	7.9
POLAND	44	244	98	342	7.8
UKRAINE	37	222	68	290	7.8
CANADA	35	257	20	277	7.9

# SELECTED OTHER COUNTRIES

COUNTRY	RATE
IRL	58
DEN	55
SUI	45
TUR	38
FIN	20
SWE	17
NOR	14
ESP	13
ITA	9
POR	6

# COMPARING ADRVs

- ▶ APPLES AND ORANGES
- ▶ NO RELIABLE INFORMATION ON PREVALENCE OR PATTERNS OF DOPING IN DIFFERENT COUNTRIES
- ▶ DIFFERENT LEVELS OF SOPHISTICATION IN TERMS OF DOPING
- ▶ DETECTION RATES VARY AS A RESULT

# ADRVs\* 2013-2016 as proportion of OOC TESTING FIGURES

COUNTRY	ELITES	OOC TESTS	TEST RATE	ADRVs	RATIO
USA	338	2247	6.6	22	5
KEN	160	1851	11.6	39	10.5
GER	91	2079	22.8	4	1
ETH	90	901	10.0	9	5
RUS	79	788	10.0	99	62.5
GBR	72	668	9.3	3	2.5
FRA	57	449	7.9	31	34.5
POL	44	342	7.8	5	7.5
UKR	37	290	7.8	17	29.5
CAN	35	277	7.9	5	9

# TURKEY

- ▶ 2013 ADRVs....51, 2014....2, 2015.....3, 2016....2
- ▶ 2012 TOTAL TESTS.....44, all urine, 2 OOC.
- ▶ 2013 TOTAL TESTS.....382 urine tests, 54 OOC
- ▶ 2014 TOTAL TESTS.....666 urine and blood tests
- ▶ 2015 TOTAL TESTS.....1145 urine,blood and ABP tests
- ▶ 2016 TOTAL TESTS.....1597 urine,blood and ABP tests
- ▶ 2017 TOTAL TETST.....1272 urine,blood and ABP tests

# DOES THE THREAT OF INCREASED TESTING HELP PREVENT DOPING?

- ▶ INITIALLY THOUGHT OF DOING INTERNATIONAL COMPARISON BY QUESTIONNAIRE BUT QUESTIONNAIRES ARE SELF SELECTING AND OF DUBIOUS RELIABILITY
- ▶ LITERATURE RESEARCH NO RELIABLE FIGURES FOR PREVALENCE OF DOPING
- ▶ MAJOR DIFFERENCES IN TYPE AND FREQUENCY OF DOPING
- ▶ VARIATIONS IN MOTIVATING FACTORS FOR DOPING AND LEVELS OF SOCIAL DISAPPROVAL OF DOPING

# PROPOSAL FOR POSSIBLE STUDY

- ▶ DR. ELISH KELLY, ECONOMIST, ESRI
- ▶ SINGLE COUNTRY STUDY
- ▶ SELECTED SPORT(S) INFORMED ABOUT PROPOSED VERY LARGE INCREASE IN TESTING (THE TREATMENT GROUP)
- ▶ TEST AS NORMAL AND MONITOR OUTCOME, COMPARE TO BEHAVIOUR OF OTHER SPORTS THAT DID NOT RECEIVE ANY INTERVENTION/TREATMENT (THE CONTROL GROUP)
- ▶ COUNTRY WITH STATISTICALLY SIGNIFICANT RULES VIOLATIONS